

Riparian and Water Quality

Road and drill pad construction for oil and gas exploration and phosphate mining would affect surface water by changing flow patterns and water quality. Increased runoff and erosion on disturbed land would cause some increased rates of suspended and bed load-sediment transport in stream channels. Timber harvest would increase erosion and cause a subsequent increase in sedimentation of streams and a decrease in water quality, mainly from road building activity.

The limited amounts of increased surface disturbance under this Alternative and the use of best management practices and standard operating procedures in the mineral development and timber harvesting program, should result in slight increases in sedimentation and decreases in water quality. Variances would be so slight that they could not be distinguished from the normal observed seasonal fluctuations.

By the use of standard operating procedures and best management practices (see Part I), the BLM will meet or exceed Idaho State water quality standards. Monitoring will be conducted to check compliance and effectiveness of these practices and procedures, and they will be refined and modified so that they protect beneficial uses such as fisheries and drinking water.

Under this Alternative, 7.87 miles of streams with riparian habitat would be proposed for disposal. This is approximately 6 percent of the riparian habitat in the PRA. Of the 7.87 miles of stream habitat to be disposed of, 3.57 miles were inventoried and found to be in good to fair condition. Forty acres of marsh-wetland would be disposed of under this Alternative.

Riparian vegetation, water quality, and stream bank condition were factors considered in evaluating riparian habitat. There are 2.75 miles of riparian habitat that would continue in a downward trend. This is because the BLM has limited ownership in these watersheds, stream segments are short (less than one mile), and the poor conditions are often caused by land management practices on private lands adjacent to these parcels. The management decision is not to invest funds on these allotments, but to intensively manage the allotments with higher resource values in order to improve them. In some cases, livestock use could be reduced and the condition of riparian zones would improve; however, the size of these parcels within the total allotments make this impractical to do.

There are 3.15 miles of riparian habitat that would be managed primarily for condition improvement because of existing fisheries values or severe erosion problems. This is approximately 9 percent of the miles of riparian habitat with potential to be improved. These streams are all in "Improve" allotments and currently show a downward or unstable trend. Riparian pastures would be created by 6.75 miles of fencing. Grazing utilization on key riparian vegetative species in these pastures would be limited to 50 percent. There

are 87.97 miles of stream and riparian habitat that would remain in their present condition. These streams are stable in trend. See Appendix C.

In general, impacts to water quality, fisheries habitat, and riparian habitat from surface disturbing activities such as mining, timber harvesting, and road construction would be mitigated on a site-specific basis through the application of standard operating procedures and general best management practices.

Impacts to riparian zones due to heavy utilization by livestock would be reduced by elimination of season long grazing, especially grazing of riparian areas in the months of June, July and August. If grazing is allowed during the hot growing season, utilization of key riparian species should be limited to 50 percent.

Of the streams inventoried, 51.82 miles were inhabited by fish. If season long grazing is eliminated in riparian areas and utilization of key riparian species is limited to 50 percent, the existing fishery streams will improve in quality and likely increase in mileage. Fish habitat will be improved by leaving overstream cover to provide security, shade, and lowered water temperatures for fish as well as reducing sediment flow into waterways.

Under Alternative A, 1.35 miles of fishery streams would be expected to improve; 1.0 miles would continue to deteriorate; and approximately 49.47 miles would remain unchanged.

Soils and Watershed Management

About 163,150 acres of public land having soils sensitive to soil erosion would be subject to heavy use by ORVs in this Alternative. This includes 8,500 acres in the Pocatello Off-Road-Vehicle Plan for Bannock County. The result of this heavy use is continued soil erosion.

Oil and gas exploration activity on sensitive soils on public land would be controlled by provisional options provided in the seasonal and standard lease stipulations.

Reclamation of 52 acres of the Woodall Mountain mining area would stabilize mine tailings and reduce erosion rates.

About 867 acres of agriculture trespass lands would be restored to native range, thereby reducing annual erosion.

About 808 scattered acres of commercial forest without restricted management practices would have some short-term erosion rates of more than 5 tons per acre and long-term erosion rates of less than 5 tons per acre.

Full fire suppression for the PRA gives the area the best management for reduced erosion following wildfires.

Other than a few small wildlife juniper treatments and wildlife seedings, no land treatments are planned for this Alternative. Small wildlife and range improvements would only have limited short-term erosion impacts approaching 5 tons per acre per year. Impacts on sensitive soil areas would be mitigated. Each one would be addressed in individual activity plans and environmental assessments.

Economics

Native Americans

There would be no economic impact on Native Americans under this Alternative.

Minerals

This Alternative would have no economic impact on the minerals industry in the economic region.

Livestock

Initially, there would be 24,061 AUMs available for livestock under this Alternative. This would generate direct earnings of \$521,300. The total economic impact would be \$1.3 million (including the multiplier effect). These levels of earnings would represent 0.5 and 0.1 percent, respectively, of the farm and total earnings (1983) in the PRA.

This level of AUMs would generate direct employment of 22 jobs. Including the multiplier effect, the total number of jobs generated would be 66.

In the short-term, there would be a loss of capital value of between \$283,000 and \$1.3 million.

In the long-term (15 years), there would be 24,361 AUMs available for livestock under this Alternative. This would generate direct earnings of \$527,800. The total economic impact would be \$1.3 million (including the multiplier effect). These would represent 0.5 and 0.1 percent, respectively, of the 1983 farm and total PRA earnings.

This level of AUMs would generate direct employment of 23 jobs. Including the multiplier effect, the total number of jobs generated would be 67.

In the long-term, there would be a loss of capital value of between \$266,000 and \$1.2 million.

Appendix E shows how these earnings, employment, and capital value estimates were made.

Recreation

Recreation activities would generate expenditures of \$1.7 million under this Alternative. Utilizing the earnings to gross output ratio for the retail trade industry, this would convert to direct earnings of \$694,000. This would represent 0.5 percent of the PRA retail trade earnings. The multiplier effect would increase total earnings to \$1.5 million. This would be 0.1 percent of the total PRA earnings.

The direct earnings would generate 64 jobs in the retail trade industry, while the total earnings would account for 109 jobs spread throughout the local economy.

Appendix E shows how these earnings and employment estimates were made.

Lumber and Wood Products

Under this Alternative, there would be 380 thousand board feet of timber harvested annually. This would lead to direct earnings of \$90,658. This would represent 0.04 percent of the 1983 PRA manufacturing earnings. The total earnings (including the multiplier effect) would be \$200,700, which would be 0.01 percent of the total PRA earnings in 1983.

Direct employment generated would be four jobs. Including the multiplier effect, the total employment generated would be 10 jobs.

Project Costs

Range improvements necessary to implement this Alternative would cost \$75,900. Wildlife improvements would cost \$19,640. There would be no recreation facilities (recreation sites, multiple use trails) constructed under this Alternative. The total cost of these improvements would be \$95,540.

Revenues and Receipts to Local Governments

This Alternative would have no significant impact on revenues generated or receipts to local governments.

Summary

This Alternative would have minimal economic impacts. In the long-term, capital value of AUMs could be reduced by as much as \$1.2 million. Improvements needed to implement this Alternative would cost \$95,540.

Access

Under Alternative A, public access to approximately 21,400 acres (8 percent of the PRA) as identified in the two MFP documents would ensure the continued use

of existing roads and trails. Trespass problems would be minimized and visitor management would improve. Upgrading of some of the access routes would have both positive and negative effects depending on the extent, location, and degree of upgrading needed.

Additional access would have a slight adverse impact because of chance of littering and some ORV use outside of designated roads and trails.

ALTERNATIVE B (PREFERRED ALTERNATIVE)

Minerals Management

Alternative B impacts on minerals availability are nearly the same as in Alternative A.

Solid Leasable Minerals

Under Alternative B, the lands open for solid mineral leasing encompass 598,581 acres, or 93 percent of the total acres administered for solid leasable minerals (See Table 4.1). Under Alternative B, 44,378 acres (7 percent) are closed to solid mineral leasing which is an increase of 5,483 acres (1 percent) closed when compared to Alternative A. The increase in acres closed to leasing includes 977 acres of proposed RNAs, 2,706 acres of ACECs and 1,800 acres of Downey PWR. Of the total 44,378 acres closed to leasing, 5,733 acres (453 more than Alternative A) have a low potential for leasing and the remainder have no potential. The additional low potential 453 acres are located in the Stump Creek and Travertine Park ACECs. The land closures would not significantly affect the lands open for solid leasable mineral exploration and development. Less than 3 percent of the total lands open to leasing are currently under lease.

The status of the active, inactive, and proposed phosphate mining operations would not change under Alternative B. The phosphate ore production from those lands administered by the BLM (not including USFS lands) during the life of this RMP would total about 4.5 million tons (same as Alternative A). This production represents a commitment of resources, but is not significant when compared to the total leased phosphate resource base of 554 million tons.

The impacts from phosphate prospecting and exploration will be minimal and short-term due to existing mitigating measures, State and Federal regulations, and site-specific environmental requirements.

Fluid Leasable Minerals

Oil and Gas/Geothermal

The lands open to oil and gas leasing total 354,508 acres, or 90 percent of the total land administered for oil and gas. This is the same as Alternative A, the existing situation (Table 4.1, Appendices: Map 3, Alternative B). Lands available for geothermal leasing total 348,566 acres (90 percent) (Same as Alternative A).

NSO stipulations would occur on 30,499 acres, or 8 percent of the total area administered for both fluid minerals. The NSO restrictions are for the protection of recreation, watershed, and cultural resource values. This Alternative includes 5,678 acres, or 23 percent more acres with NSO stipulations compared to Alternative A. The additional acreage consists of 2,706 acres of ACECs, 977 acres of RNAs, and 1,995 acres of cultural sites. The NSO stipulations impact 3,000 acres with moderate oil and gas potential and 20,863 acres with high potential (Appendices: Map 3 and Map 10).

Geothermal potential is low in all of the PRA and is not affected by this Alternative.

Locatable Minerals

Lands open and closed to mining claim location are the same as in Alternative A (Appendices: Map 3, Alternative B, and Map 11).

The lands open to mining claim location total 330,250 acres (85 percent) (see Table 4.1). There are no Congressional withdrawals affecting location. Other executive branch closures total 51,051 acres. BLM closures total 6,196 acres, and include 4,688 acres with high potential and 594 acres with moderate potential for locatable minerals.

There are no stipulations which would significantly affect exploration activities. An Environmental Assessment would be written under CFR 3802/3809.

Mineral Materials

The lands open to mineral materials disposal total 311,793 acres, or 80 percent of the total lands administered for mineral materials (see Table 4.1). This is 7,064 acres less than would be available under Alternative A. The additional acres consist of 2,706 acres of ACECs, 997 acres of RNAs, 1,386 acres of communication sites and public water reserves, and 1,995 acres of cultural sites (Appendices: Map 3, Alternative B, and Map 12). A total of 15,668 acres would be closed to mineral material disposal for the protection of recreation, watershed, and cultural resource values.

Alternative B also would include the following additional impacts on minerals from proposed management activities:

1. A total of 17,068 acres of public land would be disposed of by sale and exchange. This would have little impact to the minerals program due to the low mineral potential associated with these areas.
2. A total of 1,934 acres would be closed to mineral exploration on a seasonal basis to protect sensitive soils.
3. A total of 130,000 acres would have seasonal restrictions to protect wildlife (same as Alternative A).
4. A total of 2,706 acres of Area of Critical Environmental Concern would require filing a plan of operations in accordance with 43 CFR 3809 for any locatable mining proposed, even if the area of disturbance is under 5 acres.

Lands

Under Alternative B, 17,068 acres would be identified for disposal from Federal ownership. The lands identified for disposal would have to meet screening criteria (see Standard Operating Procedures, Part I) that eliminates the likelihood of significant adverse environmental impacts.

Approximately 30,669 acres would be closed to right-of-way development to protect wilderness values. Another 42,251 acres would have special stipulations to protect watershed and wildlife values.

Acquisition of 9,687 acres of private land and an estimated 9,880 acres of State land would be proposed to support wildlife, recreation, and other resource programs. This would be done mainly through the land exchange.

Approximately 403 acres would remain under lease or permit for the protection of recreation sites (e.g., yurt system and ski area).

The impacts associated with this Alternative would be similar to Alternative A, only to a lesser degree. The overall impact to management efficiency would be beneficial because fewer disruptions and dislocations would affect people authorized to use the land.

Range Management

The stocking rate would be 29,969 AUMs under this Alternative. This would be a 20 percent increase from the current 5-year average use and a 2.8 percent increase from the current active preference.

The long-term stocking rate is 34,276 AUMs. This would be a 12.6 percent increase from the initial stocking rate of 29,969 AUMs and a 29.9 percent increase from the 5-year average of 24,061 AUMs. Under this Alternative,

there would be 7,200 unallotted acres. In the absence of livestock use, it is estimated that 70 percent of the unallotted acres would remain in mid or late seral condition, while 30 percent would advance from mid or late seral to late seral and potential natural community.

About 17,068 acres would be identified for disposal from Federal ownership. Based on an average stocking rate of 7.28 acres/AUM, the transfer would result in a loss of 3,344 AUMs. Both short-term (3-5 years) and long-term (5+ years) are considered minimal to none, since the lands would no longer be under BLM administration. Table A.2 in the Appendix gives detailed information on disposal category lands.

Under this Alternative, approximately 25,000 acres would be scheduled for allotment management plan development. This would involve about 11,000 acres of brush control, 240 acres of brush control and seeding, 54 water developments, 10 miles of fencing, and 1,500 acres of former agricultural trespass returned to native vegetation. The brush control would change approximately 5,000 acres of mid and early seral ecological range condition to late seral. The seedings would change 240 acres of mid or early seral range condition to disturbed. There would be an additional 4,307 AUMs available for livestock resulting from the implementation of grazing management systems and range improvements. This increase of vegetative density will improve soil stabilization throughout the 25,000 acres scheduled for allotment management planning.

Under this Alternative, the following 20.15 miles of stream would be managed to improve stream condition:

	<u>Miles</u>	<u>Allotment</u>
Graehl	0.90	4005
Graves	0.40	4112
Horse Creek	0.60	4005
Stump Creek	0.90	4018
Stump Creek	0.25	4045
Pegram Creek	0.40	4329
Handman Hollow	0.25	4015
Green Canyon	0.50	4053
Landers Creek	0.40	4236
Wolverine Creek	0.20	4092
Deadman Creek	0.25	4112
Negro Creek	0.25	4320
Negro Creek	0.45	0006
Eighteen Mile Creek	0.35	4162
Blackfoot River	0.20	0006
Blackfoot River	2.70	4320
Blackfoot River	2.30	4112
Blackfoot River	3.00	4112
Blackfoot River	1.90	4112

	<u>Miles</u>	<u>Allotment</u>
Blackfoot River	0.20	4316
Blackfoot River	0.90	4430
Blackfoot River	0.50	4430
Bear River	0.10	0023
Bear River	0.90	4253
Sheep Creek	0.25	4160
Pegram Creek	0.70	4122
Meadow Creek	<u>0.40</u>	4136
Total	20.15	

The remaining 70.89 miles of stream would remain in their present good to fair condition.

This would be accomplished through fencing, initiating a grazing system, or a combination of the two. These methods would increase both plant vigor and density, stabilize streambank sluffing, and reduce water temperature, sedimentation, and livestock fecal contamination over 20.15 mile, or 122 acres, of riparian areas throughout 26 grazing allotments. Short-term (3-5 years) impacts would be a noticeable increase in plant vigor and density and a decrease in livestock coliforms. Streambank stabilization and a decrease in both water temperature and sedimentation would show up in long-term (5+ years) impacts.

ORV activities would continue to have negative impact (i.e., gates left open, fence cutting, harassment of livestock, decrease in vegetative cover, and hill/gully development responsible for both on-site and off-site erosion) especially in the following allotments:

1. Trail Creek Allotment #6098
2. Rapid Creek Allotment #6082
3. Bancroft Allotment 36032
4. Toponce Allotment #3342
5. Sheep Creek Hills Area
6. Bear Lake Plateau Area
7. Blackrock Allotment #6097

Under this Alternative, all of the above allotments except Sheep Creek Hills and Bear Plateau are scheduled for allotment management plans. ORV activities must be specifically addressed within these areas. Livestock would continue to be harassed near unfenced campgrounds and streams.

Four RNAs, Travertine Park ACEC, and 11 recreation sites would be closed to livestock grazing. The Downey Watershed ACEC would have restricted provisions for grazing. The RNAs, ACECs, and campgrounds involve 2,580 acres. Both the short-term and long-term impacts would be negligible in the RNAs since each area is presently protected.

Activities within the wildlife program do not significantly impact the range proposals within this Alternative. No problem can be found with the stocking rate between domestic livestock and big game animals.

The range and forestry programs are expected to exist in harmony. The only impact to range that may occur would be positive since the removal of timber would increase favorable grass and browse species for livestock utilization. The minerals program indicates that phosphate leases exist on 1,800.22 acres where BLM manages both surface and subsurface. The 1,800.22 acres are differentiated in the following manner:

	<u>Acres</u>
1. Active (where active mining exists) Henry 80	80
2. Inactive (where active mining has occurred) Stauffer 160 Woodall 370	530
3. Undeveloped leases	<u>1190.22</u> 1800.22

Currently, BLM has 80 acres within the active mining designations and 530 acres in the inactive designations, unallotted for grazing. The areas within the lease areas, however, have not been actively mined. There has been no loss of vegetation or soil disturbance.

The BLM has some Taylor Grazing Act Section 15 grazing leases scattered throughout the undeveloped lease areas (1,190.22 acres). No negative impacts from mining are anticipated to the range program for both the short-term or long-term.

If portions of the present undeveloped mineral lease areas become active, the short-term impact to grazing would be negative since disturbed areas would virtually eliminate grazing. However, because of mitigating measures (seeding disturbed areas), the long-term impacts would be positive since the forage would be replaced.

Impacts to Vegetation

The long-term ecological range condition in the PRA under this Alternative, would be 2 percent potential natural community; 74 percent late seral; 22 percent mid seral; 1 percent early seral and 1 percent miscellaneous.

The long-term trend would be 30 percent upward, 68 percent static and 2 percent downward.