

**Environmental Assessment
Grazing Lease #3600669
Marlin Allotment
EA#OR135-03-006**

**Bureau of Land Management
Spokane District
Border Resource Area**

**Marlin Grazing Lease# 3600669
Allotment Management Plan &
Environmental Assessment # OR135-03-EA-06**

Introduction

This Allotment Management Plan/Environmental Assessment (AMP/EA) addresses the Marlin grazing lease no. 3600669 on lands administered by the Bureau of Land Management (BLM), Spokane District. The lands are situated in the south and east of Marlin, Washington in Lincoln and Grant Counties (see map). This area is within the Upper Crab Creek Management Area of the Spokane District's Border Resource Area.

Purpose and Need

The purpose of this assessment is to address renewal of a 10-year lease for livestock grazing on the Marlin Allotment (00669). Management goals consistent with the multiple use objectives of livestock forage production, wildlife habitat and watershed needs as outlined by the Spokane Resource Management Plan Record of Decision (ROD) 1987 are incorporated into this document. The ROD specifies that Allotment Management Plans (AMPs) will be developed to establish livestock use levels, grazing systems, seasons of use, and the need for range improvements.

There is potential on this allotment to improve rangeland, riparian areas, and wildlife habitat, as described in this document. This allotment management plan proposes grazing use consistent with goals to improve or maintain existing conditions.

Location and Allotment Description

The Marlin allotment (see Map 1) encompasses approximately 4,837 acres of BLM-managed lands within:

T. 22 N, R. 31 E, W.M., Sections 4, 7,8,9,10,15,17,18,19, and 30.

T. 22 N., R.30 E, W.M., Sections 12,13 and 24.

The allotment consists of five pastures (four upland pastures and one riparian pasture), one developed spring and one windmill spring, and several water gaps allowing livestock access to Crab Creek. At times, the riparian pasture (Pasture 5) is divided by temporary electric fence (reference R1 and R2 in current grazing schedule).

Background and Conformance

Conformance With Land Use Plans: The Spokane Resource Management Plan (August, 1985. p. 55) specifies that allotment management plans (AMPs) will be developed to establish livestock use levels, grazing systems, seasons of use, and the need for range improvements. This allotment management plan conforms to that direction.

Description of Alternatives

Three alternatives were analyzed (Proposed Action, Continue Existing Grazing Plan, and No Grazing). These alternatives are described individually below.

Alternative 1 - Proposed Action

This alternative proposes to renew the Marlin grazing allotment lease for 10 years, incorporating grazing strategies described below, consistent with or moving towards a desired future condition consistent with multiple use goals of the BLM.

Grazing Plan

Permitted use would be established at 240 AUMs, with the potential for additional AUMs granted on a temporary non-renewable basis at the manager's discretion based on resource conditions. Currently for the 2003 grazing season, Animal Unit Months are established at 240 permitted use and 644 temporary non-renewable AUMs.

The lease would be implemented with a rest rotation grazing system or deferred rotation, using upland and riparian pastures. BLM-administered lands within the allotment would be grazed between 4/15 and 10/30 for a designated period of time to be determined annually. The season of use and rotation per pasture may vary, depending on environmental variability (such as weather), forage conditions, and management factors, as determined by the BLM Authorized Officer in consultation with BLM staff and the grazing lessee. Until the proposed range improvements and management actions are implemented, livestock grazing would adhere to the following 2003 grazing schedule.

125 cow/calf pairs with the following grazing rotation:

Pasture 2	4/12 through 4/26
Pasture 3	4/27 through 5/3
Pasture R1	5/3 through 5/10 (southeast riparian)
Pasture 4	5/10 through 5/24
Pasture R2	5/24 through 5/31 (southwest riparian)
Pasture 5	5/31 through 9/6 (this pasture is run in conjunction with private lands)
Pasture 1	9/6 through 10/4

In years subsequent to 2003, grazing use of each upland pasture would be deferred until after the growing season (approximately 4/15 to 6/15) of large native perennial bunchgrasses one out of every three years. Grazing use will be limited to 50% or less by weight of key forage species (large native bunchgrasses) during growing season in upland pastures.

Grazing of riparian areas would be on a case-by-case basis, as determined by the BLM. Cattle would be removed from pastures with riparian areas when stubble height requirements of 6 inches of key plant species are achieved, or before browsing or mechanical damage of shrubs by livestock could limit site capability and potential criteria.

If monitoring determines that the grazing guidelines discussed above are not being met, livestock would be moved to the next scheduled pasture in the rotation and grazed for the planned length of time or until the target utilization level is reached. If no pastures remain in the rotation, livestock would be removed from the allotment.

Harvest of alfalfa in the east half of Section 18 south of the railroad would no longer be authorized. This ground would be seeded to a grass seed mixture to benefit wildlife. Other irrigation practices on BLM lands would be discontinued.

Mowing of Reed Canary grass would be on a case-by-case basis as determined by the BLM Authorized Officer in consultation with BLM staff and the grazing lessee. Areas considered for mowing would be primarily in pasture 5.

Proposed Improvements

- Fencing would be constructed between the private and public lands south of the county road in Sections 17 and 18.
- The previously farmed areas in Section 18 (alfalfa ground) would be seeded to grass.
- An enclosure fence would be placed around the seep/seasonally wet area in Pasture 3.
- The hydrology of Crab Creek and associated wetland complexes would be restored, where appropriate, to achieve Proper Functioning Condition (PFC) and allow for successional adjustments towards Potential Natural Community (PNC) consistent with site capability and potential.

Proposed Riparian Improvements/Restoration:

- Ditches along Crab Creek in Pasture 5 may if found necessary be backfilled or contoured to restore hydrologic processes consistent with site capability and potential.
- In pastures 3 and 5 features such as road crossings and grade controls would be repaired or installed at appropriate locations so that water storage and release during periods of high flow occur without risk of erosion.

Alternative 2 - Renew Existing Lease (Continuation of Present Lease)

This alternative would renew the existing lease for a period of 10 years with no new range improvements proposed. Grazing levels and times of use would be established at 240 permitted use AUMs and 644 temporary non-renewable AUMs. Historical grazing levels have been between 824 and 907 AUMs, with the current grazing level of 884 AUMs. Grazing occurs mainly between 4/1 and 10/30.

Alternative 3 – Do Not Issue Grazing Lease

The grazing lease would not be renewed, and no livestock would graze. No range improvements would be constructed on BLM-administered lands.

Management Actions/Project Design Features For Alternative 1 (Proposed Action)

Range Improvements

- Additional range improvements may be constructed, based on monitoring, to achieve or maintain rangeland health standards as required by 43 Code of Federal Regulations, Subpart 4180 (Rangeland Health). Range improvements include any project or construction activity (including fences, spring developments, and cattle guards) occurring within the rangeland ecosystem that is designed to achieve or maintain Rangeland Health Standards as described in Standards for Rangeland Health and Guidelines for Grazing

Management (USDI 1997). An interdisciplinary team will review proposed range improvement projects for any needed mitigation measures.

- The grazing lessee will maintain all range improvements. The BLM may contribute materials, if available, for major repair work.

Riparian improvements

- The Joint Aquatic Resources Permit Application (JARPA), administered by the Washington Department of Fish and Wildlife, will include the construction details for features involved in the restoration process as described above. All appropriate permits, consultations (including Section 7 ESA and Tribal), and resource clearances will be completed prior to any construction.

Resource Inventories

- Appropriate resource inventories (including cultural, paleontology, botanical, and wildlife) will be conducted prior to implementing specific projects on the allotment. If important resources are identified or found, the project may be redesigned to reduce or eliminate impacts to those resources. If cultural properties cannot be avoided, consultation will be conducted with the Office of Archaeology and Historic Preservation, the Colville Confederated Tribes, the Spokane Tribe of Indians, and in some cases the Advisory Council on Historic Preservation.

Noxious Weed and Invasive Plants

- Noxious/invasive weeds will be treated or controlled using chemical or biological methods, as needed and according to the *Final EIS for Vegetation Treatment on BLM Lands in Thirteen Western States* dated July 1991, the Spokane District Noxious Weed Control Environmental Assessment, and any subsequent updates, revisions, or replacements to either of these documents.

Monitoring and Evaluation

- Monitoring and evaluation will be done in accordance with the Spokane District Monitoring Plan.
- Photo monitoring of riparian herbaceous communities, hardwood/shrub communities, and stream form and function criteria will consider site capability and potential criteria, consistent with Rangeland Health Standards.
- Utilization levels of key upland native plant species will be 50% utilization of current year's growth by weight.
- Upland bunch grasses will be monitored to assess the effects of grazing and to determine any needed changes in management.
- Other evaluations of the allotment use and resource values, in addition to the Rangeland Health Assessment, will be conducted as needed, after reviewing the monitoring reports.

Administrative:

- This allotment will be managed as an (I) Improve selective management category allotment in accordance with direction in the Spokane RMP/EIS (1985, page 54) and the Spokane Resource Management Plan Record of Decision (1987, page 25), that provides for “T” status when allotments have a potential for resource improvement and are manageable to BLM being the dominant landowner within the allotment.

Affected Environment and Environmental Impacts

The allotment was used for the effects analysis as it relates to direct, indirect and cumulative effects of each alternative. Reasonably foreseeable future actions considered in the allotment analysis include various recreation activities (such as hunting and hiking), grazing, and vehicular road use. Reasonably foreseeable future actions are those activities that may occur over the next 10 years, which is the length of the proposed grazing lease.

The following text is presented by affected environment and impacts for each resource value considered in the analysis. The focus of both the description and impacts sections is on resources that have potential for significant impacts.

Soils/Vegetation/Water

Rangeland Soils and Plant Communities

Crab Creek and the Burlington Northern railroad line that follows the creek valley bisect the parcel. There is irrigated alfalfa in the bottomlands along Crab Creek, in Section 18.

An Ecological Site Inventory conducted in 2002 identified about 70 acres at a late-seral ecological status, meeting hydrological function, biotic integrity, and soil stability criteria.

Approximately 3,800 acres rated as mid-seral and were meeting the criteria for Hydrological function, soil site stability, and biotic integrity. The component responsible for placing these sites at the mid-seral stage was a slight to moderate deviation from the Potential Natural Community as outlined in the Ecological Site Inventory guides. An example is a site dominated by Sandberg’s bluegrass variety *ampla* instead of bluebunch wheatgrass. Sandbergs bluegrass is similar in functional and structural components to the bluebunch wheatgrass but is not associated with late seral conditions as is the bluebunch wheatgrass.

Approximately 640 acres are rated at early seral condition with the majority of these sites meeting hydrological and soil stability criteria. The limiting factor contributing to the majority of these sites that rated as early seral is the biotic component. Sandbergs bluegrass and a minor component of cheatgrass dominate 390 acres of sites rated as early seral. An additional 130 acres of non-native crested wheatgrass dominates an old field previously under cultivation. There are 120 acres of early seral sites under agricultural use to include irrigation of Kentucky bluegrass and the cultivation of alfalfa. The remaining early seral acres have had previous disturbance from gravel removal, excavation and dumping of old farm equipment. However, with current grazing management, the 390 acres rated as early seral are anticipated to move toward meeting the standards. The additional acreage that is rated as early seral will likely require mechanical and or chemical restoration to meet or move toward meeting the standard.

Overall, the allotment contains an intact biotic crust and a diversity of native plant communities appropriate to soil depth, topography and aspect.

The upland area (most of sections 7, 8, 9, and 17) on the north side of Crab Creek consists of very dry, open shrub steppe vegetation with a southerly aspect. At the time of the botanical survey, overall conditions were good, with low coverage of invasive non-native plant species and high coverage of native bunchgrasses and shrubs. Analysis of Observed Apparent Trend suggested an upward trend for the area north of Crab Creek.

The upland area to the south of Crab Creek consists of sagebrush steppe vegetation on numerous small mesas and swales. The general aspect is northerly. This area is less dry than the area to the north of the stream. The majority of the upland area is in good condition, although grasses are low and sparse. Botanical diversity, especially of forb species, is greater in the area to the south of Crab Creek than in the area to the north of the creek. The southern area seems to be somewhat moister, perhaps due to the predominantly northern aspect. There are more swales with Basin wildrye in the southern area. Analysis of Observed Apparent Trend suggested a static condition in the area south of Crab Creek.

The following plant communities are found within the parcel: big sagebrush/ needle and thread grass, rigid sage/ Sandberg's bluegrass, threetip sagebrush/bluebunch wheatgrass, basin wildrye/ inland saltgrass, and big sagebrush/ bluebunch wheatgrass.

The big sagebrush/needle and thread grass community is quite common within the parcel, and is in mosaic with the rigid sage/Sandberg's bluegrass community. Generally, the big sagebrush/ needle and thread grass community is only in fair condition due to exotic cover (primarily cheatgrass). Big sagebrush and needle and thread dominate this community. Other species include cheatgrass, buckwheat species, hawksbeard (*Crepis*) species, Sandberg's bluegrass, phlox and milkvetch (*Astragalus*) species.

The rigid sage/Sandberg's bluegrass community is common on top slopes with thin soils, and is in mosaic with the rigid sage/Sandberg's bluegrass community. Bare ground and rock are predominant in this community, which is characterized by rigid sage and Sandberg's bluegrass. Herbaceous cover is virtually 100%, with less than 5% shrub cover. Three species dominate, a sedge species (likely Douglas' sedge which is often found with basin wildrye), basin wildrye, and inland saltgrass. Other species include big sagebrush (around 1% cover), cheatgrass, and traces of wax currant Thurber's needlegrass, and traces of bluebunch wheatgrass, snow buckwheat, balsamroot, and fleabane.

The threetip sagebrush/bluebunch wheatgrass community is present on the south side of Crab Creek, on steep north slopes. Community condition is generally good. The community is in mosaic with the rigid sage/ Sandberg's bluegrass and the big sagebrush/ needle and thread grass communities. Herbaceous cover is high (51-75%), consisting of Idaho fescue, bluebunch wheatgrass, balsamroot, cheatgrass, and traces of basin wildrye, crepis, fleabane, Gray's biscuitroot, tarragon, yellow salsify, wallflower, and yarrow. Shrub cover is fairly low (11-25%) with threetip sage dominant both rabbit brush species, wax currant, and purple sage present.

The big sagebrush/bluebunch wheatgrass community predominates in deep-soiled flat areas. Its condition is generally good. Shrub cover is 6-10%, and herbaceous cover is 26-50%. Bare ground also occupies 26-50%. Lichen cover is high. Shrubs include big sagebrush, both rabbit brush species, and traces of phlox. Dominant herbaceous species include bluebunch wheatgrass,

cheatgrass, and Sandberg's bluegrass, with traces of fleabane, Indian paintbrush and Indian wheat.

Impacts on Rangeland Soils and Plant Communities

Alternative 1: The proposed grazing system would allow recovery of the native bunchgrasses in those areas where heavy grazing has reduced cover. The combination of decreased grazing, greater control of BLM lands from fence construction between the private and public lands, and resting of upland pastures during the bunchgrass growing season one out of three years would increase native bunchgrass cover by increased growth of individual bunches and recruitment of new seedling plants. Native herbaceous cover would also benefit from this management strategy via the same mechanisms. Livestock may increase soil compaction in areas of heavy or significant use such as trails and near watering sites.

Alternative 2: Continuation of the existing lease with no new range improvements would result in a continuation of current impacts to native bunchgrasses and riparian systems. Having no additional fences would also reduce the opportunity for a rest rotation or deferred rotation system. Impacts to soils would also remain similar to the existing condition.

Alternative 3: If the grazing lease were not renewed, vegetation conditions would likely improve more rapidly than if grazing were to continue. Native bunchgrass cover would increase by increased growth of individual bunches and recruitment of new seedling plants. Native herbaceous cover would also benefit from this management strategy via the same mechanisms. Livestock would not affect soils and soil structure would likely improve over time.

Riparian Soils and Plant Communities

The Marlin parcel contains approximately 6.4 acres of lentic habitat, and approximately 6.7 miles of ephemeral lotic habitat. Proper functioning condition (PFC) determinations were originally performed in 1995 and reassessed in 2002. All lentic systems were determined to be in proper functioning condition, thereby meeting the standard for watershed function. In 2002 approximately 3.4 miles (50.7 %) of lotic systems were determined to be in PFC, and approximately 2.6 miles were considered to be Functional at Risk (FAR). An additional 0.7 miles not assessed in 2002 were considered FAR in 1995. Therefore, this allotment is not currently meeting the standard for watershed function of riparian areas; however, the proposed action in the annual management plan should allow significant progress toward meeting the standard.

General riparian issues of concern include: reduced riparian and floodplain habitat quality due to the limited diversity of vegetation, heavily browsed riparian shrub pockets, and the impact to native vegetation at cattle watering sites and adjacent stream channels.

Impacts on Riparian Soils and Plant Communities

Alternative 1: The proposed grazing regime and range improvements would likely result in an overall improvement in the growth, structure, and diversity of riparian vegetation/riparian habitat from the existing condition.

Alternative 2: The riparian areas would likely remain in a functional at risk category with a static or downward trend.

Alternative 3: The riparian objectives would likely be met in all pastures containing lotic and lentic habitat with time and at a faster rate than under a grazing alternative.

Special Status Plants

Based on distribution records from the Washington Natural Heritage Program (1999), 12 special status plant species potentially occur in the area. However, field evaluation of the grazing allotment determined that habitat for many of the potential Special Status species is not present.

No populations of Special Status plant species have been found within this allotment although several rare plant surveys have been done. It is unlikely that Spalding's catchfly (*Silene spaldingii*) occurs here, as it has not been found in areas this far west in Washington State. There is some potential for Washington polemonium (*Polemonium pectinatum*) in upland swales. Upland swale and wetland habitats were the focus of the 2002 survey. No Washington polemonium plants were found in the course of the surveys. All mapped wetlands were dry at the time of the most recent survey, and the tributary to Crab Creek was dry as well. No Special Status plant species were found within the mapped wetlands, and there is little or no potential for Special Status plants dependent on wetland or riparian habitat, based on the fact that the wetlands were completely dry in June.

Impacts on Special Status Plants

No impacts to any special status plant species are expected under any alternative.

Plants of Cultural Importance

Several berry-producing shrubs occur on the allotment, including serviceberry, red-osier dogwood, wax currant, and rose. Bulb-bearing plants used by original peoples include several *Lomatium* species and yellow bell (*Fritillaria pudica*).

Impacts on Plants of Cultural Importance

Alternative 1: The proposed grazing regime and range improvements would likely result in reduced impacts by livestock and an increase in both availability and abundance of plants of cultural importance.

Alternative 2: Impacts from livestock grazing would remain similar to the existing condition.

Alternative 3: No grazing would likely lead to an increase in the availability and abundance of plants of cultural importance.

Noxious Weeds

Noxious weeds found within the Marlin Allotment, by descending size of infestation, include: Russian Knapweed, diffuse knapweed, Canada thistle, Dalmatian toadflax, bull thistle and giant reed. These noxious weeds are scattered throughout the allotment, collectively totaling 50 acres. Both herbicide and biological control insect treatments have been implemented on portions of the Marlin Allotment since 1990. Noxious weed treatments have substantially reduced weed populations, and follow-up treatments are required as maintenance.

Impacts on Noxious Weeds

Alternative 1: The lack of farming practices on the irrigated alfalfa ground and other areas under cultivation could lead to an increase in the populations of some noxious weed species. Current weed management would continue to reduce weed populations.

Alternative 2: Noxious weed populations would remain similar to the existing condition.

Alternative 3: No grazing would reduce sites of concentrated use by livestock and reduce the number of potential sites for the recruitment of noxious weed species. The absence of livestock would also eliminate the potential for transporting and spreading some weedy species. The current weed management would continue to decrease weed populations.

Water

Crab Creek and its tributaries, as they intersect the Marlin Allotment, are classified by the state of Washington as Class “B” surface waters. A Class “B” rating denotes good water quality. Water quality of this class shall meet or exceed the requirements for most uses including stock watering, fisheries, wildlife habitat and recreation. These segments of Crab Creek are not listed as 303(d) impaired surface waters.

Impacts on Water

Alternative 1: Impacts to water quality associated with livestock grazing would be reduced by greater control of livestock on BLM-administered lands.

Alternative 2: Impacts would remain the same as the existing condition under this alternative.

Alternative 3: The no grazing option would eliminate the impacts to water quality from livestock utilizing BLM-administered lands.

Wildlife Habitat

The shrub-steppe habitat (84% of allotment), riparian-wetlands (2 %), cliff and talus (8%), and grassland (6%) habitats within the Marlin allotment are BLM and State priority wildlife habitats. These high priority habitats provide critical nesting, foraging, and predator protection for numerous species.

Special Status Species

Three categories of special status species were considered: (1) species present on the allotment at the time of the survey, (2) species with potential to use available habitat, and (3) species historically present.

Federally Listed species: One federally threatened species, the bald eagle (*Haliaeetus leucocephalus*) was observed on this allotment during surveys in March of 2002. Bald eagles are common winter residents and uncommon breeding residents along lakes, large rivers and reservoirs in eastern Washington (McAllister et al. 1986, USFWS 1986). No other federally

listed wildlife species were detected on this allotment, although sage grouse (a federal candidate FC species) and sharp-tailed grouse (a federal species of concern FCo) have historically inhabited the region.

State Listed/Candidate and BLM Sensitive Species: One special status mammal was detected on the Marlin allotment during surveys in 2003. Washington ground squirrels (*Spermophilus washingtoni*) a state species of concern (SC) and federal candidate species (FC) were observed during surveys conducted in May 2003. Cattle impact to ground squirrel burrows appeared to be minimal.

No other federally proposed, listed threatened or endangered wildlife species are known to currently occur within the parcel or general vicinity (10 mile radius). A number of state special status species have been documented within the parcel or general vicinity (10 mile radius). These include the following: American white pelican (*Pelecanus erythrorhynchos*, SE), ferruginous hawk (*Buteo regalis*, ST, FCo), loggerhead shrike (*Lanius ludovicianus* SC), sage thrasher (*Oreoscoptes montanus*, SC), and White-tailed jackrabbit (*Lepus townsendii*, SC).

General wildlife habitat concerns on this allotment include: browsing of upland shrub pockets, impacts to native vegetation at cattle watering site, and adjacent stream channels (pasture 3).

Impacts on Wildlife Habitat

Alternative 1: The proposed grazing system and improvements would likely improve the condition of the shrub pockets and springs in Pastures 1 and 3. Springs and associated shrub communities provide important ecological needs (nesting structure and cover, predator evasion, forage, etc.) to many species. Neotropical migrant birds, small and large mammals, and amphibians utilize these areas. Upland habitat critical for shrub-steppe obligate species such as shrub-steppe nesting birds (Brewer's, lark, sage, and Vesper's sparrows; sage thrasher, and loggerhead shrike, etc.), mammals (Washington ground squirrel, white-tailed jackrabbit, etc.), and reptiles is likely to be maintained at current levels and may increase with implementation of the proposed rangeland improvements.

Alternative 2: The renewal of the existing lease with no range improvements (no additional fencing separating private land from public land) and with grazing remaining at the current rate may have a negative impact on vegetation and therefore wildlife habitat. Areas currently heavily impacted by cattle grazing (i.e. scattered upland areas and springs in pastures 1 and 3) are not likely to improve under Alternative 2. Wildlife habitat quality and quantity under current and expected future condition following this alternative would likely remain below site potential.

Alternative 3 (No Grazing): This alternative would likely increase available forage for wildlife by allowing upland vegetation (both grass and shrubs) and shrub pockets to regenerate. Upland pasture vegetation would likely increase in height and cover, and provide increased forage and nesting habitat for shrub-steppe dependent species. No grazing would reduce livestock-induced burrow collapse and increase the available forage for the Washington ground squirrel.

However, if no range improvements are constructed, in particular if no fencing is built between private and public land, there would be no way to assure that grazing on public land would cease.

Cultural Resources/Native American Values

Members of the Moses Columbia Tribe and possibly neighboring groups including the Sanpoil-Nespelem within the area traditionally use this grazing allotment. Dry upland lithosols in this area support populations of the edible roots that made up a significant part of the aboriginal diet. Crab Creek, which runs through the parcel, provided such riparian resources as waterfowl and the rushes used for the mats that covered winter houses. Many shrubs in the area produce fruits traditionally used by indigenous peoples. When the area was surveyed in 1873, the surveyors noted Indian trails, a wagon road and Euro-American residences near the middle of the parcel.

Parts of the allotment have been surveyed for cultural resources. These include: 250 acres in Section 12 and 13 and 18, which were surveyed for a fence line in 1994; 12 acres in the SW quarter of Section 18, surveyed in 1996; and roughly five acres along a proposed fence line in Section 20 surveyed in 2000. One possible house pit site was located as a result of these surveys. Several sites including rock cairns, alignments, and talus pits have been recorded in the surrounding area, but this appears to be the only known site on BLM land.

A letter initiated consultation with tribal governments on this and other grazing lease renewals and accompanying maps dated December 17, 2002. The letter was sent to the Confederated Tribes of the Umatilla Reservation, Colville Confederated Tribes the Spokane Tribe, the Yakama Indian Nation, and the Washington State Office of Archaeology and Historic Preservation (OAHP). A letter dated December 23, 2002 from OAHP concurred with the Area of Potential Effect. No specific concerns were identified with grazing lease renewals

Impacts on Cultural Resources

Alternative 1: Adding the proposed rotations to the grazing plan would likely allow recovery of the native bunchgrass communities in areas where heavy grazing has reduced cover. The combination of decreased grazing, greater control of BLM lands from fence construction between the private and public lands, and resting of upland pastures during the bunchgrass growing season one out of three years would increase native bunchgrass cover. Traditional Native American food plants, particularly root crops that are part of these bunch grass plant communities would probably increase; and result in more plants available for harvest. Early spring grazing would result in the loss of the identifiable above ground parts of Native American traditional use plants.

Range improvements (including fencing, spring development, ditching, recontouring and reclamation of ditched areas) would have potential to disturb subsurface archaeological materials. However, this potential would be mitigated by the requirement for Level III Cultural Resources Surveys preceding ground-disturbing activities stated under *Management Actions and Project Design for Alternative 1* and by immediate notification of the District Archaeologist if cultural materials are encountered during construction of range improvements.

Alternative 2: Renewing the grazing lease without changes and without construction of additional range improvements would not likely be no impacts to cultural resources beyond those already occurring. If grazing results in complete removal of ground cover there is a possibility of erosion, which could have an impact on subsurface archaeological material.

Alternative 3: If the grazing lease is not renewed, removal of grazing pressure and absence of cattle as transporters of weed seeds would probably allow native plant communities, including

aboriginal food plants, to regenerate, resulting in the availability of more plants for harvest. However, lack of grazing pressure may result in an overgrowth of exotic weed species already present in the parcel and decreased populations of native root crops. Continuation of the present treatment of exotic weeds would probably minimize this possibility. Soil compaction and the likelihood of erosion due to removal of ground cover will be reduced. Both of these processes are potentially damaging to sub surface archaeological material.

Paleontological Resources: No Paleontological resources have been found in this grazing allotment or the immediately surrounding area. Although fossils have been found in the Columbia Plateau they are not abundant, and the probability of finding them on this allotment is low. The most plentiful fossils on the Plateau occur in the sedimentary strata between basalt flows. None of this material has been observed in this allotment. None of the alternatives would have an impact on paleontological resources.

Recreation

This allotment is within the dispersed recreation area (wild land recreation area) and is valued for scenic qualities as part of the Channeled Scablands. The area offers over one and a half miles of Crab Creek frontage, wetlands, and unique basalt scab rock formations. Recreation use has primarily consisted of upland bird and deer hunting. In the past these activities have taken place without conflict with grazing. During the past year there has been and increased interest in fishing access, bird watching, dispersed camping, and Special Recreation Permit (SRP) opportunities, such as dog trials and orienteering.

Impacts on Recreation

Alternatives 1 and 2: Overall, actions within these alternatives are not expected to have any permanent impacts on the recreational uses in this area, although the presence of livestock may discourage some recreational activities. Future conflicts are unlikely, but may increase due to projected increases in recreational use on public land. Placement of BLM Boundary signs along any existing and/or new perimeter fence lines would help the public better identify BLM managed land. Any additional range improvements would need to consider providing for non-motorized public access prior to implementation.

Alternative 3 (No Grazing): Recreational uses of the area would not likely be impacted under this alternative.

Socioeconomic

For the lessee, the grazing lease is both a social and economic benefit. It supports a small grazing operator, providing forage for about 880 AUMs, and it also supports the local cattle industry. For the BLM, this grazing lease represents annual revenue of approximately \$1,100 at current BLM animal unit month costs.

The recreational activities in the general area, including this allotment, provide some economic support to the local community of Odessa through purchases of goods and services. The BLM cooperatively supports Odessa's economic development through tourist brochure publications.

Impacts on Socioeconomics

Under the action alternatives (Alternatives 1 and 2), the BLM would receive approximately \$1,100 annually in grazing fees and support multiple uses, including livestock grazing. Under Alternative 3, there would be a loss of approximately \$1,100 in receipts in the grazing program and also a loss of pasture use to the lessee.

Cumulative Effects

This allotment is part of the upper Crab Creek subbasin (1,172,104 acres), which consists of only slightly more than 4 percent BLM-managed lands (51,267 acres). Most of this BLM acreage is within grazing leases. The Marlin Allotment represents less than 1% (two-tenths percent) of the lands within the total subbasin and approximately 5% of BLM-administered lands within the Crab Creek subbasin.

The proposed management actions and grazing regimes would result in maintaining or improving various habitat components.

Other Resource Elements Analyzed

No disproportionately high and adverse human health or environmental effects on minority or low-income populations are expected to result from implementation of any of the alternatives addressed in this EA.

Other resource values or elements considered in analyzing the alternatives included:

- Air quality
- Paleontological resources
- Wild and scenic rivers
- Prime/unique farmlands
- Special area designations
- Wilderness
- Hazardous/solid material

Air quality would not be affected. None of the other elements listed above occur on the allotment. In addition, none of the alternatives would adversely affect mineral or energy development.

Other Resource Elements Analyzed

Environmental Justice

No disproportionately high and adverse human health or environmental effects on minority or low-income populations are expected to result from implementation of any of the alternatives addressed in this EA.

Coordination/Consultation With Other Agencies, Groups, and Individuals

An interdisciplinary team (IDT) of various resource specialists reviewed the affected environment and three alternatives for this grazing allotment. Specialists provided input about

affected environment and potential impacts for their specific resource responsibility. See EA cover page for a list of the specialists who provided input to this analysis.

Consultation letters dated November 2, 2002 on the renewal of the Marlin grazing lease were sent to the Colville Confederated Tribes, the Spokane Tribe of Indians and the Washington State Office of Archaeology and Historic Preservation. No concerns regarding this project were expressed.

The EA will be made available for public review and comment, as announced through a legal publication in the Spokesman Review newspaper, a major publication in eastern Washington; a news release to the Odessa Record and Davenport Times, newspaper publications in Lincoln County; and on the Spokane BLM website <www.or.blm.gov/spokane>. Copies of the EA will also be mailed for review and comment to the grazing lessee, the Colville Confederated Tribes, and the Spokane Tribe of Indians.