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4.0 ENVIRONMENTAL CONSEQUENCES

Chapter 4 describes the effects on the human environment of the Proposed Action and alternatives described in Chapter 2. The human environment is interpeted comprehensively to include the natural and physical environment and the relationship of people within that environment. Environmental consequences are usually described as being direct or indirect. Direct effects are caused by the action and occur at the same time and place. Indirect effects are caused by the action, and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may be induced changes. Effects include ecological, aesthetic, historic, cultural, economic, social, or health. Effects include both beneficial and adverse effects.

Many of the proposed changes are largely administrative and would have little direct effect on the environment. They are intended to improve agency administrative efficiency and effectiveness, improving consistency across the BLM or meeting other nonenvironmental objectives. This should result in management decisions that have greater support and sustainablility. They may, however, result in indirect effects on the physical, biological, social or economic aspects of the environment.

Because these are regulatory proposals, BLM does not have site-specific information relating to their application on the ground. As a result, the impact analyses are necessarily general and programmatic. If a key element as listed in Chapter 2 is not addressed, then it has been determined that it has no direct or indirect effect.

4.1 ASSUMPTIONS

The following general assumptions were made for purposes of analysis of direct and indirect effects of the proposed action and alternatives. Many of these assumptions represent general trends and are not intended to be precise forecasts of the future.

- The time periods for analysis are
    - Short-term—5 years
    - Long-term—20 years
- BLM budgets will be flat over the 20-year analysis period.
- There will be no change or a slight decline in demand for forage for livestock over the analysis period.
- There will be continued population growth and pressure on public lands for multiple uses.
- Recreation use on public lands will continue to increase.
- Water demands will exceed supplies and there will be continued drawdowns.
- There will be periods of drought.
- The number of species listed under the Endangered Species act will continue to increase.
- Invasive species will continue to spread.

- Wildfire risk and frequency will increase.
- Public interest in archaeological sites and in heritage tourism will continue to increase.
- BLM will achieve "appropriate management level" in the wild horse and burro program by 2007.
- There will be no significant changes in the laws governing public lands.
- PM10 air quality problems will continue to increase in the West.
- There will be continued increases in energy–mineral development (regionally significant in some areas).

4.2 ALTERNATIVE ONE: NO CHANGE IN REGULATIONS (NO ACTION)

The direct and indirect effects on the human environment of the continuation of existing grazing regulations as outlined in Chapter 2.1 is presented in this section.

4.2.1 Grazing Administration

The present grazing regulations provide some opportunities for cooperative stewardship of public land resources. However, some of the administrative mechanisms for assessing and changing grazing management to achieve desired conditions on public rangelands are neither practical nor efficient and, as a result, do not encourage the development of partnerships. Some elements of the present regulations, such as the provisions on range improvement ownership and the 3-consecutive-year limit on nonuse, discourage or impede cooperative working relations with the permittees or lessees. Consideration of economic and social issues in the NEPA document associated with changes in grazing use is not prescribed or consistently applied. There are also inconsistencies in other processes, including cooperation with State, County or locally established grazing boards, providing review opportunities to affected permittees or lessees and the interested public on biological assessments and evaluations, and data used to support rangeland health determinations. Also, the present regulations do not conform with the 10th Circuit Court decision regarding Conservation Use.

The BLM would continue to use an interdisciplinary team approach to identify and analyze the effects of proposed actions and alternatives on the human environment. Critical elements of the human environment identified in NEPA would be addressed in all environmental assessments or environmental impact statements. If a critical element is not affected, a negative effect statement would be included in the NEPA document. Critical elements include air quality, areas of environmental concern, cultural resources, farm lands both prime and unique, floodplains, Native American religious concerns, threatened or endangered species, hazardous or solid wastes, drinking and groundwater quality, wetland or riparian zones, wild and scenic rivers, and wilderness. If there is no effect on an element not on the critical element list, such as social, economic, and cultural considerations, then the NEPA document would generally besilent on that particular issue.

Changes in grazing use, either a suspension or an increase of permitted use, would continue to be authorized within the existing regulations. The level of change would be established through a grazing decision or a documented agreement with the permittee or lessee. The timeframe for implementing a change in grazing use would be determined on a case-by-case

basis, and the BLM would use the grazing decision or agreement to establish the timeline for the change.

Title to new, permanent rangeland improvements developed under Cooperative Range Improvement Agreements (CRIAs) would be maintained solely in the name of the United States. Range improvements developed before 1995 that are jointly titled between permittees or lessees and the United States would continue to be jointly titled. The number of rangeland improvements being developed on an annual basis has decreased by 25% since 1995, when regulations were changed to require that title to cooperative range improvements would be solely in the United States, rather than shared with a cooperator. The decrease in the number of range improvements is attributable to a number of factors, including decreasing availability of public funds and shifting BLM work priorities. The 1995 change in the CRIA title provisions may also have been a factor in the decrease. It is projected that there would be approximately 1,200 new rangeland improvement projects developed each year over the next 5 years.

The present regulations do not contain language specifically requiring cooperation with State, County, or locally established grazing boards. However, the regulations do include a general requirement that the BLM cooperate with State, County, and Federal agencies in the administration of laws and regulations relating to livestock, livestock diseases, sanitation, and noxious weeds. Many BLM field offices would continue to cooperate and coordinate with locally established grazing boards based on this general provision; however, the level of cooperation would be variable, depending on the individual field office.

Biological assessments are prepared to determine if formal consultation or conference with the U.S. Fish and Wildlife Service or National Marine Fisheries Service (Section 7 of ESA) is required. The process for providing the affected permittee or lessee, States, and the interested public an opportunity to review biological assessments and biological evaluations would not be clarified in the no-action alternative. This lack of clarification would result in continued inconsistencies across the BLM in the extent of review opportunities provided to affected permittees or lessees, States, or interested publics on biological assessments or biological evaluations.

Permittees or lessees could apply for and the BLM could approve temporary nonuse for as long as 3 consecutive years. After the 3-year period has elapsed, the permittee would be required to make full use of the grazing permit or lease. If the BLM determines that additional nonuse would benefit achieving resource objectives, then the authorized officer would issue a grazing decision or enter into an agreement with the permittee or lessee to suspend the permitted use in whole or part. However, this presents a possible deterrance from a permittee's or lessee's standpoint for requesting nonuse and detracts from cooperative management. In addition, the grazing decision or agreement process would create additional workload on the grazing administration and a delayed timeframe for addressing needed changes to grazing management.

The assessment and evaluation of standards of rangeland health would continue in accordance with the present regulations. A determination of achievement (or nonachievement) and identifying significant causal factors for nonachievement would continue to be based on available inventory, monitoring, or assessment data and information. Determinations would continue to be made using assessment information where monitoring data are not available. The credibility of determinations made solely on the basis of assessment information would continue to be challenged through administrative or judicial processes on some allotments and watersheds.

When existing grazing management is determined to be a significant factor in failing to achieve a rangeland health standard, the timeframe for taking appropriate action to ensure the allotment is progressing toward meeting the standard is no later than the start of the next

grazing year. This timeframe can create severe limits on effective communication, cooperation, and consultion with Federal, State, and local governments; Tribes, permittees, and interested publics; for conducting ESA consultation; and developing appropriate alternatives for NEPA analysis. Because of this, decisions to change grazing use to achieve standards of rangeland health are often subject to appeals and litigation.
These challenges create significant costs to BLM, causing diversion of resources from other high-priority tasks.

In accordance with the 10th Circuit Court ruling, conservation use would not be authorized. Language in the existing rule is inconsistent with this ruling.

Grazing preference would continue to refer to the superior or priority position against others for the purpose of receiving a grazing permit or lease and would not include the total number of animal unit months (AUMs) on public land apportioned and attached to the base property. Permitted use would remain defined as the forage (AUMs) allocated under the guidance of a land use plan, with active use continuing to be the present authorized use. These definitions have and continue to cause confusion and inconsistent use of terminology.

The interested publics would be required to inform the authorized officer in writing that they wish to be involved in the decision-making process for management of livestock grazing on an allotment. When an interested public has completed the notification process, the BLM would include that entity on the mailing list of interested publics. This inclusion would be for an indefinite period of time and the entity would be maintained on the mailing list and provided with documents and invitations to participate until he or she requested that his or her name be removed. This could result in additional administrative costs for maintaining the mailing list and for sending out mailings, regardless of the involvement by the interested publics in the consultation process.

The BLM would notify all interested publics on the mailing list of any proposed actions that requireconsultation, cooperation, and coordination. The interested public may decline to be involved in developing a plan for an action or activity requiring a decision. After a decision is issued, the party still has standing to appeal the decision, even though they declined to be involved in the development of the proposed action. The lack of involvement early in the process would increase the administrative costs of providing materials when it is not desired, and of responding to appeals by those who decline to be involved in development processes.

The BLM would continue to consult, cooperate, and coordinate or seek review from the interested publics on actions that relate to day-to-day business activities such as designating and adjusting allotment boundaries; increasing active use; implementing reductions in permitted active use; emergency closures or modifications to grazing use; reissuing grazing permits or leases; modifying permits or leases; and issuing temporary, nonrenewable grazing permits or leases. This requirement could affect the BLM's ability to make timely decisions, such as reduction of use or emergency closure decisions for protection of resources.

The BLM would continue to consult, cooperate, and coordinate or seek review from the interested publics on actions that relate to activities that are not within the day-to-day operations of the BLM. These actions would include apportioning additional forage, developing or modifying grazing activity plans, planning the range development or improvement program, and reviewing grazing evaluation reports.

To the extent allowed by the law of the State in which public land is located, water rights acquired for the purpose of livestock watering on public land would be acquired and maintained in the name of the United States. Where the United States acquires the water right under these circumstances, access to water in an allotment used by a number of permittees, or where there is a new permittee resulting from a transfer of preference, the BLM would manage them rather than having them controlled by a third party.

The present definition of "satisfactory performance" would remain in the negative form, referring to "what is not satisfactory performance" rather that "what is satisfactory performance." Retaining the negative statement form would have a minimal effect on grazing administration.

Changes in permitted use could be authorized by the BLM as long as the changes are maintained within the terms and conditions of the permit. The regulations contain no text regarding what is meant for "within the terms and conditions of the permit." Therefore, the approval of the applications would be subject to definition by the authorized officer. This would create the potential for inconsistent application within the grazing administration program.

The present regulation provides that the BLM may calculate service charges reflecting processing costs, and may adjust the charges as costs change. The BLM presently assesses a $10 service charge for crossing permits, transfers of preference, and replacement or supplemental billings that are not initiated by the authorized officer. The BLM would not recover processing costs based on the existing service charge. It is projected that the service charge would remain indefinitely at $10 under the no action alternative.

All three sets of prohibited acts would be maintained within the grazing regulations. The first and second set of prohibited acts would be utilized by the BLM in the administration of grazing allotments. The third set, regarding prohibited acts related to violations of Federal or State laws or regulations, would also be maintained, but based the historical trend, this set would infrequently be used for administration of grazing permits.

The appeal process would continue as outlined within the present regulations. A proposed grazing decision would be issued, and in the absence of a protest or comments, the proposed grazing decision would become the final grazing decision. If an appeal is filed on a decision to modify or renew a grazing permit or lease, and a stay is requested and granted, then the grazing activity would continue at the previous year's level of authorized grazing use pending resolution of the appeal. If the permittee or lessee is an applicant who did not have authorized use the previous year, including a grazing preference tranferree, then the grazing activity would be authorized according to the final decision. When a decision is issued for immediate protection of public land resources (§4110.3-3(b)), a stay of the decision could result in that protection being delayed pending resolution of the appeal.

If a stay is not requested, or is requested and not granted, then the final decision would be implemented pending resolution of the appeal.

In a 1998 decision, the Interior Board of Land Appeals (IBLA) ruled that the BLM was to treat biological assessments as decisions for the purposes of protest and appeal. This requirement to treat all biological assessments related to grazing actions as grazing decisions would lengthen the consultation process under ESA and would delay making implementation of grazing decisions, including changes in grazing management practices that may be required to achieve rangeland health standards.

4.2.2 Vegetation

The vegetation communities on the public lands would continue to change over the next 20 years. Wildfire, prescribed burning, and pecipitation patterns would continue to be major factors influencing vegetation community composition. Vegetation cover would be expected to slowly increase.

Vegetation communities that are dominated by brush and/or invasive species are not expected to improve except where BLM has land treatment and/or weed control programs. Under this alternative substantial rancher participation in land treatment projects would not be expected.

The BLM would continue to evaluate the conditions of the public lands and determine where current livestock grazing practices are hindering achievement of rangeland health standards. Where BLM determines that current grazing practices are a significant cause for not meeting standards, it would take appropriate action by the start of the next grazing season. The short timeframe for developing and implementing appropriate action has, and would continue to result in, analysis and deliberation that on occassion, is insufficient, leading to expedient rather than effective decisions. This could be evident in situations where adequate time was not provided to formulate a comprehensive plan to address the vegetative concerns.

4.2.2.1 Riparian and Wetland Vegetation

Current trends in riparian condition and restoration are discussed in Section 3.5.2. While the apparent trend in riparian condition at the national level is positive, long term trends are not yet clear based on data from 1998 to 2001. Recent success in applying grazing management to achieve riparian improvement objectives have been documented and almost always involves cooperation with the livestock operator. Under current regulations, overall riparian conditions would remain static or improve from current conditions in most locations over the long term. Some regions would show noticeable improvements in riparian conditions, while other regions would show little change. Assuming the trend in riparian conditions observed from 1998 to 2001 is representative, improvement of riparian areas classified as "properly functioning" would continue to occur at a rate of 1.5% annually. If improvements in "functioning at risk- trend upward" were included, the rate of improvement would be 3.5% per year.

Improvements in riparian and aquatic habitat would result from the continuing implementation of rangeland health standards and grazing guidelines. Where changes in management are necessary, they are expected to include combinations of: segregation of riparian pastures from uplands, changes to the season of livestock use, changes in duration of use (or amount of utilization), changes in the overall amounts of use in riparian pastures, and livestock exclusion at some sites.

Current regulations establish a framework within which individual management plans for riparian areas are developed through close coordination with permittees or lessees and interested publics. Frequently, time and energy are diverted into routine administration issues rather than addressing long term management direction.

Management changes prescribed for riparian restoration most often rely on changes in the timing, duration and season of use. Current regulations allow flexibility in the rate of implementation of new management strategies.

The 3 consecutive year limit for nonuse would continue to limit cooperative options with the operator that benefit riparian and aquatic resources. The BLM could continue to address longer periods of rest, by decision or agreement, but temporary nonuse beyond 3 years would not be available.

Current regulations offer the ability to make determinations without monitoring data. While this feature allows flexibility to prioritize monitoring expenditures, it does not set a minimum standard for decision making. While the absence of the requirement can lead to quicker decisions, some would be made without monitoring data. The risk is that the quality of decisions may be affected, and inappropriate or unnecessary management may be applied.

Riparian vegetation would benefit from quick decisions and management responses where the strategies applied are effective. However, current regulations don't always provide a timeframe that allows for adequate coordination, consultation and cooperation to fully

analyze and develop multiple management alternatives, as well as complete required administrative process.

4.2.3 Fire and Fuels

Overall, the present grazing regulations have minimal affects on the ability to reach a more historical fire regime.

The existing grazing regulations provide the necessary tools to allow the resting of pastures from livestock use so that vegetation manipulation treatments can be conducted on the public lands. Provisions are available to negotiate with affected permittees or lessees and to provide the necessary rest following treatment to allow rehabilition objectives to be met.

The limiting factors for conducting treatments would be tied more closely to funding levels, the ability of the permittee or lessee to be able to withstand the resting of a pasture or allotment from livestock grazing, and legal challenges of vegetation manipulation decisions.

Interested public participation could lead to delays in implementation of treatments. The present grazing regulations would allow the BLM to authorize a displaced permittee or lessee to graze another allotment if there is one open to grazing use that is not being used by another permittee or lessee. However, if allotment is not available then the permittee or lessee would be forced to rent pasture, buy hay or sell part of the herd.

4.2.4 Soils

4.2.4.1 Upland Soils

Short-term environmental consequences of the present management alternative would be minimal except on a local scale. Natural disturbance regimes such as wildfire or high intensity rainfall events would potentially negatively impact local upland watershed conditions by increasing erosion, sedimentation, and runoff. Restoration projects such as prescribed burning and seeding would potentially benefit local conditions by improving watershed cover. Climatic events, such as drought, would have greater short-term effects on upland watershed conditions than present management in the analysis area.

Long-term environmental consequences of present management would be maintenance or a slow improvement of upland soil and watershed condition due to implementation of rangeland health standards and guidelines and restoration efforts. These beneficial impacts would derive from improved vegetation and plant litter that provides watershed cover and decrease soil compaction. This would result in reduced erosion, sedimentation, and runoff; healing of gullies; greater soil water availability for plants; improved soil aeration; improved biological soil crust cover; and greater soil macro- and microorganism activity. The beneficial impacts would be most pronounced in the higher elevation, moister portions of the analysis area. Beneficial impacts would be slowest and most difficult to achieve in the drier portions of the Tropical-Subtropical and Temperate Desert divisions.

The adverse impact of a long-term drought could partially limit the enhancement of upland soil and watershed conditions depending upon the severity of the drought. The increased acreage of rangeland ecosystems dominated by exotic annual grasses and noxious weeds would result in reduction or alteration of important components of the soil biological community on impacted acres which would make restoration more difficult. Long-term erosion, sedimentation, and runoff would also be increased on acreage dominated by exotic

annual grasses because of increased wildfire risk and reduced plant cover during severe drought years. Cheatgrass die-off has occurred on over two hundred thousand acres in Nevada in 2003 leaving these sites exposed to severely accelerated erosion and loss of long-term sustainability. The cause and long-term implications of this die-off are unknown.

4.2.4.2 Riparian Soils

Short- and long-term environmental consequences of the present management alternative would be similar to those of upland soils except that the high moisture content of riparian soils could accelerate responses to improved management practices. Improved riparian area management would help stabilize lotic and lentic riparian areas where the water or sediment supplies are out of balance, promote growth of deep-rooted, riparian vegetation that helps dissipate stream energy, armors streambanks, and filters sediment from the stream. Displacement of desirable, deep-rooted riparian vegetation by invasive, exotic riparian plants would potentially reduce streambank protection and reduce groundwater available for maintenance of healthy riparian conditions on invaded acreage.

4.2.5 Water Resources

In the short term, climatic variation would have more effect on upland watershed conditions than would present management. Cover, runoff, and accelerated erosion would only slightly change, and the upland watershed conditions would not improve in the short term.

In the long term, improved upland watershed condition would result from implementation of rangeland health standards and guidelines. Climate, soils, and livestock management strategies are key considerations in the implementation of management plans to improve upland watershed condition. Though tempered by site and climatic variability, gradual improvement to upland vegetation and ground cover may occur. Improvement in vegetative cover could, over time, improve the precipitation infiltration rates, reducing surface runoff and erosion.

Continued efforts to improve and maintain vegetative cover may move upland drainage networks toward proper functioning condition over an extended period of time. In the short term, the frequency and size of runoff events would not change.

The overall hydrologic function of riparian stream systems would remain static or improve slowly. Soil erosion and sediment discharge caused by streambank trampling in riparian areas would remain static or decrease slightly over the long term. Thus, the beneficial hydrologic function of these riparian areas (floodplain storage and flood peak reduction, water quality maintenance, and groundwater recharge) would remain static or improve slowly.

Water quality will remain highly variable, remaining static or improving slightly, with improvement in vegetative cover on uplands. Nonpoint source pollutants generated by livestock grazing, including sediment yields and other pollutants (bacteria, salinity and nutrients), would slightly decline. Nonpoint source salinity in the Colorado River basin would decline less than in other desert shrub communities, because of the slow vegetative response to management.

4.2.6 Air Quality

Overall, air quality is expected to be within standards as the existing grazing regulations have maintained or improved the vegetative cover on the soils in the West. Air quality on public

lands is directly affected by the protection of soil by vegetation. Where soil is exposed, then there is a possibility for air quality problems as a result of dust caused by wind over exposed soil. The existing regulations require meeting rangeland standards which include protecting watershed function. Watershed function and rangeland health is tied to proper management of livestock grazing which affect the vegetative resources that protect the watershed.

4.2.7 Wildlife

This environmental impact analysis focuses on how the proposed livestock grazing regulatory changes may affect wildlife and the habitat they require on the 160 million acres of public lands grazed by domestic livestock in the western United States. Under Alternative One, the No Action Alternative, risks and benefits to wildlife and wildlife habitat, are not expected to change.

Currently, rangeland standards and guidelines would continue to be applied, phase in of increases or decreases in active use would be optional, rangeland health assessments could be made with or without monitoring data, and applications for nonuse could not be approved beyond three years. Administrative changes such as relocating satisfactory performance requirements to another section of the regulation and revising service charges have little or no effect on wildlife or wildlife habitat. When a violation is related to the grazing use authorized by BLM, the BLM can take additional action against a permittee or lessee after the individual has been convicted by a court of law or otherwise found to be in violation of several different Federal or State laws or regulations. Although this section of the regulation is rarely applicable, this provision may have some positive effect on wildlife by discouraging grazing permittees from violating these laws.

Currently, the time-frame allowed for making changes in grazing use to move toward or meet rangeland health standards may be too short to allow proper coordination to implement sound, sustainable decisions. Therefore, actions that would help improve upland and riparian wildlife habitat are sometimes delayed either by the implementation of unsound decisions or by litigation. However, there are also times that wildlife species may benefit from the discretionary rapid implementation of changes in grazing use that BLM managers can currently implement.

4.2.8 Special Status Species

This environmental impact analysis focuses on how the proposed livestock grazing regulatory changes may affect special status species and the habitat they require on the 160 million acres of public lands grazed by domestic livestock in the western United States. Under Alternative One, the No Action Alternative, risks and benefits to special status species and their habitats are not expected to change and are the same impacts as for wildlife in section 4.2.7.

4.2.9 Wild Horses and Burros

This environmental impact analysis focuses on existing regulations for livestock grazing as they affect wild horse and burro populations and their herd management areas on the 34 million acres grazed by both domestic livestock and wild horses and burros in the western United States. Under the current regulations, there would be little change in the wild horse and burro populations on public lands.

4.2.10 Recreation

Many recreational activities will be enhanced or diminished by the natural condition of the lands on which they are located. Under current management on the majority of public lands, recreational experiences would be maintained or, where land health standards are not yet attained, improved as upland and riparian conditions improve through actions taken to attain rangeland health standards. Effects to public lands under existing management would continue to be greatest in higher and moister areas where grazing use is greatest, and least in the driest areas that improve at slower rates.

As vegetation cover increases, recreation uses including sightseeing, wildlife watching, and enjoyment of naturalness would be maintained or improved. Many dispersed recreational activities would be expected to improve as the vegetation condition in which they are set improves.

Fishing and hunting opportunities and success rates would be expected to improve or diminish as range health improves or diminishes. Many recreational activities, although not directly focused on pursuits such as sightseeing or enjoyment of naturalness, benefit from aesthetic land qualities that form the background for the overall experience. The experience enjoyed by more highly developed recreational activities (such as OHV) may not be affected by rangeland health. Both commercial and non-commercial activities would be similarly affected. Revenues from commercial recreation types that rely on healthy ecosystems could be increased or decreased as range health improves or deteriorates. Revenues from some commercial recreation activities (for example races) would be generally unaffected by rangeland health.

4.2.11 Special Areas

The existing grazing regulations mostly allow for the protection of special area values from inappropriate livestock grazing use. However, in application, delays to the implementation of actions to improve conditions in special areas could occur as a result of the lack of time to insure good sustainable decisions that would result in long term improvement in rangeland health. Requiring changes in livestock grazing use by the start of next grazing season would not allow proper time to coordinate with permittees or lessees and interested publics. As a result the decisions could be less comprehensive and effective. This is deemed a minor impact in most special areas as they are normally in reasonably good rangeland health which is why they are managed as special areas. Therefore, significant livestock grazing issues are not typical in special areas. Other key elements of the existing regulations would not have significant impacts to special areas.

4.2.12 Paleontological and Cultural Resources

The no action alternative would mean continuation under present regulations. Review of a federal undertaking by a cultural resource specialist is required during specific project planning or implementation at the local level, land use planning initiatives at the state or regional level, or for regulation revision at the national level.

Of the present regulations, the timeframe for taking action to meet rangeland health standards could have the potential to effect on-the-ground actions which consequently can affect heritage resources. Under the present regulations a very short timeframe is specified for implementing appropriate action when livestock grazing has been determined to be a signficant factor in not achieving standards or conforming to quidelines for grazing

administration. This timeframe may not be sufficient to complete adequate cultural resource surveys and, if necessary, develop mitigation or protection strategies in compliance with legal mandates.

New project developments have been and will continue to be analyzed for affects on heritage resources on a case-by-case basis. Cultural resource surveys precede management actions that could damage cultural resources (BLM Manual 8100, Cultural Resource Management). Historic and prehistoric archaeological sites found during these surveys would be protected in accordance with the National Historic Preservation Act of 1966 (revised) and other laws or executive orders as stated in the Code of Federal Regulations (36 CFR 800).

The present regulations allow grazing permits to be cancelled following a conviction of a violation of a law or regulation related to the "illegal removal or destruction of archaeological or cultural resources". This clause, though it has never been used, could give protection to fragile and nonrenewable resources that may be important to regional and national heritage.

4.2.13 Economic Conditions

Overall, the local and regional economic effects of the No Action alternative would be minor. Effects would come primarily from continuation of some effects that may be currently ongoing, such as:

1. lower management flexibility for permittees and BLM,
2. potential lack of incentive for permittees to participate in range improvements,
3. potential economic effects on permittees due to the time constraints associated with making rangeland health determinations and implementing grazing decisions, and
4. continued lack of cost recovery for BLM for undertaking specific actions.

The following are the primary source of potential ongoing effects, although none of the provisions, either individually or cumulatively, is considered noteworthy:

* The present regulations do not specify a phase-in period for changes in active use. Consequently, changes in use (primarily reductions) greater than 10 percent can be implemented immediately which may have an adverse effect on permittees in that they would have little time to make alternative arrangements. However, there are no restrictions on phasing in changes in use, so grazing decisions can now, at the discretion of the decision maker, be phased in over a period of time.

* Statistics on range improvements and range improvement funding show there was a decline in numbers of projects and total funding by cooperators, starting in 1996, after implementation of the regulations and that over the past few years there has been somewhat of an increase, although this fluctuates annually. However, the statistics also show that there has been an overall decline in the annual number of range improvements since the 1980s. Consequently, it isn't clear how extensive the effect of the 1995 regulations on range improvement ownership has been.

* Maintaining the 3 consecutive year limit on nonuse may pose a hardship for permittees who may otherwise want or need to take nonuse for longer periods of time, either for resource-related or financial reasons. If a longer period of nonuse were to create improved rangeland conditions, then the 3-year limitation may forestall longer term economic benefits that could result from improved conditions.

* BLM would retain flexibility in the methods it could use to make rangeland health

determinations. However, once a determination is made that existing grazing management needs to be modified, BLM is required to take action no later than the start of the next grazing year which has put a strain on the agency's resources and has limited BLM's flexibility in managing workloads. For permittees, this relatively compressed timeframe could adversely affect their operations if potential changes in use are made more quickly than permittees could efficiently alter their operations. However, the requirement to take action prior to the start of the next grazing season could have a beneficial effect on long-term productivity if rangeland resources begin recovery sooner rather than later.

* Service charges do not presently cover the costs incurred by BLM (and, consequently, the public) so there would be a continued lack of cost recovery. Table 4.2.13.1 shows net cost recovery for grazing permit transfers, crossing permits, and supplemental grazing bills. Maintaining the current service charges would be beneficial for permittees.

4.2.14 Social Conditions

Under the present management, ranches would continue to face a difficult social climate. Drought, livestock price fluctuations, rising costs, and other factors will continue to make ranching an economic challenge. The number of smaller, or "hobby" operators will remain stable. Outside sources of income will, to a certain extent, buffer them from many of the ranch economic forces, but their numbers are constrained by the limited availability of small allotments. Other operators more dependent on the ranch for family income will be directly subjected to economic and social stress associated with public land ranching. Many feel strongly about passing the ranch on to children, but this is increasingly difficult. The levels of personal and family stress associated with uncertainty stemming directly from public land grazing management will continue to grow, though slowly.

The tenure of ranching will continue to change as well. Ranches change hands for a variety of reasons. Consolidation of commercially viable ranches will continue as the herd size necessary for retaining a family ranch continues to rise. In most areas, this will contribute to a decline in the number of commercial ranches, and operations will grow larger. The other ranch tenure issue concerns the nature of the new owners. Many ranches are being purchased for amenity reasons or subdivision. This trend is frequently related to difficulty in passing on a ranch to children. In other situations it is simply an expression of economic reality. In either situation, potential (though not certain) social effects include the removal of ranchers from local social networks, changes to social integration processes, a diminished role for ranchers in the local power structure and a potential loss of open space to subdivision.

Population change in ranching communities will continue. Much of the change is growth, while some communities are experiencing losses in certain populations and gains in others. An example would be losses to mining jobs where miners move out and retirees move into the community. While the economic importance of ranching overall will continue to decline, it will maintain important social dimensions. Ranchers buy inputs no matter how their industry is fairing. This provides a stable underpinning to some economic sectors such as fuel and groceries. The contribution may be small relative to the nonranching population, but it fluctuates little. This produces a belief on the part of ranchers and some local businesses that ranching provides a certain level of local economic stability. This is frequently cited as a good reason to keep ranchers in business.

A similar relation holds for social organization of communities. Ranchers will continue to have a high profile in their communities. Many community members view ranchers as a social constant in a growing community. As communities become more differentiated, ranchers fill a commonly held social role as reminders of the rural life newcomers and locals seek to retain. Ranchers will continue to receive some of the benefits from community stratification, but those relations will change as population growth brings a different universe

of economic relations to the community. Extra-local ties will continue to grow along with population. Finally, community integration will still rely on long-standing social networks in which ranchers play a prominent role. These networks are competing with a growing set of networks that are tied to larger social contexts outside of the community.

Recreation will continue to play a large and growing role in public land management from both individuals and organized groups. People remain in and migrate to both urban and rural areas of the West to enjoy the proximity of extensive recreation opportunities. They will retain strong attitudes about public land management for recreation and will continue to be readily involved in the management process as it pertains to grazing and other issues. Urban and rural growth throughout the region will supply more people each year with a wide variety of recreational interests. These interests will often clash among recreation groups. Primary conflicts will continue to revolve around the role of motorized vehicles on public lands, designation of special management areas that foster certain recreational activities and prohibit others, and the management of areas for recreational values instead of livestock. The primary concern of all recreation groups will continue to be access to public lands throughout the year for a wide variety of uses.

Under present management, conservation and environmental groups play a role in public land management that ranges from community-based conservation efforts to litigation. These efforts will continue. Many locally based groups are pursuing cooperative management strategies for grazing areas deemed to be important for their values, in addition to livestock forage. Such efforts continue to require much more time and resources than traditional organizing efforts for such groups. Local communities and ranchers will continue to have mixed opinions about such efforts, even as successful efforts outline how to best approach such situations. In addition, groups that started out as "local" are expanding and opening offices in other areas and States. This growth will increase the "watch-dog" orientation of these groups. Most such groups include educated participants who are generally opposed to public land grazing and will continue to provide a sharp challenge to management decisions concerning grazing.

4.2.15 Environmental Justice

Environmental justice is defined as the "fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of Federal, State, local, and tribal programs and policies" (IM 2002-164).

Describing the baseline situation from an environmental justice perspective involves demarcating the potentially affected area and identifying the low-income, minority, and tribal populations within that area. In a programmatic EIS of national scope, this is not feasible.

In the context of regulations governing grazing on public lands, environmental justice implications--if any--are likely to be driven by social and economic effects. For the no action alternative, the analyses of social and economic effects described here do not suggest any basis for identifying disproportionate effects on low-income, minority, or tribal populations.

4.3 ALTERNATIVE TWO: PROPOSED ACTION

The direct and indirect effects on the human environment of implementing the proposed regulatory amendments as described in Chapter 2.2 are presented in this section.

4.3.1 Grazing Administration

The Proposed Action Alternative would assist BLM in accomplishing its shared stewardship purpose in a manner that works well in the social and economic environment of affected communities. The proposed amendments to the grazing regulations would establish practical ways for permittees, lessees, affected state and local officials, tribes and the interested public to engage with BLM as partners to improve open space, watersheds, and habitat conditions for the next generation. The regulation amendments would improve cooperation with directly affected permittees and landowners; promote practical mechanisms for assessing change in rangelands and protecting rangelands by increasing monitoring activities; and enhance administrative efficiency and effectiveness, including addressing legal issues that need clarification.

Social, Economic, and Cultural Considerations in the Decision-Making Process: This regulatory change would result in greater consistency in the analysis of impacts to the social, economic and cultural elements considered in a NEPA document. Documenting consideration of impacts of proposed changes to grazing preference on relevant social, economic and cultural factors would make decisions or agreements resulting from NEPA analysis more sustainable. Clearly documenting consideration of these factors in addition to those required critical elements in NEPA would increase communication and cooperation with permittees or lessees. This would result in a higher likelihood of permittees or lessees participating in grazing management planning and implementation of decisions or agreements. Additionally, it can be anticipated that decisions or agreements that implement changes in grazing preference would be more comprehensive thus more likely to be realistic, practical, and achievable.

Implementation of Changes in Grazing Use: A change in active use, either an increase or a decrease, would be accomplished through the grazing decision process or a documented agreement with the permittee or lessee. If the change is greater than 10% of the total active use, implementing the change would occur over a five year period. Typically, adjustments would be implemented during the first, third and fifth years. During this time, additional monitoring and assessments could be conducted to determine if changes in active use are resulting in a movement towards achieving rangeland standards or land use plan objectives. This phase-in period allows the permittee or lessee greater opportunity to make economic and management adjustments to his operation in order to lessen any adverse impacts. This often results in improved cooperative relations and management between BLM and the permittee or lessee.

The 5-year timeframe would not be followed in cases where the permittee or lessee agrees to a shorter timeframe, or a shorter timeframe is required in order to comply with applicable law (i.e. Endangered Species Act). If a change in active use of greater than 10% is determined to be required, but it is also determined that soil, vegetation or other resources require immediate protection, or continued grazing use poses an imminent likelihood of significant resource damage, then the change, including total or partial closure from grazing, could occur with the issuance of a final decision which could be implemented immediately (subpart 4110.3-3(b)).

A five year phase-in of changes to active use and the requirement of monitoring data to assess changes in resource conditions would result in an additional workload and costs to the BLM. To accomodate the shift in workload associated with required monitoring, BLM would need to find alternative means of collecting monitoring data, and would reprioritize other tasks.

Range Improvement Ownership: Cooperative Agreements for new, permanent structural range improvements would reflect a shared title between the United States and the cooperator(s) in proportion to their financial or labor contribution toward the project's development and construction. Title to existing range improvements that are held solely in the name of the United States or cooperator(s) would continue to be held solely in the name of the United States. Allowing the cooperator(s) to hold title to structural range improvements in which they have an investment may stimulate an increase in private investments for the construction of range improvements.

Cooperation with State, Local, and County Established Grazing Boards: Adding the requirement to cooperate with State, local, or county established grazing boards in reviewing range improvements and allotment management plans would ensure a consistent community-based decision making process throughout the BLM. Field level range improvement and allotment planning programs would also benefit from the additional perspective that locally established grazing advisory boards could provide.

Review of Biological Assessments and Evaluations: The proposed rule identifies biological assessments as reports that the BLM is required to provide for review to the affected permittees or lessees, states having lands or responsibility for managing resources within the affected area, and the interested public. Providing this review opportunity during preparation would improve communication and understanding of resource and management issues and the rationale supporting grazing management decisions. It would also shorten the time needed for fully processing grazing permits when Section 7 consultation is required.

Temporary Nonuse: The current regulations limit the BLM's ability to extend temporary nonuse for more than 3 consecutive years. The proposed action eliminates the 3 year limitation. The BLM would be able to annually approve temporary nonuse for conservation and protection of rangeland resources beyond the current 3 consecutive year limit. There would be no limit on the number of consecutive years that nonuse could be approved. This is the simplest way to achieve temporary reduced use to respond to rangeland condition needs. In some cases, approval of an application for temporary nonuse precludes the need for BLM to issue a decision to temporarily suspend use. Temporary nonuse can also be approved for the personal and business needs of the permittee or lessee which would allow them to better manage their business, such as livestock sales that result in temporary herd size reductions. There is no additional administrative workload associated with this proposed rule. The rule allows cooperation between the BLM and permittee without requiring a separate administrative process to provide more than 3 consecutive years of temporary nonuse.

Basis for Rangeland Health Determinations: The evaluation of Standards of Rangeland Health and resulting determination would be required to be based on assessment and monitoring. Although this is often done where existing monitoring data is available, this requirement would provide for a consistent approach to making determinations of rangeland health. Acquiring and communicating the monitoring data and supporting rationale used to make a change in grazing management would result in improved cooperation and sustainable agreements or decisions. This new requirement for using monitoring data in addition to assessment information to make determinations on all allotments or watersheds would increase the workload within the grazing program. This workload increase would necessitate reprioritizating work or finding alternative means to collect monitoring data. It may impede the schedule states have established for completing watershed assessments. In addition, the monitoring requirement may delay the permit renewal process on areas where current monitoring data is not readily available.

Timeframe for Taking Action to Meet Rangeland Health Standards: The proposed rule recognizes the need for adequate time to formulate, propose, and analyze actions in an environment of consultation, cooperation and coordination. Providing up to 24 months

to develop a proposal, complete any required ESA Section 7 consultation, complete the NEPA process, including preparation of a rational analysis of alternatives, would result in better, more acceptable, comprehensive and sustainable decisions. This would have a long-term beneficial impact on the land.

Conservation Use: In accordance with 10th Circuit Court ruling, conservation use would be deleted from the regulations. Because BLM would not be issuing conservation use permits under any alternative, the deletion of these provisions would have no impact on BLM's grazing administration program.

Definitions of Preference, Permitted Use and Active Use: The new definition of grazing preference includes active use and use held in suspension. Grazing preference holders have a superior or priority position for the purpose of receiving a grazing permit and lease. Grazing preference includes livestock forage allocation on public lands and priority for receipt of that allocation, as determined through ownership or control of base property. Attaching or associating a public land forage allocation to or with base property provides a reliable and predictable way to connect ranch property transactions with the priority for use of the public land grazing privileges. This has been the basis for BLM's system of tracking who has priority for receipt of public land grazing privileges since the enactment of the Taylor Grazing Act. This proposed change would ensure that the term "preference" is used consistently.

Definition and Role of the Interested Public: The interested public would continue to be required to inform the authorized officer that they wish to be involved with an allotment or make comments on an allotment in order to participate in the decision making process. However, if a member of the interested public is not responsive or declines to participate in consultation, cooperation and coordination opportunities, then they would be dropped from the list of interested publics and would no longer be notified of such opportunities. This would result in some minor administrative cost savings associated with maintaining the interested public mail list and in mailing costs.

The specific actions requiring consultation, cooperation, and coordination or review and input from the interested public would be: (1) Apportioning additional forage; (2) Developing or modifying grazing activity plans (i.e., allotment management plans); (3) Planning range development or improvement programs; and (4) Reviewing/providing input on grazing evaluation reports, including biological assessments and biological evaluations.

Day to day management activities that would no longer require the consultation, cooperation, and coordination with interested publics would be: (1) Designating and adjusting allotment boundaries; (2) Reducing permitted use; (3) Issuing emergency closures or modifications; (4) Renewing/issuing grazing permit or lease; (5) Modifying a permit/lease; and (6) Issuing temporary non-renewable grazing permits. The proposed change does not prohibit BLM from including the interested public in these activities.

The clarity of the definition of the interested public and the reduction of actions that would require interested public involvement would enable the BLM to focus communication efforts on those interested publics who are involved in the significant issues occurring on grazing allotments. This increased focus should increase the efficiency of grazing management through the reduction of communication to individuals, groups, or organizations that are not providing input leading up to the decision making process on an allotment. The proposed action still maintains that proposed and final decisions are sent to the interested public. This change would require consultation with the interested public where such input would be of the greatest value, such as determining vegetation management objectives in an allotment management plan, or preparing reports evaluating range condition. This flexibility would allow BLM to take responsive, timely, and efficient management action without being required to first undertake mandatory consultation. All proposed and final grazing decisions

and associated NEPA documents, such as environmental assessments, would still be available to the public under the proposed action.

Water Rights: This rule would remove the requirement that livestock water rights be acquired, perfected, maintained and administered in the name of the United States. This proposed amendment would provide BLM greater flexibility in negotiating arrangements, within the scope of state processes, for consideration of watering facilities in states where the United States is allowed to hold a livestock water right. In those states, BLM would continue to have the option of acquiring the water right as long as we do so in compliance with state water law.

Satisfactory Performance of Permittee or Lessee: Under the proposed regulations BLM would limit the number of possible infractions that it would take into account for determining whether an applicant for a new permit has a satisfactory record of performance. Primarily, the proposed rule changes the definition of "satisfactory performance" from a negative (what is not satisfactory performance) to a positive (what is satisfactory performance). Also, the provision is moved from the mandatory Qualifications section to the Applications section. Implementing this rule change would have minimal impact on grazing administration.

Changes in Grazing Use Within the Terms and Conditions of the Permit: The proposed action would provide additional detail on what is meant by the phrase "within the terms and conditions of the permit or lease." The proposed change to "temporary changes within the terms and conditions of the permit or lease" means changes to the number of livestock for a period of use that BLM may authorize in any one grazing year. This would provide sufficient flexibility to BLM managers and permittees or lessees to address seasonal and annual changes, thereby supporting efficient and responsive management of public lands.

Service Charges: The proposed change in service charges will allow BLM to recover the costs of processing the applications.

Prohibited Acts: In the first set of prohibited acts it is proposed to clarify the provision which prohibits the placement of supplemental feed on public lands without authorization by adding "or contrary to the terms and conditions of the permit or lease". This will clarify the intent of this section to ensure strict compliance with the terms and conditions of the permit or lease.

In the second set of prohibited acts it is proposed to clarify that a violation of any of the prohibited acts in that section must occur on BLM administered lands to be considered a violation. In addition, it is proposed in order to clarify the relationship between the document that authorizes grazing, the permit or lease, and the requirement to pay grazing fees. The intent is to clarify that the grazing permit or lease is the document that authorizes grazing use on public lands not the annual grazing fee bill.

In the third set of prohibited acts it is proposed to clarify and limit BLM's enforcement authority by limiting its application to prohibited acts performed by a permittee or lessee on his allotment where he is authorized to graze under a BLM permit or lease. This change is intended to further ensure that the performance of the prohibited act is related to the permit or lease under which the violator is operating.

Grazing Use Pending Resolution of Appeals When Decision Has Been Stayed: The proposed provision would amend §4160.4 to clarify how the appeal of a BLM grazing decision, and a petition for a stay pending appeal, would affect the decision and continuity of ongoing grazing operations, if any. Grazing would continue even if a stay is granted because the Office of Hearings and Appeals regulations do not establish time frames for resolution of appeals. BLM is attempting to find a balance between the exhaustion of administrative remedies under the Administrative Procedure Act and its responsibilities under the Federal Land Policy and Management Act and Taylor Grazing Act. For instance, when a stay of a

decision concerning a permit or lease renewal or modification or a grazing preference transfer is granted, the applicant would continue to graze under the immediately preceding grazing authorization, subject to qualifications set forth in §4160.4(b). This provision should improve BLM's ability to regulate the occupancy and use of rangelands, safeguard grazing privileges and provide for the orderly use, improvement, and development of the range.

Treatment of Biological Assessments and Evaluationsin the Grazing Decision-Making Process: Biological assessments prepared for purposes of ESA Section 7 consultation identify what actions an agency is considering, so that the U.S Fish and Wildlife Service (FWS) or the NOAA Fisheries can prepare a biological opinion. In addition, consultation with affected permittees or lessees would be required under §4130.3-3(b). The biological assessment is a tool that the FWS and NOAA Fisheries uses to decide whether to initiate formal consultation under section 7 of the ESA. Therefore, it is not a proposed grazing decision that may be protested to BLM or final grazing decision appealable to OHA. If the formal consultation occurs and a biological opinion is issued which requires a change in the terms and conditions of a grazing permit or lease, then BLM will issue a grazing decision subject to protest and appeal. By providing that a biological assessment is not subject to protest and appeal, BLM through consultation with affected grazing permittees and lessees, FWS and NOAA Fisheries would be able to more efficiently and timely make changes in grazing management.

4.3.2 Vegetation

The Proposed Action Alternative is expected to:

1. Improve cooperation with all interested persons
2. Promote practical mechanisms for assessing change in rangelands by increasing monitoring activities
3. Enhance administrative efficiency and effectiveness

This alternative is expected to help BLM achieve vegetation resource management objectives. Improved cooperation with all interested parties is expected to lead to additional resources for public land improvements. Additionally, as BLM's administrative efficiency improves, the rate of achieving vegetation management objectives should accelerate. The speed of achieving vegetation management objective for specific sites would be governed by site-specific climatic conditions, management practices applied, and present state of the site.

Sites that are presently in stable-state vegetative communities are not expected to transition into another state as a result of changing grazing practices alone. Additional practices such as vegetation treatment would be required to achieve noteworthy changes in vegetation composition. These practices are much more likely to occur with the additional resources made available through partnerships.

While the overall long-term effect of the proposed action would accelerate achievement of public land vegetation objectives, there may be short-term adverse effects in allotments where vegetation recovery is delayed by the extended implementation timeframe. The following key elements of Chapter 2 have been specifically assessed:

Social, Economic, and Cultural Considerations in the Decision-Making Process: This alternative is expected to lead to improved cooperation and coordination in making necessary adjustments in grazing management. Cooperative grazing management will result in more rapid achievement of management objectives.

Implementation of Changes in Grazing Use: The proposed changes to the time frame provided for making changes in grazing use are expected to lead to greater mutual

understanding of vegetation goals and mechanisms to achieve these goals.

Where a reduction in grazing use is not urgent, a phased-in reduction over 5-years will not have substantially different effects than a shorter implementation period. Where resource damage is eminent and vegetation resources require immediate protection, the authorized officer may use authority under 43 CFR 4110.3-3(b) to make immediate adjustments in grazing use.

Substantial increases in livestock grazing in recent years have been limited. Where BLM is proposing to increase the grazing levels, the 5-year period would allow for on-the-ground testing of the higher levels prior to full implementation. BLM could monitor the adjustments each year and avoid increasing livestock grazing above the capacity of the public lands.

Range Improvement Ownership: This proposed change should provide increased incentive for cooperator investment in range improvements, improving livestock grazing management designed to achieve land use plan and activity plan objectives.

Cooperation with State, Local, and County Established Grazing Boards: Improved communication and coordination with these boards will stimulate greater support for BLM resource management plans and activity plans. Weed management and control can often be coordinated between BLM and private landowners through these boards, leading to more effective use of resources.

Review of Biological Assessments and Evaluations: This adjustment should improve review and coordination with permittees and interested publics resulting in greater understanding and acceptance.

Temporary Nonuse: The proposed regulation should increase flexibility of both the permittee and the BLM manager to react to such changes as forage availability, climate, economics, and stimulate greater support for short-term adjustments in livestock grazing levels, resulting in greater consistency with forage production levels.

Basis for Rangeland Heath Determinations: Requiring monitoring data as a part of the decision process in making Rangeland Health Determinations would result in a more convincing determination and thus may provide an improved foundation for actions where present use of the public lands needs to be adjusted. However, requiring monitoring for all determinations may result in additional monitoring requirements on lands that are considered low priority. For example, lands that are scattered small tracts and are not monitored by BLM will receive additional emphasis for monitoring. Because BLM's staff time is limited, the result will be less management emphasis on high-priority areas. Additionally, it could extend the timeframe for making rangeland health determinations in low priority areas without current monitoring information.

Timeframe for Taking Action to Meet Rangeland Heath Standards: Extending the timeline to take appropriate action where present livestock grazing practices are contributing to the public lands not meeting a standard for rangeland health provides additional time to design and implement a more comprehensive plan. Developing a comprehensive vegetative recovery plan has a greater probability of correctly addressing the vegetative concerns with a higher probability of success.

Definition of Grazing, Preference, Permitted Use, and Active Use: These changes in definitions would provide greater consistency and understanding for grazing administration, but would have little effect on vegetation resources.

Definition and Role of the Interested Public: This adjustment should allow BLM to make more timely decisions. Thus, it would have a beneficial effect on vegetation resources.

Water Rights: This change should stimulate greater permittee and lessee support for development of additional water resources on public land. The additional water

developments may assist in meeting BLM vegetation resource management plans and activity plans, providing an overall beneficial effect on vegetation resources.

Changes in Grazing Use Within Terms and Conditions of Permit or Lease: This change provides for consistent application of flexibility to make short-term adjustments in livestock grazing. Grazing will be more consistent with fluctuations in forage production and range readiness, and should have a beneficial effect on vegetation resources.

Treatment of Biological Assessments and Evaluations in the Grazing Decision-Making Process: This adjustment should speed up the process of consultation, allowing more timely implementation of decisions. Threatened and Endangered plant species would benefit directly from timely decisions and cooperative management.

4.3.2.1 Riparian and Wetland Vegetation

Under the Proposed Action Alternative, trends for riparian and wetland resources would improve with the implementation of some actions under consideration. Present trends in riparian condition and restoration are discussed in Section 3.5.2. While the apparent trend in riparian condition at the national level is positive, long-term trends are not yet clear on the basis of data from 1998 to 2001. Success in applying grazing management to achieve riparian improvement objectives has been documented and almost always involves cooperation with the livestock operator. The effects on riparian conditions that may occur as a result of proposed rule changes are improved cooperation resulting in sustainable management changes.

Under the proposed rule, overall riparian conditions would remain static or improve slightly. Some areas would show noticeable improvements in riparian conditions, while other areas would change little. Assuming the trend in riparian conditions observed from 1998 to 2001 is representative,improvement of riparian areas classified as "properly functioning" would occur at a rate of 1.5% annually. If improvements in "functioning-at-risk with an upward trend" were included, the rate of improvement would be 3.5% per year. The proposed action is expected to promote improvement at higher rates with the range of 1.5 to 3.5% per year, based primarily on the additional emphasis on communication, consultation, and coordination.

Improvements in riparian and aquatic habitat would result from the continuing implementation of rangeland health standards and livestock guidelines. Most changes in management are expected to include combinations of segregation of riparian pastures from uplands, changes to the season of livestock use, changes in duration of use (or amount of utilization), changes in the overall amounts of use in riparian pastures, and livestock exclusion at some sites.

Since individual management plans for riparian areas are developed through close coordination with permittees and interested publics, improvement in communication, consultation, and cooperation would promote more sustainable decisions. The proposed regulations would change the focus of communication, consultation, and cooperation efforts to emphasize those processes where long-term management direction is developed. While opportunities for consultation in these important processes are presently available, public dialogue, time, and energy are now frequently diverted into routine administration issues rather than addressing long-term management direction.

Implementation of changes in Grazing Use: Since management changes prescribed for riparian restoration most often rely on changes in the timing, duration, and season of use, the proposed rule change requiring a 5-year phase-in would not apply to most riparian management plans. Increasing grazing use in a phased-in approach is likely to avoid unanticipated adverse effects by making adjustments on the basis of the observation of effects

on riparian resources. Regardless of the timing of the use and the characteristics of the site, riparian resources would benefit from a progressive, monitored approach to changes in the level of grazing use.

Use of a phased-in approach for large grazing decreases avoids some risk to riparian resources to the extent it maintains cooperation and public support for changes in management. Because sites do not always respond in the short term to changes in grazing, including livestock exclusion or changes in the amount of grazing (Elmore and Betchta 1987; Clary et al. 1996), large changes without phase-in risk loss of user support if expected results are not achieved. In most instances, a cautious and progressively implemented management strategy that produces the intended results creates public support and understanding.

Temporary Nonuse: Eliminating the 3-consecutive-year limit for temporary nonuse would positively benefit riparian and aquatic resources. Removing the limit would increase flexibility and extend the timeframe available for riparian recovery.

Basis for Rangeland Health Determinations: The proposed regulations would require the use of monitoring data in making determinations. Although this feature limits flexibility in prioritizing monitoring, it establishes a minimum standard for decision making. The result may be improved quality and sustainability of grazing decisions. However, the commitment of funding to monitor lower priority areas may divert monitoring efforts from high-priority riparian areas.

Timeframe for Taking Action to Meet Rangeland Health Standards: Riparian vegetation would benefit from carefully considered and designed management responses. The proposed regulations would provide adequate time for coordination, consultation, and cooperation to evaluate and develop reasonable management options, as well as complete required processes. This approach would require careful management in riparian areas that are functioning-at-risk with a downward trend, where improper grazing use combined with a high stream-flow event could cause the system to become nonfunctional.

4.3.3 Fire and Fuels

Fire is a variable, dynamic force with diverse responses and effects. Understanding these processes and interactions is important in determining the role of wildland fire and its effects on the environment. Understanding fire as an ecological process and how it interacts with the environment is critical for developing land management objectives and sustaining rangeland health. The National Fire Plan has resulted in a higher priority being placed on treatment actions and more resources being provided to the fire program to increase treatment acres.

Overall, the proposed action slightly improves the ability to move toward vegetation management objectives because these regulation changes will aid in the reestablishment of fire regimes that more closely resemble that which occured historically. This is due to the increased time available to coordinate with permittees or lessees during the decision-making process of implementing actions to meet rangeland health standards. Additional time for coordination may result in concensus on vegetation treatment objectives and the actions needed to achieve them.

4.3.4 Soils

4.3.4.1 Upland Soils

The net short- and long-term effect of the proposed action would be to maintain the present condition of the upland soil resource through maintenance of adequate watershed cover. Where the effect on the upland soil resources on an individual allotment has the potential

to be adverse, BLM retains authority under 43 CFR 4110.3-3(b) to curtail grazing.

Implementation of Changes in Grazing Use: Phase-in of changes in active use over a 5-year period would have minimal effects overall but could have an adverse effect on an individual allotment where vegetation conditions fail to provide adequate protection from erosion. However, BLM retains authority under 43 CFR 4110.3-3(b) to curtail grazing to prevent significant resource damage.

Temporary Nonuse: Removal of the limit on consecutive years of nonuse could have a beneficial effect on upland soil resources in allotments where greater natural recovery of watershed cover is desirable. This rule change could also potentially increase BLM's flexibility to rest allotments effected by drought or restoration treatments and thus improve watershed vegetation cover and soil physical characteristics such as compaction. The improvements would be most pronounced in higher elevation, moister portions of the analysis area. Improvements would be slower and most difficult to achieve in the drier portions of the Tropical–Subtropical and Temperate Desert divisions.

Basis for Rangeland Health Determinations: Requiring the use of both standards assessment and monitoring data to determine if existing grazing management practices or levels of grazing use are significant factors in failing to achieve standards and conform to guidelines would have no long-term effect on upland soil resources.

Timeframe for Taking Action to Meet Rangeland Health Standards: Allowing the BLM as long as 24 months to formulate, propose, and analyze the appropriate action for addressing failure to meet rangeland health standards would have little or no adverse short-term effect on the upland soil resources and could have a positive long-term effect if it allows more time for developing a comprehensive plan that would help improve watershed cover. The long-term effect on upland soil resources of this rule change could be positive if it allows more time for developing a comprehensive plan that would help improve watershed cover.

4.3.4.2 Riparian Soils

The proposed rule would have no long-term adverse effect on riparian soil resources.

Implementation of Changes in Grazing Use: Phase-in of changes in active use over a 5-year period would not have any effects on riparian soils because reducing livestock numbers is seldom used as a restorative management tool in riparian area management.

Temporary Nonuse: Removal of the limit on consecutive years of nonuse could have a beneficial effect on riparian soil resources in riparian areas where greater natural recovery of desirable riparian vegetation has occurred. This and other rule changes that enhance desirable riparian vegetation density and vigor would improve riparian stability and increase growth of deep-rooted, riparian vegetation that helps dissipate stream energy, protects streambanks, and filters sediment and pollutants from the stream. This rule change could also potentially increase the Bureau's flexibility to rest allotments effected by drought or restoration treatments, and thus could improve riparian vegetation cover and soil physical characteristics such as compaction.

Basis for Rangeland Health Determinations: Requiring the use of both assessment and monitoring data to determine if existing grazing management practices or levels of grazing use are significant factors in failing to achieve rangeland health standards may have a short-term adverse effect on riparian soil resources but no long-term adverse effects. Riparian soils with poor vegetative cover are at risk of erosion during infrequent flooding. However, the BLM retains authority under 43 CFR 4110.3-3(b) to curtail grazing to prevent significant resource damage.

Timeframe for Taking Action to Meet Rangeland Health Standards: Allowing BLM as long

as 24 months to formulate, propose, and analyze appropriate action for addressing failure to meet rangeland health standards would have no adverse effects on riparian soil resources. The long-term effect on riparian soil resources of that rule change could be positive if it allows more time to develop a comprehensive plan that would help improve protective riparian vegetation density and vigor.

4.3.5 Water Resources

The proposed rule changes would have little or no effect on present water resource conditions. Streams that now meet State water quality standards and are part of properly functioning riparian ecosystems would remain in their present condition. Water bodies that fail to meet State water quality standards and streams that are functioning at risk or in nonfunctional condition will remain static until management changes are implemented, after which slow improvement would occur.

Implementation of Changes in Grazing Use: Many rangeland watersheds throughout the western United States are presently stressed as a result of ongoing drought. Drought conditions pose a barrier to prompt and effective implementation of restorative actions. Extended timeframes for implementation of changes in management may delay short-term watershed recovery but would not affect long-term watershed recovery.

Temporary Nonuse: Granting approval of nonuse for extended periods would have a beneficial effect on watersheds that are stressed by short-term climatic variation or cumulative effects from long-term grazing.

Basis for Rangeland Health Determinations: The proposed action requires additional assessment and monitoring data for evaluating and documenting rangeland health standards for compliance with State water quality requirements and BLM resource management objectives. In allotments with degraded channel morphology (function) and water quality that fails to meet State standards, those resource conditions would remain static until management designed to achieve desired vegetative cover is implemented. Implementation would initiate a gradual recovery process. Extended timeframes for monitoring would delay management; however, this may create opportunity for development of more effective management and accelerated recovery.

Water Rights: The proposed water right policy changes would have no effect on water resources. The proposed rule would increase the flexibility to cooperatively seek and perfect water rights with willing partners, where allowed by State water law.

4.3.6 Air Quality

Overall, the proposed action is expected to potentially improve air quality slightly when compared with the existing situation because of the improvement in vegetative cover as a result of implementation of better and more sustainable decisions in actions to move toward or meet rangeland health standards. The key elements of the proposed action that would have the most positive effect are as follows:

Basis for Rangeland Health Determinations—which requires the use of monitoring data so better and more accurate information is used for making determinations.

Timeframe for Taking Action to Meet Rangeland Health Standards—which extends the timeframe for implementation of the actions and therefore allows for better coordinated efforts.

4.3.7 Wildlife

This environmental impact analysis focuses on policy and regulation changes for livestock grazing as they affect wildlife populations and their habitats on the 160 million acres grazed by domestic livestock in the western United States. Most of the changes proposed under Alternative Two, the proposed action, are expected to have little or no effect on wildlife as the changes largely provide clarification of the existing regulations or bring the regulations into compliance with court orders. Other concerns will be addressed when this EIS is tiered to the local leve,l as when grazing permits are issued, BLM Offices are required to review the adequacy of existing environmental analyses. The potential concerns for wildlife species from changes in the grazing regulation are outlined below. Ramifications of changes to special status species are discussed in the next section.

Implementation of Changes in Grazing Use: Allowing the adjustment in active use in excess of 10% to be implemented over a 5-year period has the potential to negatively affect plants and wildlife. Changes in active grazing use in excess of 10% are infrequent. Much more common is a change in season of use or location of use. With the cooperation of the permittee or lessee, changes can be made immediately. Further, under 43 CFR 4110.3-3 (b) if the BLM determines that there is an imminent likelihood of significant resource damage, immediate changes can be made.

Temporary Nonuse: This alternative allows BLM to approve nonuse for longer than 3 consecutive years. This requirement may benefit wildlife by allowing a longer time period for habitat to recover from rehabilitation or other effects through application for annual temporary nonuse by the permittee or lessee in cooperation with BLM. However, BLM still reserves the ability to close areas to grazing if conditions warrant.

Timeframe for Taking Action to Meet Rangeland Health Standards: Providing the BLM time - up to 24 months - to develop, formulate and analze the appropriate action as well as complete consultation requirements and compliance with other laws such as NEPA and ESA has the potential for adversely affecting wildlife in the short term by delaying actions that may benefit wildlife species. As in the earlier discussion of "Implementation of Changes in Grazing Use," such impacts could be reduced if the BLM works cooperatively with the permittee or lessee to efficiently complete all planning and analysis in a timely fashion. cooperates, changes can be implemented immediately. It is anticipated that the extended timeframe would allow for the formulation of better and more sustainable decisions that would result in better resource conditions in the long term. Thus in the long run, wildlife may benefit from this provision.

4.3.8 Special Status Species

This analysis focuses on policy and regulation changes for livestock grazing as they affect special status species and their habitats. As discussed in the wildlife section, most of the changes proposed under Alternative Two, the proposed action, are expected to have little or no effect on special status species as the changes largely provide clarification of the existing regulations or bring the regulations into compliance with court rulings. Concerns about specific species will be addressed when this EIS is stepped down to the local level. When grazing permits are issued, BLM Offices are required to review the adequacy of existing environmental analyses. At this time, if it is determined that federally listed threatened or endangered species may be affected, a Section 7 consultation will be performed. When species become federally listed after the issuance of a grazing permit, additional conservation measure may be added. The potential concerns for special status species from changes under Alternative Two are outlined below.

While it's often best to manage native plant and animal communities or ecosystems, the ESA requires the agency to manage threatened and endangered species by individual species. Species that are considered special status species are those that are officially listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) as threatened or endangered; are proposed for listing, or are candidates for listing as threatened or endangered under the provisions of the Endangered Species Act (ESA); listed by a State in a category such as threatened or endangered implying potential endangerment or extinction; and those designated by each BLM western State Director as BLM sensitive. Appendix B provides the most up-to-date list of BLM special status species in each state. While this list is BLM's most up-to-date list of special status species, the list may change at any time according to changes in the listings by the FWS; more current data from recent investigations; and further verification of a species presence on public land.

Implementation of Changes in Grazing Use: The effects on special status species are expected to be similar to the potential adverse wildlife effects previously described. The 5-year phase-in period has the potential to adversely affect numerous at-risk species such as the sage-grouse, pygmy rabbit, mountain plover, and mountain quail if the livestock grazing stocking rate is affecting their decline. However, the need for changing livestock grazing stocking rates is relatively uncommon and changes in active grazing in excess of 10% are very infrequent. Much more common are changes in the time or duration of grazing use, the season of use or location of use - all of which may be implemented without a phase-in period.

There are several ways to avoid impacting special status species. If the BLM manager determines that natural resources require immediate protection because of conditions such as drought, fire, flood or insect infestation or that continued grazing use poses an imminent likelihood of significant damage to natural resources, then the BLM manager is required to close all or a portion of the allotment to livestock grazing or otherwise modify grazing use under 4110.3-3(b). Such decisions may be issued as final decisions effective upon issuance or on the date specified in the decision and are not subject to the phase-in requirement. Another method for avoiding impacts to special status species is for the BLM to work cooperatively with the the permittee or lessee to implement the action immediately without any phase-in period.

The proposed 5-year phase-in period would not apply to species presently listed under the ESA. Once a species is listed, land management processes become more cumbersome and land uses become more restricted.

Table 3.10.2.1 shows the FWS (Western Regions—Regions 1, 2, and 6) Birds of Conservation Concern (BCC) 2002. The BCC 2002 shows the nongame avian species that are likely to become candidates for listing under the ESA. There are 39, 87, and 45 avian species on the BCC 2002 in the Pacific Region, Southwest Region, and Mountain-Prairie Region, respectively.

Temporary Nonuse: This provision, which enables the BLM to approve nonuse for longer than 3 consecutive years, allows BLM more flexibility in allowing habitat to recover. This requirement should benefit special status species by allowing a longer timeframe for habitat to recover from rehabilitation or other impacts. However, the BLM still retains the ability to close areas to grazing if conditions warrant closure.

4.3.9 Wild Horses and Burros

The environmental impact analysis focuses on proposed regulations for livestock grazing as they would affect wild horse and burro populations and their herd management areas on the 34 million acres grazed by both domestic livestock and wild horses and burros in the western

United States.

Overall, the proposed action would slightly improve vegetative conditions over the long-term through better and more sustainable decisions, as a result of having more time to provide effective coordination. Wild horses and burros should benefit from any improvement in rangeland health. However, in the short term, the effect of the proposed action, which allows changes in active use in excess of 10% to be phased in over 5 years, could have minor adverse effects on some herd management areas (HMA). Those HMAs occupied by wild horses and burros where livestock grazing stocking rates need adjustments greater than 10% could experience short-term minor adverse effects. There are no other noteworthy effects from the proposed action to wild horses and burros.

4.3.10 Recreation

Overall, the proposed action would have minimal effects on the recreation program, with highest potential for any effect occurring on such recreational activities as hiking, sightseeing, and enjoying naturalness. The effects could be negative if the implementation of corrective actions to improve rangeland health are delayed. However, the use of monitoring data and having more time to make better decisions would improve the chances for better and more sustainable decisions that could improve rangeland health at a faster rate than under the existing situation.

Many recreational activities would be enhanced or diminished by the natural condition of the lands on which they are located. In areas where rangeland health standards are presently attained, the proposal would not affect recreation opportunities such as hunting, fishing, sightseeing, and enjoyment of naturalness.

As vegetation cover increases, many recreation uses including sightseeing, wildlife watching, and enjoyment of naturalness would be maintained or improved. The least effect on recreation opportunities would occur at highly developed recreation areas where grazing may be restricted and where recreationists tend to be less sensitive to evidence of grazing. Highly developed recreational activities such as OHV would not be affected by rangeland conditions. The greatest effect on recreation opportunities would be on dispersed activities that are more sensitive to rangeland conditions. Effects both positive and negative would be greatest in higher and moister areas where more grazing use occurs, and least in the driest areas that improve at slower rates. Both commercial and noncommercial activities would be similarly affected. Revenues from commercial recreation that rely on healthy ecosystems could remain static or decline somewhat in the short term, but would generally be unaffected by this proposal in the long term.

Under some circumstances, where rangeland health standards are not attained, improvement of conditions could either be delayed or accelerated under the proposed action. Delays may occur as a result of acquisition of additional monitoring data, additional time for the development of management actions, or a 5-year phase-in implementation period. The effect of these delays would vary according to site-specific circumstances and conditions. Accelerated improvement of resource conditions may occur as a result of better decisions from the use of monitoring data and an adequate timeframe for developing management actions that are sustainable. There are no substantial effects to recreation from the other key elements in the proposed action.

4.3.11 Special Areas

Overall assumptions for *all Alternatives*: Special Areas would base determinations and decisions resulting from the proposed actions with full application of the originating proclamations and laws and policies—whichever is appropriate—to determine

implementation suitability. Special Area mandates—including the preservation, protection, conservation, and enhancement of resources, as well as other values and uses—must take priority over subordinate purposes.

Implementation of the proposed action would have minimal effects on special areas in comparison with the existing situation. Special areas are normally in healthy rangeland conditon, so they would be expected to be meeting rangeland health standards. Further, they would not normally be in need of livestock reductions. This is because most special areas represent public land acreages that have not had major human effects, which justifies their being special areas. Therefore, the differences between the proposed action and the existing situation would not have measurable effects on these areas in the short term or long term.

4.3.12 Paleontological and Cultural Resources

The majority of the regulation changes, clarifications and additions as stated in the Proposed Action Alternative will have no effect on heritage resources, whether for on-the-ground actions or for the process and requirements of cultural resource management.

Implementation of Changes in Grazing Use: The 5-year phase-in provision could have both beneficial and adverse effects on heritage resources. In the case of decreasing use, heritage resources could be subject to continued effects before the decision is fully implemented; alternatively, in the case of increasing use, the delay could allow extra time to provide protection or data recovery of sites that may be affected by the change.

Basis for Rangeland Health Determinations: Changes to the provision of rangeland health determinations could indirectly affect heritage resources by increasing workload due to site or locality monitoring data requirements, which could delay implementation of grazing related actions.

Any new projects developed under the changed regulations would be analyzed for affects on heritage resources on a case-by-case basis; all applicable laws, executive orders, regulations, and manual requirements and procedures for the identification, protection, and utilization of, and consultation on, heritage resources will be followed.

4.3.13 Economic Conditions

Overall, the local and regional economic effects of the proposed action would be minor. The primary effects would be:

1. increased management flexibility for both permittees and the BLM,
2. increased administrative costs to the BLM,
3. reduced potential adverse economic effects to permittees by increasing the amount of time to make rangeland health determinations and implement grazing decisions,
4. increased service charges to permittees undertaking specific actions, and
5. increased cost recovery to BLM for certain permittee-initiated grazing actions.

The following provisions have the greatest likelihood of creating economic or administrative effects, though none of the provisions, either individually or cumulatively, is considered significant.

Social, Economic, and Cultural Considerations in the Decision-Making Process: The primary effect of this provision would be to increase BLM administrative costs, and perhaps time, to complete NEPA analysis of changes in permitted use. NEPA already requires federal

agencies to consider the effects on the human environment in all of its analyses, including social, economic, and cultural factors. BLM does consider social, economic, and cultural factors in its decision-making but, in some cases, those considerations may not be documented. Where offices are already documenting these considerations, there will likely be no additional workload. However, in some offices, more documentation will increase the workload.

An additional economic effect of this provision may be that, to the extent that social, economic, and cultural factors were not previously documented, decisions on changes in permitted use may change. This could either benefit or harm the permittee, depending on how the decision might change. Likewise, it could benefit or harm other general economic conditions.

Implementation of Changes in Grazing Use: Decreases or increases in active use exceeding 10% of the existing permit would be phased in over a five-year period unless the permittee agrees to a shorter period or there is need to comply with applicable law (e.g., the Endangered Species Act). A 5-year phase-in of decreases in active use would mitigate the potential economic effect on permittees by allowing ranchers additional time to make alternative arrangements or to simply continue livestock grazing activities at existing levels. However, it may also delay needed long-term improvements in rangeland conditions which may in turn delay the achievement of long-term sustainability of range conditions and the permittee's economic viability. Phasing in increases in use would also allow permittees to better plan future use to the extent that additional time may be needed to increase herd size or adjust seasons of use.

Range Improvement Ownership: Shared title of range improvements could potentially improve permittees' financial condition to the extent that title may increase the value of their operations or increase their ability to obtain financing. However, permittees presently do have shared financial interest in range improvements and are compensated for the contribution they made under a cooperative agreement in the event the permit changes ownership, so it is not clear what the net effect of this provision might be. From 1982 to 1995, ownership of range improvements was held jointly by the U.S. government and permittees. Since 1995, the Federal government has held sole title. In some States, there was a noticeable decrease in range improvements from 1995 to 1996, but following 1996 the trends are more erratic. Also, there was an overall declining trend in the numbers of range improvements since 1982 for all States combined. Thus, the data on numbers of range improvements before 1995 and after 1995 do not reveal whether permittees became permanently more reluctant to participate in range improvements, or what the effect may have been on the value of their operations.

Review of Biological Assessments and Evaluations: This provision would primarily create a cost savings to BLM in that BA's would not be considered appealable or protestable actions.

Temporary Nonuse: This provision would increase the number of years permittees could take nonuse. Presently, permittees may only take up to 3 consecutive years of nonuse and this provision would eliminate that three consecutive year limitation. This would be a beneficial economic effect to permittees. Also, it would increase flexibility for both permittees and BLM, since there are a variety of financial and resource condition reasons for taking nonuse beyond 3 years.

Basis for Rangeland Health Determinations: Rangeland health determinations would need to be based on standards assessments and monitoring prior to proposing possible changes in permitted use. This may delay some determinations and increase costs to BLM to address additional monitoring requirements. The effect on permittees would be that initiation of proposals for changes in permitted use would be delayed and thus any potential changes in their operations would be delayed. This may be a beneficial effect to permittees, depending

on whether resource conditions on their allotments can sustain delays in improvement.

Definition of Grazing Preference, Permitted Use, and Active Use: Deleting the term "permitted use" and changing the definition of "grazing preference" to include the total number of AUMs apportioned and attached to base property would have no economic effect. This change reflects essentially a return to the pre-1995 regulations. The 1995 regulations changed the definition of grazing preference to the superior or priority position against others for the purpose of receiving a grazing permit or lease. The priority is attached to base property owned or controlled by the permittee. In addition, the 1995 regulations added the term "permitted use" to mean the forage allocated by, or under the guidance of, an applicable land use plan; it is expressed in AUMs. There was no economic effect from changing the regulations in 1995 and, likewise, there would be no effect from returning to the earlier definitions.

Timeframe for Taking Action to Meet Rangeland Health Standards: The effects would be similar to those from the rangeland health determinations in that BLM would have a longer timeframe, as long as 24 months after determination, to analyze any proposed changes to address resource conditions. This delay could potentially benefit permittees in the same way as the rangeland health determination provision above, assuming that delays in proposed changes to permitted use do not cause continued deterioration in range conditions and thus the economic viability of the permittee's operation.

Definition and Role of the Interested Public: This provision could result in reductions in costs for the BLM, but these cost savings would be minor. There are still requirements for consultation, cooperation, and coordination with permittees or lessees and the State. And the interested public would still be afforded the opportunity for public involvement for various actions including those that affect long term grazing management direction at the allotment level. However, there would be agency actions taken that BLM would not be *required* to consult with the interested public. This provision could have an adverse effect on BLM management because it may be viewed as excluding the public from decisions where public input was previously required.

Changes in Grazing Use Within the Terms and Conditions of the Permit or Lease: This provision could increase management flexibility for both the BLM and permittees but would probably have little economic effect because overall forage utilization could not exceed the amount of active use specified in the permit. For example, if resource conditions indicated forage availability earlier than the authorized turn-out date on the permit, the BLM could authorize temporary changes in grazing use to allow an earlier turn-out date, as long as total use does not exceed the amount of active use authorized by the permit. Without this provision, the BLM would have to issue a temporary, nonrenewable (TNR) authorization to allow use that begins before or ends after the dates specified in the permit. A process that is more time-consuming and costly than simply basing authorization on the existing permit or lease. This provision could not only increase management flexibility, but could lower BLM's costs. It could also result in more efficient utilization of forage because it allows permittees and the BLM to respond to annual fluctuations in timing and amount of forage production. However, in some BLM States, range staff already do authorize temporary changes in use with no problems because the terms and conditions of the permit are flexibly written.

Service Charges: Increasing service charges for certain actions is essentially a cost-recovery measure for the U.S. Treasury. The primary effect of increasing service charges for certain actions would be to transfer some costs from the public (i.e., BLM) to permittees. The present fee is $10; under the proposed action, fees would increase to:

1. Issuance of crossing permit ($75)
2. Transfer of grazing preference ($145)

3. Cancellation and replacement of grazing fee billing ($50)

Table 4.3.13.1 shows the net cost recovery for each of these three permittee-initiated actions.

4.3.14 Social Conditions

Basis for Rangeland Health Determinations: Proposed action would have minor positive direct social effects on permittees stemming from the required combination of assessment and monitoring for range health determinations. Permittees believe that their relation to the decision process is strengthened when valid monitoring data are available for use. Environmental, conservation, and recreation groups will experience minor positive social effects for similar reasons. Monitoring data are seen by all groups as strengthening the basis for decisions and, therefore, enhancing the resource. Over the long term, the proposed action would have a cumulative positive effect because long-term data would be available to all groups to more accurately assess the condition of the resource and to provide a foundation for range improvements and projects (Table 4.3.14.1).

Changes in Grazing Use Within the Terms and Conditions of the Permit or Lease: Permittees will experience minimal social effects due to the specification of reasons for changes to grazing use. Effects on other groups are also minimal.

Cooperation with State, Local, and County Grazing Boards: Permittees will experience social effects from this proposed action. The specific requirement to coordinate with grazing boards should stimulate the development of additional grazing boards throughout the west. Thus, BLM will increase coordination with ranchers as individual permittees and lessees at the allotment level and additionally as a group at the county level. Because they have other avenues for monitoring and challenging decisions, social effects on environmental, conservation, and recreation groups will be minimal.

Definition and Role of Interested Public: Any social effects from this proposed action are related to the list of actions for which consultation, cooperation and coordination are required. Public involvement does not change for those actions related to planning but is reduced regarding operational decisions. The manner in which a public gains standing is clarified. In sum, these changes should have minimal social effects on all groups.

Grazing Preference: The proposed action will have minimal positive social effects on permittees because it reinforces their belief that permits should be used for livestock grazing. The definition of preference and active use are consistent with their belief that maintaining ranching as the primary use of allotments enhances the stability of their communities and social networks. This change will have minimal effect on the other groups in question.

Implementation of Changes in Use: The proposed action would have positive direct social effects on permittees. The 5-year timeframe provides flexibility and reduces the immediacy of social and economic stress on ranchers and their families in the event of a cut in active use. Environmental and conservation groups generally oppose this idea, instead preferring immediate implementation to prevent further resource degradation. However, these groups could see no direct social effects stemming from this change. It will also have minimal effect on recreation groups.

Range Improvement Ownership: The proposed action would have minimal social effects on permittees because it basically restores the rule to its pre-1995 form. They are familiar with this approach though most expect only a marginal increase in improvements because of being offered title. Social effects on recreational users will be minimal. Effects on conservation and environmental groups are also minimal, being confined mostly to the feeling that permittees holding title to anything on public land is unwarranted. Minimal effects on any group are expected from this proposed action concerning nonstructural improvements.

Review of Biological Assessments and Evaluations: The proposed action clarifies the opportunities afforded to all groups to comment and give input into biological assessments specifically. These opportunities existed generally under the no action alternative and the proposed action simply specifies that these apply to biological assessments. Thus, no social effects on any group are expected.

Satisfactory Performance: This proposed change could have minimal social effects on permittees and conservation and environmental groups by setting out what satisfactory performance actually is, as opposed to what it is not. For the purposes of their involvement in the management of allotments, this provides benchmarks and implies data needs, but is unlikely to require a demonstrable change in how either group interacts with the BLM.

Social, Economic, and Cultural Considerations: Social effects of the proposed action will be minimal for all groups. Any social effects would be related directly to how the information is used or how such considerations are weighed in making decisions. The generation and documentation of information will not itself produce social effects.

Temporary Nonuse: This action will have direct social effects on most permittees. Permittees and lessees feel that a limit on the number of years for which nonuse can be taken is important for maintaining the economic and social viability of their communities. This provision allows permittees and lessees not interested in grazing to apply each year to keep livestock off of the allotments. Permittees see this as being the practical equivalent of a conservation use of these allotments that may produce a cumulative effect over time that reduces their relative social networks within the community and, to them, threatens community stability. These negative effects could be substantially reduced if forage available during nonuse is apportioned. This would meet objections concerning maintenance of the local livestock herd to maintain economic stability. Minimal effects are expected on recreation groups. Minimal positive social effects are expected on conservation and environmental groups. These stem mostly from their belief that the open-ended nature of the proposed action allows for nonuse to continue as long as necessary to recover good resource conditions. This allows them greater opportunity to work with ranch owners to change management practices on allotments within timeframes they think are more ecologically effective. This would allow them to reallocate organizational resources accordingly. The proposed reasons for approving temporary nonuse will have no social effects on permittees, recreation groups or conservation and environmental groups.

Timeframe for Meeting Rangeland Health Standards: Minor positive direct effects will accrue to permittees from this proposed action. They view this proposal as decompressing the decision process surrounding rangeland health standards thereby allowing for better decisions and allowing permittees to plan for potential changes in ranch management. No effects are expected for recreation groups. Social effects for conservation and environmental groups will be minor and negative. Under this proposed action, these groups could encourage and achieve an agency determination about rangeland health but action could be precluded for a 24-month period pending consultations or other action. Direct effects are primarily a perceived degradation in their public access to the BLM decision process, and psychological effects within the organization in that this proposed action engenders a feeling that the decision process is designed to preclude their involvement to a great degree while their concerns about degradation of the resource are minimized.

Water Rights: Permittees will experience positive direct and cumulative social effects stemming from the proposed action reinforcing their belief that water belongs in private hands. They see the management of water resources for livestock as stabilizing their communities. The proposed action could also increase their certainty of stock water resources in the future. This amounts to a potential increase in their rights to stock water over time. Conservation and environmental groups see this proposed action as returning water

rights to those who do not use them to support the ecosystem and therefore local communities. These groups believe that the public holds certain rights to water on public land. The proposed action is seen as precluding uses of water on behalf of the public that are not essentially stock water. They view this as a reduction in their rights to this resource and expect direct and cumulative negative social effects over time. Recreation groups will see few social effects from this proposed action.

4.3.15 Environmental Justice

The regulatory changes proposed here must be considered for their potential effect on low-income, minority, and tribal populations. Executive Order 12898 requires that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

Although there is no standard method for assessing such effects, any environmental justice review should, to the extent feasible, involve the following steps:

1. Determine the boundaries of the potentially affected area.
2. Identify low-income, minority, and tribal populations within the area to be subjected to the proposed action.
3. Identify potentially significant, adverse health and environmental effects that may affect one or more of these populations.
4. Consider "the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action" (CEQ 1997:9).
5. Determine whether such an adverse effect "appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group." (CEQ 1997:27).
6. Determine whether adversely affected low-income, minority, or tribal populations have been subjected to "cumulative or multiple adverse exposures from environmental hazards" (CEQ 1997:27), which should include the results of actions by other parties (BLM 2002).

An environmental justice analysis is most feasible in project-level undertakings, where there is a limited affected area and specific environmental effects to be evaluated. It is more difficult in the large-scale review involved in resource management plans, and particularly problematic in regulatory changes having nationwide application, as in the proposed changes to the BLM's grazing regulations.

Approximately 160 million acres of BLM-administered land in the West are suitable for grazing. At this geographic scale, it is not feasible to identify specific, potentially affected low-income, minority, or tribal populations and examine their reliance on public lands grazing. Rather, an analysis should determine if there is a systematic differential effect inherent in the proposed actions, and if so, whether this effect falls disproportionately on one of these populations.

For example, a change in range health standards that resulted in a broadly applied reduction in permitted AUMs would disproportionately reduce the financial viability of ranching operations having a high dependence on public grazing allotments. If there were a reasonably consistent association between high dependence on public grazing and herds owned by

minority, or tribal ranchers, there might be a conflict with environmental justice principles. (The association between smaller ranches and lower incomes is obvious, and by its nature unlikely to be judged discriminatory.)

The regulations considered here do not involve this type of on-the-ground change in grazing operations. Instead, they concern such matters as the phase-in period for changes in conditions of active use; ownership of rangeland improvements; and the opportunities for public comment in grazing administration decisions.

The economic impact analysis found most of the proposed changes to be either neutral or positive for ranchers with BLM grazing allotments, although for a few measures it was not possible to predict whether the effect would result in a net cost or net benefit.

The social impact analysis found the proposed measures neutral or positive, with the possible exceptions of regulations concerning prohibited acts, temporary nonuse, and water rights. Conservation and environmental groups may experience some negative effects from proposals regarding prohibited acts and water rights, in that these measures are inconsistent with their understanding of conditions fostering the health of streams and rangelands. Permittees may experience some negative effects from the proposed modification of the length of temporary nonuse. None of these predicted effects, however, would seem to fall disproportionately on low-income, minority, or tribal populations.

In summary, the changes proposed to BLM's grazing regulations do not violate environmental justice principles as established by Executive Order 12898 and CEQ and Bureau guidance.

4.4 ALTERNATIVE THREE: MODIFIED ACTION

The direct and indirect effects of implementing the regulatory changes known as Alternative Three—Modified Action, as described in Chapter 2.3, are presented in this section.

4.4.1 Grazing Administration

The Modified Action Alternative effects are similar to the proposed action in that it emphasizes a stewardship through partnership approach to grazing management. It also includes enhancement of administrative efficiency and effectiveness, including addressing legal issues that need clarification. However, it allows the authorized officer to make changes in active use, if greater than 10% over a 5-year period, discretionary; does not prescribe that both assessments **and** monitoring be used as a basis for determinations that identify grazing as a significant factor in failing to achieve rangeland health standards; and makes it a prohibited act to not comply with certified weed seed-free forage, grain, straw, or mulch requirements specified by the Authorized Officer.

Social, Economic, and Cultural Considerations in the Decision-Making Process: The consequences would be the same as the Proposed Action Alternative.

Implementation of Changes in Grazing Use: The effects of this provision would be similar to the proposed action except that the phase-in of changes to active use greater than 10% may not have to be implemented over a 5-year period. The authorized officer may, at his discretion, determine that a shorter or no phase-in period would be warranted. This could provide additional protection to Bureau-listed sensitive species, or other sensitive resource values that may benefit from a shorter phase-in period.

Range Improvement Ownership: The consequences would be the same as the Proposed Action Alternative

Cooperation with State, Local, and County Established Grazing Boards: The consequences would be the same as the Proposed Action Alternative

Review of Biological Assessments and Evaluations: The consequences would be the same as the Proposed Action Alternative

Temporary Nonuse: Grazing permittees and lessees would only be able to be approved for up to five consecutive years of nonuse for conservation and protection of rangeland resources, or for the personal and business needs which would allow them to better manage their business, such as livestock sales that result in temporary herd size. After the five-year period has elapsed, the permittee must make full use of the grazing permit or lease. If BLM determines that additional nonuse would benefit achieving resource objectives then the authorize officer could issue a grazing decision or enter into an agreement with the permittee or lessee to suspend the permitted use in whole or part. However, this presents a possible deterrence from a permittee's or lessee's standpoint for declaring nonuse situations, and detracts from cooperative management. In addition, the grazing decision or agreement process would create additional workload upon the grazing administration and a delayed timeframe to address needed changes to grazing management.

Timeframe for Taking Action to Meet Rangeland Health Standards: The consequences would be the same as the Proposed Action Alternative.

Basis for Rangeland Health Determinations: Allowing the authorized officer discretionary use of monitoring data as a basis for determinations of rangeland health would allow BLM at the local level flexibility to prioritize data and information collection. With limited resources BLM would be able to more efficiently and effectively conduct an overall monitoring and assessment program that places an emphasis on allotments that have high resource values, contain resource conflicts, or are not achieving rangeland health standards. The BLM administers numerous grazing allotments that may have a permit or lease for less than 100 AUMs, are less than 640 acres, and have no known resource conflicts. BLM could focus its energy on using monitoring and assessments to make grazing management changes where they are needed to protect high resource values or show that those values are protected under current management.

Conservation Use: The consequences would be the same as the Proposed Action Alternative.

Definitions of Preference, Permitted Use and Active Use: The consequences would be the same as the Proposed Action Alternative.

Definition and Role of the Interested Public: The consequences would be the same as the Proposed Action Alternative.

Water Rights: The consequences would be the same as the Proposed Action Alternative.

Satisfactory Performance of Permittee or Lessee: The consequences would be the same as the Proposed Action Alternative.

Changes in Grazing Use Within the Terms and Conditions of the Permit: The consequences would be the same as the Proposed Action Alternative.

Service Charges: The consequences would be the same as the Proposed Action Alternative.

Prohibited Acts: This provision is the same as the Proposed Action Alternative except for adding a provision that requires the use of weed seed-free forage, grain, straw, or mulch when required by the authorized officer. This would enable the BLM to enforce weed free requirements. This prevention measure would reduce the establishment and spread of noxious weeds on BLM administered lands.

Grazing Use Pending Resolution of Appeals When Decision Has Been Stayed: The consequences would be the same as the Proposed Action Alternative.

Treatment of Biological Assessments and Evaluationsin the Grazing Decision-Making Process: The consequences would be the same as the Proposed Action Alternative.

4.4.2 Vegetation

The effects of implementing Alternative 3 on vegetative communities on public lands are expected to be very similar to the Proposed Action, Alternative Two, over the long term. Differences between Alternative Three and Alternative Two are analyzed below.

Implementation of Changes in Grazing Use: The alternative of using a 5-year phase-in process for permitted use reductions over 10 percent would be used most of the time where agreement with the livestock operator for a shorter timeframe is not achieved. In the few cases where a more rapid adjustment is needed, a more rapid adjustment could be implemented by the BLM. Thus, this alternative would be similar to Alternative Two.

Temporary Nonuse: The limitation of five consecutive years of nonuse would adversely affect the public land vegetation when an extended drought limits normal forage production longer than five years.

Basis for Rangeland Health Determinations: The use of standards assessments rather than both assessments and monitoring as a basis for rangeland health determinations will provide for quicker determinations especially on low priority lands. This will allow for more staff time to be put in high priority areas where there are vegetation condition concerns.

Prohibited Acts: Inserting "Failing to comply with the use of certified weed seed free forage, grain, straw or mulch when required by the authorized officer" would result in a slower expansion of exotic invasive species on public lands.

4.4.2.1 Riparian and Wetland Vegetation

Under Alternative Three, impacts to riparian and wetland areas would be the same as under Alternative Two, except for the actions discussed below.

Implementation of changes in Grazing Use: Allowing the flexibility to use a phased approach or not, when changes in grazing use are greater than 10%, would benefit riparian vegetation to the extent it promotes decisions that match needs at local riparian sites. For large increases in the amount of grazing use (greater than 10%), potential exists for short term adverse impacts to riparian vegetation during full increase implementation. The areas where large increases have been considered involve pastures with upland treatments such as seedings conducted years ago. BLM emphasis on riparian reseouce recovery and function is also likely to affect the implementation decision. Regardless of the timing of the use and the characteristics of the site, riparian resources would benefit when allocations are made in stages because the risk of unanticipated, short-term impacts to riparian vegetation is reduced by the opportunity to evaluate change in increments.

For large decreases in authorized grazing use, the rate of change in grazing pressure would be decreased because only part of the decrease would be in effect starting with the first year. To the extent use levels, rather than timing or duration, rates of riparian recovery may be affected until the full reduction is accomplished. However, the rate and potential for riparain recovery on many streams is much more strongly correlated to timing of use.

In most cases, a carefully implemented and progressive management strategy that produces the intended results creates public support and understanding. Under the modified approach, changes that produce positive riparian condition responses would be implemented more slowly in some cases with phase-in, and more quickly in others (without phase-in). But the increased likelihood of grazing operator agreement and the mitigation benefits provided

by phase-in, would generally improve implementation effectiveness and delivery of the riparian improvement results.

Temporary Nonuse: Extending the consecutive year limit for temporary nonuse to five years would positively benefit riparian and aquatic resources by maintaining the flexibility of managers and operators to implement nonuse. The extension provides two years of additional access to a cooperative option to promote additional rest.

Basis for Rangeland Health Determinations: Using either standards assessment or monitoring as a basis for determining that existing grazing management practices or levels of grazing use are significant factors in failing to achieve standards and conform with guidelines would have minimal effect on riparian and wetland vegetation. If either assessments or monitoring show that grazing management practices or levels of grazing use are significant factors in failing to achieve standards or conform with guidelines, then the authorized officer can pursue a change in livestock management. However, the flexibility to direct funding for monitoring would focus monitoring effort based on highest priority needs or issues.

Prohibited Acts: Elimination of several acts prohibited by current and proposed regulations would have both short and long term negative effects for riparian and wetland vegetation in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterent.

Adding a provision on weeds: Adding a provision making the use of non-certified weed seed free forage, grain, straw, or mulch where certified is required a prohibited act will have a positive effect on riparian and wetland vegetation. Reducing the likelihood that weeds will be introduced into riparian areas will benefit native riparian species by minimizing competition from introduced weeds. Invasive exotics such reduce riparian area stability, consume scarce water, alter wildlife habitat and compete with beneficial native plant species.

4.4.3 Fire and Fuels

Alternative three is the same as the analysis for the proposed action in Section 4.3.3.

4.4.4 Soils

4.4.4.1 Upland Soils

The impacts of Alternative Three would be neutral to slightly beneficial for upland soils due to maintenance or slight improvement of watershed cover.

Implementation of Changes in Grazing Use: The discretionary five year phase-in of changes in grazing use could result in more rapid improvement of vegetation, soil cover and watershed condition than the proposed action alternative.

Temporary Nonuse: The five-year limit on non-use for grazing would reduce the positive impacts of that rule change compared to the proposed action alternative. Allotments needing more than five years for natural recovery of watershed cover may not achieve objectives for protection of the upland soil resource.

Basis for Rangeland Health Determination: The option of using either rangeland health assessments and/or monitoring as basis for determination of failure to achieve rangeland health standards would be beneficial to upland soil resources since there would be less potential delay in making that determination. An accelerated implementation of management changes would result in more rapid improvement in resource conditions.

Timeframe for Taking Action to Meet Rangeland Health Standards: The impact would be the same as the proposed action alternative.

Prohibited Acts: The addition of the provision on weed seed free forage, grain, straw or mulch could have a beneficial impact if it reduces the spread of noxious weeds on public lands. Noxious weeds can provide less effective watershed cover than native vegetation. Noxious weeds can also alter soil biological communicities, thus decreasing restoration success for native species requiring mycorrhizal fungi and other biological components of the natural soils. Elimination of several acts prohibited by current and proposed regulations would have both short and long term negative effects in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterent.

4.4.4.2 Riparian Soils

The impacts of Alternative Three would be neutral to slightly beneficial for riparian soils due to maintenance or slight improvement of watershed cover.

Implementation of Changes in GrazingUse: The impacts would be the same as the proposed action alternative.

Temporary Nonuse: The five-year limit on non-use for grazing would reduce the positive impacts of that rule change compared to the proposed action alternative. Riparian areas needing more than five years for natural recovery of desirable riparian vegetation may not attain adequate protection of riparian soil resources.

Basis for Rangland Health Determinations: The option of using either rangeland health assessments and/or monitoring as basis for determinations of failure to achieve rangeland health standards would be beneficial to riparian soil resources since there would be less potential dely in making that determination. An accelerated implementation of management changes would result in more rapid improvement in resource condition.

Timeframe for Taking Action to Meet Rangeland Health Standards: The impacts would be the same as the proposed action alternative.

Prohibited Acts: The addition of the provision on weed seed free forage, grain, straw, or mulch could have a beneficial impact if it reduces the spread of noxious weeds in riparian areas. Noxious weeds can provide less effective riparian soil protection than native vegetation. Noxious weeds can also alter soil biological communities, thus decreasing restoration success for native species requiring mycorrhizal fungi and other biological components of the natural soil. Elimination of several acts prohibited by current and proposed regulations would have both short and long term negative effects in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterent.

4.4.5 Water Resources

The impacts of Alternative Three would be similar to the impacts of the proposed alternative except as noted below.

Implementation of Changes in Grazing Use: Rapid implementation of changes in management may accelerate short-term water resource improvement over the proposed alternative but would not affect long-term watershed recovery rates.

Prohibited Acts: The addition of the provision on weed seed free forage, grain, straw, or mulch could have a beneficial impact if it reduces the spread of noxious weeds. Noxious weeds can provide less effective watershed protection than native vegetation. Elimination of several acts prohibited by current and proposed regulations would have both short and long

term negative effects in a limited number of locations, to the extent other primary enforcement authorities are an ineffective deterent.

4.4.6 Air Quality

Impacts from the implementation of Alternative Three would be similar to those described for the proposed action. The minor regulation differences do not create a measurable or describeable difference in effects.

4.4.7 Wildlife

The effects on wildlife species in Alternative Three are similar to those identified for Alternative Two except as described below.

Implementation of Changes in Grazing Use: Making the 5-year phase-in period for any change in active use in excess of 10% discretionary rather than mandatory may result in the BLM being able to make changes on the ground more rapidly to benefit wildlife.

Basis for Rangeland Health Determinations: The ability of BLM to base rangeland health determinations on a rangeland health assessment or monitoring data would be beneficial to wildlife. This change from Alternative Two would enhance BLM's ability to take corrective action at the earliest date within existing funding and staffing capability.

Temporary Nonuse: The proposal to limit BLM's ability to approve applications for nonuse to no more than five consecutive years may negatively impact wildlife. It may take more than 5 consecutive years to improve wildlife habitat to the desired state. However, mechanisms are in place to close areas to livestock grazing for longer than five years if conditions warrant.

Prohibited Acts: The addition of the provision on weed seed free forage, grain, straw, or mulch would have a beneficial effect on wildlife if it reduces the spread of noxious weeds. Removing the capability of BLM to address violations of federal or state laws (regulations pertaining to the placement of poisonous bait or hazardous devices designed for the destruction of wildlife; application or storage of pesticides, herbicides, or other hazardous materials; alteration or destruction of natural stream courses without authorization, or aiding and abetting in the illegal take, destruction or harassment of fish and wildlife resources; and illegal removal or destruction of archaeological or cultural resources) that have been prosecuted removes a mechanism for protecting wildlife and special status species. Such acts would still be prosecuted by the appropriate Federal or State agency, however after conviction, the permittee or lessee could not be additionally penalized by having the grazing permit or lease denied, suspended, or cancelled.

4.4.8 Special Status Species

The effects on special status species in Alternative Three are similar to those identified for Alternative Two except for the elements described below. The effects on special status species are also similar to the effects of Alternative Three on wildlife species described in the previous section.

Implementation of Changes in Grazing Use: Making the 5-year phase-in period for any change in active use in excess of 10% discretionary rather than mandatory would provide more flexibility in protecting nonlisted species and result in the BLM being able to make changes on the ground more rapidly to benefit special status species. Special status species would not be at risk from the potentially harmful delays in implementation of necessary conservation measures discussed under Alternative Two.

Temporary Nonuse: The proposal to limit BLM's ability to approve applications for nonuse

to no more than 5 consecutive years may negatively affect special status species. It may take more than 5 consecutive years to improve special status species habitat to the desired state. However, if needed, the area could still be closed to livestock grazing for longer than 5 years if conditions warrant.

Basis for Rangeland Health Determinations: The ability of BLM to base rangeland health determinations on a rangeland health assessment with or without monitoring data would positively affect special status species. This flexibility would enhance BLM's ability to take corrective action at the earliest date within existing funding and staffing capability.

Prohibited Acts: The addition of the provision on weed seed free forage, grain, straw or mulch should have beneficial effects on special status species if it reduces the spread of noxious weeds. The concern for special status species on the proposal to eliminate some prohibited acts is the same as the concern for wildlife. There is no way to ascertain how having the capability to remove a rancher from the land has deterred illegal activities that can adversely affect special status species activities such as poisoning prairie dogs and ground squirrels; killing gray and Mexican wolves, grizzly bear, jaguars, and mountain lions; and others.

4.4.9 Wild Horses and Burros

The effects on wild horses and burros in Alternative Three are identical to those discussed in Alternative Two, with the following exceptions:

Implementation of Changes in Grazing Use: Changes in active use in excess of 10% in less than the 5-year phase in period would be a benefit to the rangeland and the wild horses and burros that use it.

Prohibited Acts: The present regulations allow livestock operators to be cited for certain prohibited acts. Elimination of these prohibited acts would eliminate another deterent if actions would be taken against a permit or lease. However, there are other regulatory mechanisms in place for enforcement of these acts and the occurrences of permittees or lesses conducting these prohibited acts are rare.

4.4.10 Recreation

Overall, the affects on recreation from implementation of Alternative Three would be similar to the analysis for the Alternative Two. Slight differences are explained below, but are not considered noteworthy.

Prohibited Acts: Certain prohibited acts would be removed from the existing range regulations. Although the prohibited acts proposed for removal are activities that could diminish recreational opportunities, their removal would not be expected to affect recreation since those acts would continue to be prohibited in other regulations and laws.

This alternative would make the use of certified weed-free feed a requirement where established by the authorized officer. The recreational setting and opportunities for enjoyment of naturalness, wildlife observation, hunting, fishing, and access to recreational opportunities could be adversely affected by the introduction or spread of invasive species. This alternative would help protect the recreational setting by providing additional regulatory assistance in reducing the potential for noxious weed introduction. This alternative would be most evident on recreation permits and uses in special recreation areas, which are the most highly regulated and monitored.

4.4.11 Special Areas

Overall assumptions for *all Alternatives*: The BLM would base determinations and decisions resulting from proposed action with full application of the originating proclamations, laws, and policies—whichever is appropriate—to determine implementation suitability. Special area mandates including the preservation, protection, conservation, and enhancement of resources and other values and uses must take priority over subordinate purposes.

Effects from the implementation of Alternative Three would be the same as those described for the proposed action. However, there are some slight differences in effects, as stated below.

Prohibited Acts: The provision includes failing to comply with the use of certified weed seed-free forage, grain, straw, or mulch, when required by the authorized officer. The regulation would provide a deterrent to the general public, including permittees or lessees, for introducing or spreading noxious weeds on public lands. BLM law enforcement rangers would have the authority to cite for the violation. Also, Alternative Three would remove provisions regarding prohibited acts related to violations of Federal or State laws pertaining to poisonous bait or hazardous devices, storage of hazardous materials, altering stream courses, water pollution, illegal take, destruction or harassment of fish or wildlife, and destruction or removal of cultural resources. Removing the above provisions would represent a potential loss of a deterrent for potential violators by eliminating punitive actions against grazing permits or leases.

4.4.12 Paleontological and Cultural Resources

Issues to be considered under Alternative Three, Modification of the Proposed Action, are the same as the proposed action except for slight modifications to four of the elements (Temporary nonuse provision, 5-year phase-in provision, rangeland health determination requirements, and prohibited acts). All of the previous changes or provisions that could have no effect on heritage resources would also have no affect under Alternative Three, including the slight modification in the temporary nonuse provision. Additionally, the provisions in Alternative Two that could affect heritage resources would also have an effect under Alternative Three.

Implementation of Changes in Grazing Use: Having the 5-year phase-in provision be discretionary rather than mandatory may allow added flexibility to the relation between permittee or lessee and the BLM at the local level. Also, this provision could have both beneficial and adverse effects on heritage resources. With decreasing use, heritage resources could be subject to continued effects before the decision is fully implemented; alternatively, with increasing use, the delay could allow extra time to provide protection or data recovery of sites that may be affected by the change.

Basis for Rangeland Health Determinations: Changes to the provision of Rangeland Health Determinations may indirectly affect heritage resources by increasing workload because of site or locality monitoring data requirements.

Prohibited Acts: Changes may have a slight adverse effect on heritage resources. Elimination of the "illegal removal or destruction of archaeological or cultural resources" clause could hinder BLM's ability to take action against the permittee or lessee in the form of withholding issuance, cancellation, or suspension of their permit or lease. However, it does not preclude BLM from taking action against the permittee or lessee for violation of federal law. Overall, this would have a minor affect on BLM's ability to protect and manage cultural resources as required by the National Historic Preservation Act and the Archaeological Resources Protection Act.

4.4.13 Economic Conditions

The economic effects of Alternative Three would more closely resemble those under Alternative Two, Proposed Action, with the exception of three following provisions:

Implementation of Changes in Grazing Use: Under Alternative Three, a 5-year phase-in of changes in use exceeding 10% would be discretionary rather than mandatory. When the 5-year phase-in is used, the effects would be the same as under the Proposed Action. A phase-in period of less than 5 years may require permittees to make management adjustments more quickly than might be preferred by them. However, a shorter phase-in would accelerate improvements in range conditions which, in turn, may have a long-term beneficial effect on permittees' operations.

Temporary Nonuse: Under Alternative Three, temporary nonuse could be annually approved for as long as 5 years. The economic effect of this would be somewhere between Present Management (where 3 consecutive years on nonuse may be approved) and the Proposed Action (where there are no limits on the number of consecutive years of approved nonuse). This provision offers an additional 2 consecutive years of nonuse, which would be a beneficial economic effect on permittees and would increase flexibility for both permittees and the BLM.

Basis for Rangeland Health Determinations: Under Alternative Three, the BLM would have discretion to use assessments or monitoring as a basis for rangeland health determinations. This differs from the Proposed Action, which requires that both assessments and monitoring be used. The provision would give BLM greater flexibility than under the Proposed Action. All States now have some procedures for standards assessments and these may or may not also be accompanied by monitoring data when making determinations. Overall, greater flexibility to concentrate limited resources on priority allotments would effect the administrative costs or workloads on BLM. The economic effect on permittees would primarily be that determinations might not be delayed and thus, proposed changes in use might occur earlier than under the Proposed Action.

4.4.14 Social Conditions

Basis for Rangeland Health Determinations: The proposed action could have minimal social effects on permittees and conservation and environmental groups by allowing the agency to choose to use either assessment or monitoring as a basis for determining range health. Both groups stated that they prefer monitoring to be the basis for important and controversial determinations of rangeland health. Choosing to use an assessment instead could force both groups to use their resources to conduct their own monitoring and to challenge the assessment-based decisions on those grounds. No effects are expected on recreation groups (Table 4.4.14.1).

Temporary Nonuse: Minimal social effects are expected from this proposed action.

Prohibited Acts: These deletions could have negative social effects on conservation and environmental groups who see this as a reduction in prohibited acts that will allow further degradation of grazing allotments. They see direct effects in the threat that some of these actions present to the quality of their local environment. Recreation groups could experience similar effects if previously prohibited acts reduce the quality of their recreation experience. Both groups see these changes as potentially requiring that they acquire and expend additional resources over time to monitor and challenge the deleted activities on grazing allotments and as reducing their formal avenues for applying pressure on range managers to stop such activities. Permittees will experience minimal social effects.

4.4.15 Environmental Justice

The environmental justice implications of the modified action alternative are substantially identical to that identified for the proposed action alternative.

4.5 CUMULATIVE AND OTHER EFFECTS

The Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA) for 40 CFR Parts 1500-1508 identify requirements for the Federal agencies to address the cumulative impacts of proposed actions. Cumulative effects are defined as the effects on the environment resulting from the incremental effects of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

The scope of this proposed action and alternatives is very broad. The analysis of effects is therefore programmatic. Other broad-based initiatives and actions that are likely to contribute to cumulative effects are discussed below. In addition to the various programmatic actions, there will likely be regionally and locally based actions that will contribute to the cumulative effects.

As indicated in Chapter 1, the BLM has initiated an effort to develop grazing policies that would promote sustainable rangeland and sustainable ranching. The purpose of this effort, known as the Sustaining Working Landscapes policy initiative, would be to improve the long-term health and productivity of the public lands through innovative partnerships with permittees and lessees within the current regulatory framework. Twenty-four public workshops were held on the policy initiative in spring 2003. In summer and fall 2003, policy options were considered by 21 BLM Resource Advisory Councils throughout the West, and recommendations were submitted to the Director. All of this information is presently being reviewed. It was decided, however, that further action on the Sustaining Working Landscapes policy initiative would be deferred until comments had been received on the Proposed Rulemaking to amend the grazing regulations. It is reasonably foreseeable that policies would be developed and implemented over the next year to promote sustainable ranching and rangelands. However, it is not known at this time what the specifics of those policy proposals would be. It is likely that any policies that may be developed would focus on encouraging partnerships with permittees and lessees and others who may be interested in improving the health and productivity of the rangelands as well as promoting mechanisms to facilitate more efficient ranching operations. The policy emphasis, therefore, will generally complement the objectives of the proposed regulatory amendments.

The Healthy Forests and Rangeland Initiative and the National Fire Plan have also been identified as programmatic level policies that will affect rangelands. Both of these initiatives involve collaborative efforts with all stakeholders to reduce excessive fuels to reduce the potential for devastating wildland fires and to promote healthy forests and rangelands. These efforts focus primarily on forested lands rather than rangelands; however, it is reasonable to assume that over time there would be greater emphasis on rangelands, and rangelands would experience increasing positive benefit from these efforts. The Stewardship Contracting program, which is part of the Healthy Forests and Rangelands Initiative, received several project proposals in woodland areas that focused on reducing fire risk and enhancing rangeland health. In the fire program, there are several projects under way to train and equip ranchers to be qualified to assist in fire suppression and fuels treatment projects. Again, these efforts complement the general objectives of the regulatory amendments, particularly in promoting partnership and cooperation with permittees and lessees in achieving mutually beneficial objectives.

Another initiative under way is the development of a programmatic Vegetation Treatment EIS. The goals of the Vegetation Treatment program are to manage vegetation to sustain the condition of healthy lands and, where land conditions have degraded,to restore vegetation to

more healthy conditions. The vegetation treatment program, which covers a variety of vegetation treatment options and best management practices. will also complement the objectives of this Proposed Rulemaking.

A third critical initiative is the BLM Sage-Grouse Habitat Conservation Strategy. The primary goal of this Strategy is to help address the precipitous population decline of the sage-grouse, a species under consideration for Federal listing under the ESA, through a comprehensive habitat conservation strategy. Today, the BLM manages more than 50% of the remaining sage-grouse habitat. The strategy is a sage-grouse rangewide effort that involves a diverse group of cooperators including multiple Federal, State, and Tribal agencies, as well as special interest groups and private landowners. Appropriate and timely conservation measures for sage-grouse are critical for preventing further population declines and ESA listing of the species. Conserving and improving habitat for native species such as sage-grouse are part of the objectives of improving rangeland health through better use of the Four C's. Therefore, the Sage Grouse Habitat Conservation Strategy is expected to complement the objectives of this Proposed Rulemaking.

Policies and procedures for promoting the Secretary's Four C's—consultation, cooperation, and communication all in the service of conservation—are also being developed. One of the purposes of this rulemaking is to improve working relations with our permittees and lessees, an important component in support of the Four C's philosophy.

In summary, the other related programs being initiated or contemplated at this time will cumulatively enhance and increase the positive outcomes and effects anticipated from this proposed rulemaking.

There are no irreversible or irretrievable commitments of resources directly resulting from the proposed regulation changes nor are there any projected discernable effects from short-term uses on long-term productivity of resources arising from this proposed rulemaking.

Some adverse effects may not be avoided because of increases in timeframes associated with several components of this proposed rulemaking, including the requirement for a 5-year phase-in of changes in use of over 10%, the requirement for monitoring before making a determination on rangeland health, and the extension of time allowed before a decision must be made after a determination that livestock grazing is the causal factor for failure to meet or make progress toward meeting rangeland health standards and conforming to guidelines for grazing administration. However, better and more sustainable decisions would be developed by using monitoring data and taking the time to complete proper consultation, cooperation, and coordination with permittees or lessees and interested public, which may result in positive effects on rangeland health.

Mitigation measures are addressed in the development of Alternative Three. Additional mitigation measures would be appropriately developed when site-specific NEPA documents are prepared to implement the regulatory provisions.