

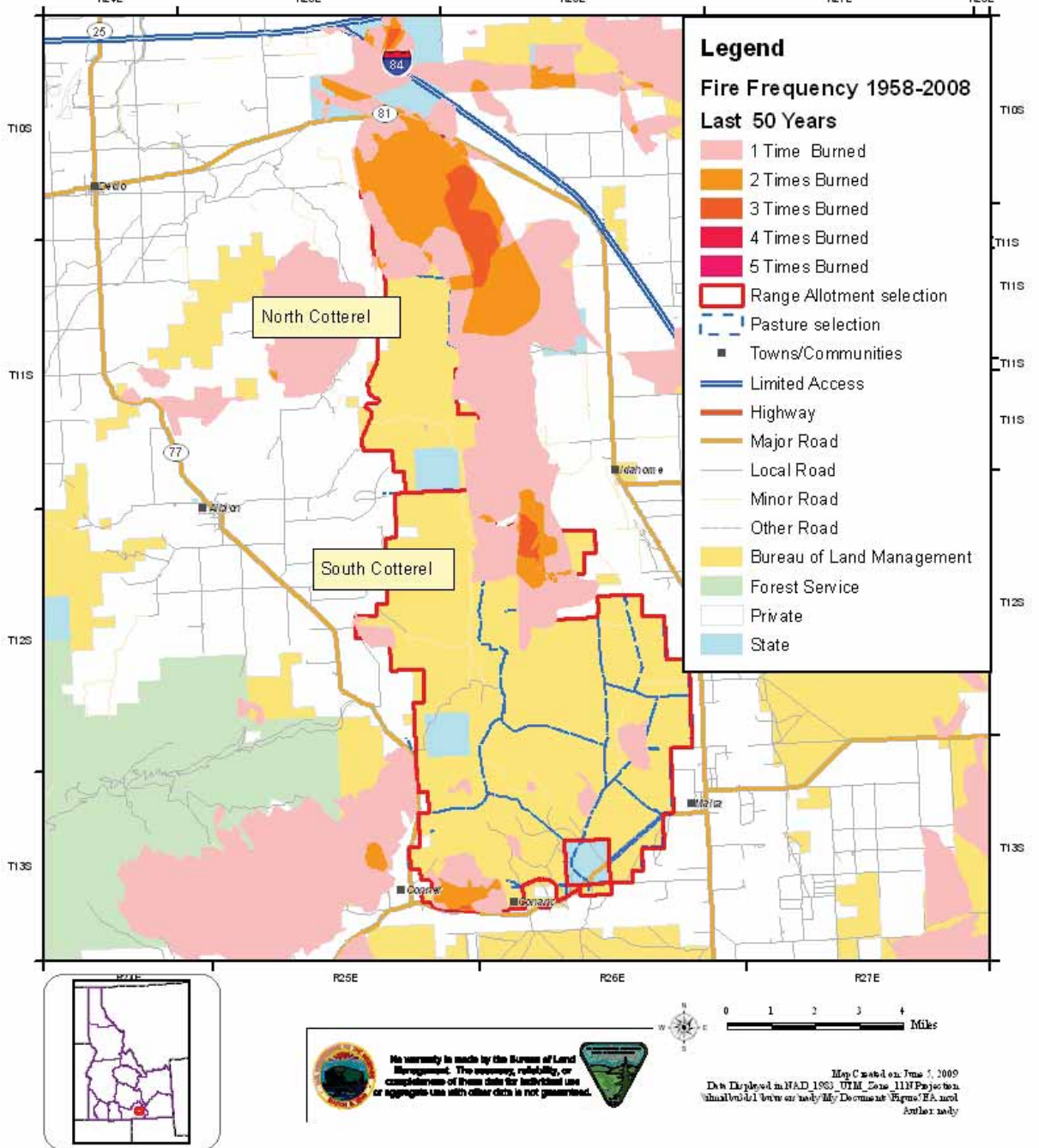
There is only one special status plant species that has been identified by the Idaho Conservation Data Center (CDC), or the BLM on the Cotterels, the Simpson's hedgehog cactus. Cotterel Mountain supports a large population of Simpson's hedgehog cactus (BLM 2006). This plant is a Type 5 (Watchlist) species and is not considered a sensitive species.

A wildfire burned 4,160 acres of juniper on the north end of the North Cotterel Allotment in the mid- 1980's. No rehabilitation efforts took place after the fire. In 2002 a wildfire burned the east side of the allotment (Horse Butte fire). After the Horse Butte fire, 429 acres were drilled seeded with a native-like seed mixture that successfully established itself. Another 1520 acres were aerially seeded with mountain big sagebrush which currently appears to have been minimally successful. In 2007, the Guinn Canyon fire burned the north end of North Cotterel Allotment. Rehabilitation efforts included seeding a variety of native-like and exotic perennial grass species and sagebrush.

In 1999, the BLM treated the Rice Canyon area with a prescribed burn. The Malta-5 fire burned in 2000 in the Coe Creek area. In 2006, the Conner fire burned the south pasture of Nibbs (see Figure 5). The rehabilitation efforts included aerially seeding Wyoming Big Sagebrush, bluebunch wheatgrass, crested wheatgrass and Sandberg bluegrass.

Figure 5. Fire History of the Cotterels

FIRE HISTORY OF NORTH AND SOUTH COTTEREL



United States Department of the Interior
 Bureau of Land Management
 Twin Falls District, Idaho

Figure 5

South Cotterel had nine upland sites evaluated for rangeland health. Vegetation on these nine sites included bluebunch wheatgrass, crested wheatgrass, Wyoming sagebrush, low sagebrush, black sagebrush, hooker's balsamroot, Sandberg bluegrass, buckwheat, bottlebrush squirreltail, rush-pink, green rabbitbrush, cheatgrass, hood's phlox, snakeweed, long leaf phlox, death camas, six weeks fescue, globe mallow, four-wing saltbrush, rubber rabbitbrush, salsify, fleabane, buckbrush, false yarrow, milkvetch, low larkspur, Indian paintbrush, western wheatgrass, bushy bird's beak, mustard, tapertip hawksbeard, Utah juniper, bulbous bluegrass, bitterroot, lupine, serviceberry, wild rose, native thistle, and various other forbs.

Sagebrush cover varied from 0% to 22% cover at these sites. Vegetation characteristics such as plant vigor, plant mortality, and amount of recruitment varied from site to site. Four out of the nine sites indicated cheatgrass was present, from sparse communities around rodent activity to 8% cover in burned areas. One site mentioned heavy utilization by livestock. Standards 4 and 5 were being met on the allotment based upon these evaluations.

The following describes the condition of upland vegetation in the allotments based upon the findings of the Standards and Guidelines Evaluation for the North Cotterel Allotment.

North Cotterel had five upland evaluation sites. Vegetation included bluebunch wheatgrass, bulbous bluegrass, western wheatgrass, three tip sagebrush, low sagebrush, Wyoming sagebrush, serviceberry, grey rabbitbrush, green rabbitbrush, lupine, long-leaf phlox, Utah juniper, bluegrass, snakeweed, bluebells, cheatgrass, stoneseed, taper-tip hawksbeard, lupine, chocolate lily, rock cress, milkvetch, larkspur, prairie star, hood's phlox, barrel cactus, bitterroot, Indian paintbrush, buckwheat, burr buttercup, sego lily, death camas, penstemon, biscuit root, and various other forbs.

Sagebrush cover varied from 0% to 30% at these sites. While the majority of the sites' indicators rated in the plus to intermediate category, one site had a minus rating in the Noxious and Invasive category due to the common occurrence of bulbous bluegrass and cheatgrass in plant communities. Cover of these invasives was estimated at 14% at that location.

The Determination for Rangeland Health has not been completed on North Cotterel. Both allotments were assessed with observations of juniper encroachment.

Rangeland Resources and Allotment Studies Information

In 2008, the interdisciplinary team established two key areas for monitoring (utilization and 3x3' long term trend photo plots) on North Cotterel Allotment and seven key areas on South Cotterel. These are in addition to the existing 3 x 3' trend plots on North Cotterel (three) and South Cotterel (nine). More key areas will be established in the future based on monitoring needs.

In the North Cotterel 2005 Rangeland Health Assessment, the trend analysis stated:

“There are three long-term 3 x 3' trend plots (see Figure 6) on North Cotterel that were established in 1984 and re-read in 1987, 1990, 1993, 1999 and 2004. These three plots are located in the northern half of the allotment. Trend observations were based on both photos and

data. However, in some instances the data (species composition) were inconsistent with what the photos depicted. Ultimately, photos were used to analyze trend. In plot 1, the trend is not apparent based on the information available. Landscape view photos show a loss of bluebunch wheatgrass outside the plot since 1999. Inside the plot, it appears Sandberg bluegrass has increased and bluebunch wheatgrass decreased slightly. The photos of plot 2 show bluebunch wheatgrass has decreased and Sandberg bluegrass has increased. Trend is upward in plot 3 based on an increase of sagebrush and bluebunch wheatgrass. Plot 3, is in the same vicinity as site 5 in the rangeland health assessment. The area is transitioning from a grass dominated site (after wildfire in 1981) to a shrub dominated site”.

In 2007, trend plots 1 and 2 were burned in the Guinn Canyon fire and are in the area of the rehabilitation seeding. A new baseline will be established with photos after plant establishment. Plot 3 has not been photographed since the 2005 evaluation.

The Rangeland Health Assessment (2004) for the South Cotterel Allotment analysis of trend is included in the Table 7 as well as the current analysis.

Table 7
Trend Plot Studies Summaries on the Cotterels

Trend Plots on South Cotterel Summary*				
Allotment and Plot Name	Key species	Trend in 2004 (S&G Eval.)	Current Trend	Comments
South Cotterel-Summit Plot 1	Bluebunch wheatgrass	Static	No 2008 photo	Plot is located on state land and was not photographed in 2008
South Cotterel-Summit Plot 2	Bluebunch wheatgrass	Decrease in key species, increase in sagebrush	2008 photo appears to have more basal cover of grass	
South Cotterel-Summit Plot 3	Bluebunch wheatgrass	Key species is increasing	2008 photo shows an increase in bluebunch wheatgrass	
South Cotterel-Nibbs Plot 1	Sandberg Bluegrass	Increase in key species since 1970	Snakeweed is increasing and grass is decreasing within plot. Good litter.	Trend is not apparent. The plot and landscape views show two different scenarios. Plot photos show more snakeweed and less grass than the landscape view photos. Landscape photos taken in 2001 and 2008 show fewer weeds than the 1991 photo.
South Cotterel-Nibbs Plot 2	Bluebunch wheatgrass	Loss of key species, Sandberg bluegrass is relatively static, sagebrush is increasing	No 2008 photo.	Photos from 1986, 1991, and 2001 look similar. Differences in data itself. Photos show loss of one sagebrush plant but recovery since 1996.

Trend Plots on South Cotterel Summary*				
Allotment and Plot Name	Key species	Trend in 2004 (S&G Eval.)	Current Trend	Comments
South Cotterel-Pasture 3, Plot 1	Crested wheatgrass	Loss of key species, increase in sagebrush	One more crested wheatgrass plant in 2008 photo than in 2001	Appears to be a small amount of recovery in grasses.
South Cotterel-Pasture 6, Plot 1	Bluebunch wheatgrass	Increase in key species	Trend is relatively stable, sagebrush is increasing	Comparison of 1969 photo to 2008 photo shows recovery of bluebunch wheatgrass and sagebrush.
South Cotterel-Pasture 8, Plot 1	Bluebunch wheatgrass	Key species and sagebrush have decreased slightly	No 2008 photo	

*Based on Summary by ID team – Plots established prior to 2008

PREDECISIONAL

Figure 6 Trend Plot Locations on the Cottlerels

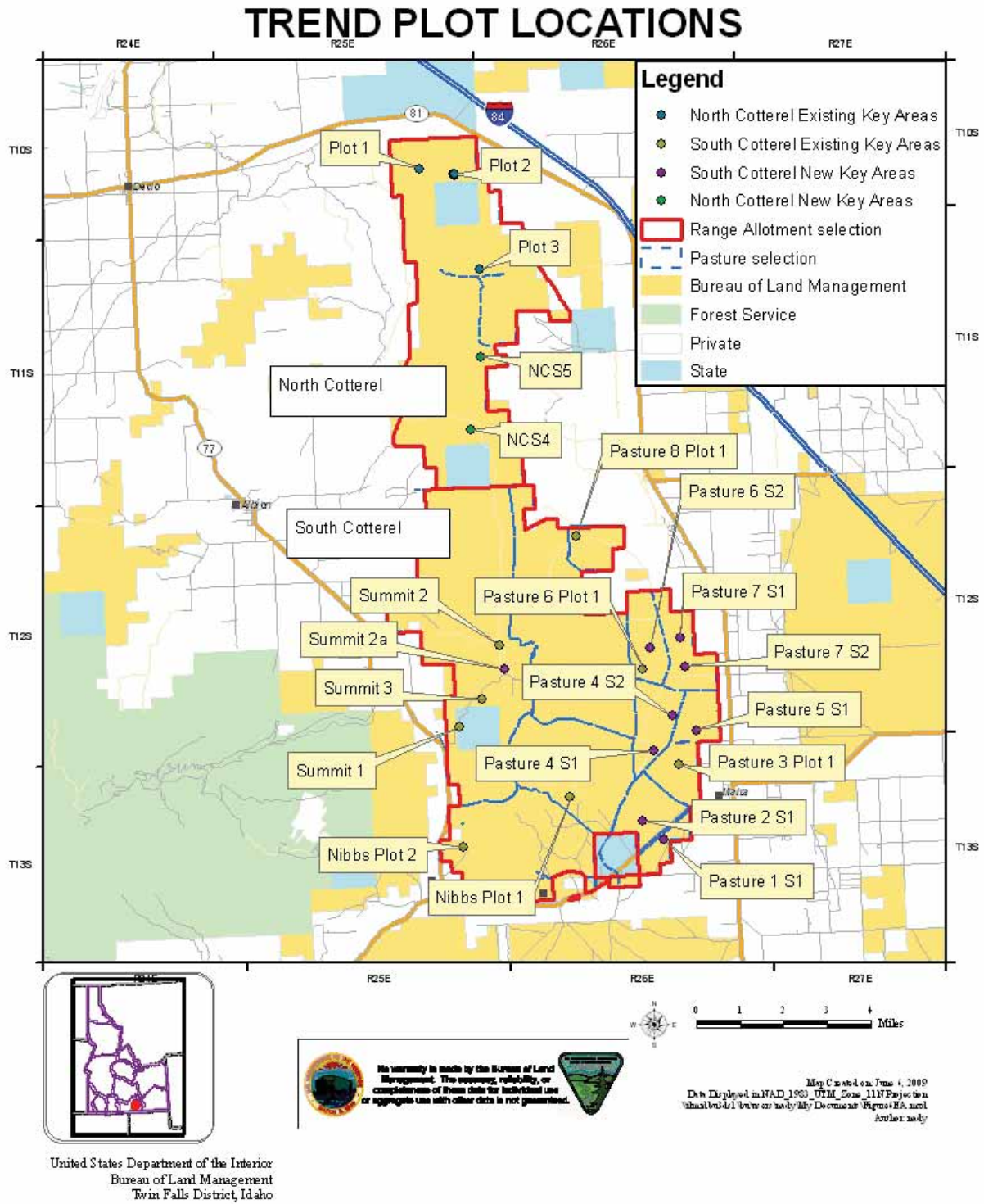


Figure 6

Utilization analysis from the Rangeland Health Assessment for North Cotterel stated: “Bluebunch wheatgrass is a key forage species and utilization in any one year should be less than 40% (Cassia RMP 1984). Crested wheatgrass utilization standards are less than 60%. The native-like seeding on the east side of the mountain is also managed at a 40% utilization level. In 2004, utilization was collected in three separate locations. Average utilization was recorded as 50%, 34% and 29% in native range.”

Utilization measurements taken after the field assessments were written are found in Table 8 below.

Table 8
Utilization on the Cotterels

Summary of 2008 Utilization Data on North and South Cotterel Allotments*				
Allotment	Site	Utilization	Key Species	Date
South Cotterel	Pasture 3	56.2%	Crested wheatgrass	10/15/08
South Cotterel	Pasture 6	24.4%	Bluebunch Wheatgrass	4/23/08
South Cotterel	Pasture 7, Site 2	29.7%	Bluebunch Wheatgrass	10/08/08
South Cotterel	Pasture 4, Site 2	34.9%	Crested wheatgrass	8/05/08
South Cotterel	Pasture 1	57%	Crested wheatgrass	9/26/08
South Cotterel	Pasture 7, Site 1	43.7%	Crested wheatgrass	10/08/08
South Cotterel	Pasture 2	51.0%	Crested wheatgrass	10/15/08
South Cotterel	Pasture 4, Site 1	36.7%	Bluebunch Wheatgrass	10/15/08
North Cotterel	NCS4 (Potter Spring)	34%	Bluebunch Wheatgrass	10/08/08
North Cotterel	NCS5 (Horse Butte ESR)	42.2%	Bluebunch Wheatgrass	10/08/08

*Data collected using utilization wheel method

Wildlife Species (Non-Sensitive)

There are approximately 6,414 acres of crucial mule deer winter range in the Cotterels. Overall, the habitat is good quality for mule deer with plenty of browse species for forage and ample Utah juniper and sagebrush for cover. Furthermore, numerous small springs, livestock watering facilities, and guzzlers provide water for mule deer year-long. Competition for food between cattle and mule deer is most notable during the spring when dietary overlap can be as high as 60% (Tortenson et al. 2006).

Cultural Resources

Should discovery of adverse effect(s) be noted on any eligible or potentially eligible cultural resources as a result of actions permitted under this grazing permit and lease renewal, individual cultural resource damage and impact assessments will be conducted to recommend appropriate protective or other site specific mitigation measures (BLM Manual 8140 § .24B2).

Cultural Resources will not be discussed further.

Recreation Use, Existing and Potential

Recreation, including backpacking, horseback riding, camping, hunting, off-highway vehicle (OHV) use, and hiking are some of the uses that occur on the Cotterels. There is one developed recreation site on South Cotterel at McClendon Spring and one picnic area at Coe Creek Recreation Site. The fence around the Coe Creek Recreation Site was replaced in 2008 to continue to discourage livestock use around the picnic site.

ENVIRONMENTAL CONSEQUENCES

NO ACTION – ALTERNATIVE 1

Migratory Birds

Direct and Indirect Effects

Under the current grazing system, cattle may directly affect northern harrier or short-eared owls by occasionally disturbing or trampling nests, though this effect would be minimal because the nesting density of these species would not be great and there are no known nests of either of these species in the allotment. Renewing the permit would not change this existing situation. Red-naped sapsuckers would indirectly be affected under the current grazing system because Coe Creek shows insufficient regeneration of aspen for future red-naped sapsucker habitat. Regeneration of aspen is important for the habitat of sapsuckers which rely on riparian trees such as aspen for nesting and foraging. Furthermore, removal of the Malta-5 fire rehabilitation fence could allow cattle more time in the creek and cause a decreasing trend away from proper functioning condition. The cow gulch exclosures effectively prevent cattle from affecting aspen regeneration in this drainage. However, the overall effect on red-naped sapsuckers is not known as they have yet to be recorded in these drainages. Short-eared owls could be affected because grazing may reduce the quality of the grasslands for nest concealment. However, no short-eared owl nests have been documented in the allotment and an uneven distribution of grazing (evident from trend data pattern mapping efforts) likely maintains some areas with light to no grazing occurring.

Cumulative Effects

Other actions which may affect northern harrier, short-eared owls, and red-naped sapsuckers within the RRCEAU include current and future grazing on other allotments, the Cotterel Wind Energy project, the Gateway West Transmission Line, other potential transmission lines, and the Burley Aspen Restoration project. Current and future grazing on other BLM and Forest Service

allotments is expected to have similar direct and indirect effects on these species as described above. However, the degree to which these effects occur is expected to vary depending on the amount of available habitat existing in the other allotments for these species and the condition of the habitat. The wind energy project could cause short term disturbance to northern harrier and short-eared owls during construction operations, then again periodically through maintenance activities. The wind energy project could also increase collision risk to these species though very few numbers of birds in general are expected to be killed through collision with the wind energy facilities. The Gateway West Transmission Line could also disturb these species during construction and would also become a collision risk which may occasionally kill birds. There may be two additional 500 kv transmission lines crossing the RRCEAU but these lines have not yet been sited so the potential effects of these lines are currently undetermined. The Burley aspen restoration project would remove juniper from both Coe and Cow Creeks and is expected to improve aspen stands thus improving habitat for red-naped sapsuckers.

Soils

Direct and Indirect Effects

Under the No Action - Alternative 1, the grazing permits would stay the same as when the Standard and Guidelines were completed on the North and South Cotterel Allotments. As stated in the preceding pages, the watershed indicators on both allotments showed that the Standards for Rangeland Health were being met. The No Action Alternative represents the current condition with no additional effects to soils. Areas where soils have been affected, such as along fence lines and at trough sites, would continue to be affected by livestock trampling.

Cumulative Effects

There would be no new cumulative effects on soils from the No Action Alternative because there are no changes from the current situation other than fence removal (fire rehabilitation fences) which might cause a temporary disturbance to the soil.

The EIS for the Cotterel Wind Energy Project discloses that Alternative C (the selected alternative) would add an estimated 203 acres of permanent soil disturbance in the area. The Gateway West transmission line project will cause some permanent and temporary soil disturbance during construction of the transmission line. Ongoing ground disturbance in the area, such as along roads, would continue to affect soils. There are no other reasonably foreseeable projects, in combination with the No Action Alternative 1, that would have cumulative effects on soils.

Special Status Wildlife Species

Direct and Indirect Effects

Under the current grazing system, cattle may directly affect greater sage grouse, ferruginous hawks, Brewer's sparrows, loggerhead shrikes and sage sparrows by occasionally disturbing or trampling nests, though this effect would be minimal because the shrikes and sparrows nest in shrubs and ferruginous hawks do not normally nest on the ground in this area. Also sage grouse nest in dense stands of sagebrush that cattle would tend to avoid. Deferring grazing from the mountains by grazing the seedings of the South Cotterel Allotment earlier (as occurs under current management) is expected to continue to promote the growth and persistence of native shrubs, grasses and forbs needed by sage grouse for seasonal food and concealment, especially during the nesting period. Likewise, this shift is expected to improve the habitat for the other sensitive sagebrush obligate species. However, removing the existing fire rehabilitation fences could allow livestock to graze the same plants continuously throughout the grazing season which may result in decreased plant vigor and recruitment. This could indirectly affect sage grouse and other sagebrush obligates by reducing the amount of cover and food available and reduce the overall quality of the habitat. Brown-headed cowbirds were raised as a potential issue because they can reduce the productivity of songbirds by dumping their eggs in the nests of hosts which raise the cowbird chicks as their own, often at the expense of their own chick. Brown-headed cowbirds have been reported and observed in Nibbs creek within the South Cotterel Allotment. Cattle have been implicated as the cause of increased cowbird parasitism because cowbirds predominantly feed around cattle where they occur in high concentrations and may decrease vegetation in riparian areas necessary for nest concealment by host species increasing their susceptibility to being parasitized. However, parasitism rates on Brewer's sparrow and sage sparrows are untypically low in similar habitats (Vander Haegen and Walker 1999). Also, while brown-headed cowbirds have been observed in riparian areas seeking hosts and breeding, observations of cattle herds within these allotments have yet to yield observations of cowbirds feeding around the cattle. Pygmy rabbits could be affected by cattle if burrows are accidentally crushed. This effect is not expected because cattle are not normally moving through the most dense sagebrush patches and because pygmy rabbits are apparently not abundant within the Cotterels. Western toads could be accidentally trampled by cattle and killed or injured. However, this has yet to have been observed and these toads are most often found within the Coe recreation site enclosure.

Cumulative Effects

Other actions which may affect BLM Sensitive species within the RRCEAU include grazing on other allotments, the Cotterel Wind Energy Project, the Gateway West Transmission Line, an existing transmission line which occurs on the east side of the project area, other potential future transmission lines, and State Highway 77. Current and future grazing on other BLM and Forest Service allotments is expected to have similar direct and indirect effects on these species as described above. However, the degree to which these effects occur is expected to vary depending on the amount of available habitat existing in the other allotments for these species and the condition of the habitat. The Cotterel Wind Energy Project has not been implemented so

the actual effects of this project could range from the extremes of temporary avoidance to extirpation of the local sage grouse population (BLM 2006). The Cotterel Wind Energy Project EIS also discloses direct, temporary impacts to Brewer's sparrows and ferruginous hawks during construction through disturbance or possibly displacement, and throughout operation from potential collisions. The increased collision risk to these species is not expected to be great because few numbers of birds in general are expected to be killed through collision with the wind energy facilities. The Gateway West Transmission Line could also affect BLM sensitive species by increasing predation risk (due to increased perch sites) at the northern edge of the Cotterels where unsuitable habitats (which are currently perennial grasslands resulting from the 2007 Guinn Canyon fire) may one day become suitable if vegetative succession occurs. The intensity of this effect is not expected to be great because of the current condition of the habitat and because the location proposed for the powerline is at the northern edge of the allotment away from the sage grouse leks which occur in the allotment. There may be two additional 500 kv transmission lines crossing the RRCEAU but these lines have not yet been sited so the potential effects of these lines are currently undetermined. Currently, a smaller capacity transmission line occurs on the east side of the Cotterels which may increase the predation risk to sage grouse or cause them to avoid potentially suitable habitats occurring underneath the line. State highway 77 which connects Declo and Malta fragments habitat between the Cotterels and Albion and vehicles traveling the highway in the early morning hours occasionally kill birds crossing between these areas.

Wetlands/ riparian zones including water quality and floodplains

Direct and Indirect Effects

South Cotterel Allotment

The Cow Gulch Enclosures which were built as a result of poor riparian area conditions within this allotment should ensure that this riparian area continues to progress toward proper functioning condition. The Nibbs riparian pasture fence was built prior to the rangeland health evaluation. This livestock enclosure should ensure this riparian area is trending toward proper functioning condition along Nibbs Creek. However, livestock are leaking back into this pasture (primarily through a gate which is frequently open) is slowing the potential progress which could be realized. The riparian pasture at Nibbs Creek and the enclosures along Cow Gulch should ensure the riparian areas along these creeks continue to progress towards proper functioning condition, thereby improving overall riparian condition and reducing sediment and improving water quality within the South Cotterel Allotment. As described in the Affected Environment section, Blacksmith creek is in static to downward trend and not progressing toward proper functioning condition while conditions along Coe Creek have improved to some degree with respect to woody species regeneration. Livestock lingering in pastures after scheduled dates and /or livestock entering pastures before or after scheduled dates or entering while a pasture is scheduled for rest is contributing to less than desirable conditions. The resulting impacts are inadequate vegetative cover and regeneration of woody species and excessive undesirable vegetation and bank trampling which is likely affecting achievement of Idaho water quality standards. The Malta-5 fire rehabilitation fence would be removed which would reduce the

ability to manage Coe Creek toward proper functioning condition. This fence has allowed for some progress to occur periodically.

North Cotterel Allotment

Currently, two of the four spring sites within this allotment are properly functioning (South Saunders and an unnamed spring). One of these sites is contained within an enclosure. Two of the spring sites were determined to be functioning-at-risk with unknown trend (Potter and North Saunders springs). As per the affected environment section, the enclosure at North Saunders Spring was enlarged, to encompass the majority of the spring site and remove livestock impacts, following the riparian area assessments. The removal of impacts at this site is expected to lead toward proper functioning condition. Under the No Action Alternative, livestock would still have access to the majority of the riparian area at Potter Spring and would be expected to continue affecting surface flow patterns and reducing vegetative cover at the site. Approximately 1/3 of the riparian area within the allotment would be affected by this and would not be expected to progress toward proper functioning condition.

Cumulative Effects

South Cotterel Allotment

Riparian area and water quality conditions would be expected to remain similar to current conditions.

Road densities are relatively low within the various watersheds of the South Cotterel Allotment although access roads do parallel and occasionally cross the streams. There is likely a small increment of sediment entering the stream systems from road runoff and crossings. Dispersed recreation does occur within the area as well although it is widely dispersed and infrequent and adds little if any additional sediment or nutrients to the stream systems. The headwaters of Nibbs, Coe, Cow and Blacksmith Creeks are contained within the allotment and there are no additional inputs into these systems from upstream. The Burley BLM has recently approved a project (Burley Aspen Restoration) designed to improve aspen stands which includes aspen along portions of Coe and Cow creeks within the South Cotterel Allotment and around Mud Spring (currently a dry spring) within the North Cotterel Allotment. The project would remove juniper trees growing within the aspen or adjacent to it in order to reduce competition and allow for more aspen regeneration. This project is expected to result in improved riparian vegetative conditions and therefore will enhance any efforts to restore these riparian areas. The increments described above would be of insufficient magnitude to significantly add to the direct and indirect effects described above.

North Cotterel Allotment:

There are no known roads or dispersed recreation sites adding any sediment or nutrients to the four spring sites within the North Cotterel Allotment. Therefore, there are no incremental effects to add to the direct and indirect effects described above.

Vegetation Types, Communities, Rangeland Resources Including Invasive, Non-native species

Direct and Indirect Effects

Under the No Action Alternative, the baseline of vegetation conditions would continue. There are no proposed changes in livestock numbers or season of use. The traditional rotation on South Cotterel would be followed using a rest rotation of the crested wheatgrass seedings in the lower elevations during spring and fall. The mountain pastures would be grazed under a rest rotation during the summer months. North Cotterel would be managed as one pasture using a season-long grazing treatment. North Cotterel Allotment would continue to be stocked at an average of 42% of permitted active AUMs while South Cotterel would utilize an average of 92% of permitted active AUMS. The smaller number of AUMs utilized on North Cotterel would have the least frequency of plants being grazed. However, the range of AUMs utilized could vary from the current average of 42% (600 AUMS) to 100% of the active permitted AUMs (1432 AUMS). Utilizing the total available AUMs will result in increased frequency of plants being grazed. Potentially plants could lose vigor but because grazing is managed under proper use standards, the utilization standards would dictate the actual number of AUMs that could be utilized.

Renewing the 10-year grazing permits at current levels of active AUMs in combination with utilization guidance will maintain the Standards of Rangeland Health, which are being met on both allotments, for vegetation. The temporary loss of vegetation at these levels will be sustainable.

Under this alternative, approximately 3 miles of ES & R fences (Horse Butte, Guinn Canyon, and Malta-5 fire fences) would be removed after their effectiveness was determined to be complete through fire rehabilitation monitoring. Also, the riparian pasture of Coe pasture would no longer exist as was the situation prior to the fire.

The upland pastures of both allotments would have less management options under this alternative due to a smaller number of pastures and may result in plants with decreased vigor and recruitment. Livestock would have the opportunity to graze the same plants continuously throughout the grazing season.

Trailing would continue to occur on a case by case basis as authorized by the BLM. Because most trailing occurs on roads and is short term (1-2 days), the effect to vegetation would be similar to the permitted grazing in each pasture.

Cumulative Effects

Projects in the foreseeable future on the Cotterels and surrounding areas includes the Cotterel Wind Energy Project, fuels reduction proposals (Conner Wildland Urban Interface (WUI)- Phase 2), Gateway West transmission line, a gravel pit expansion, and the Burley aspen restoration project.

There would be no increases or decreases in permitted active AUMS resulting from the implementation of any of these projects. However, portions of the Conner WUI Phase 2 project may be temporarily excluded from livestock grazing as necessary if seeding occurs. Junipers would be removed and the herbaceous understory would increase from current conditions.

Juniper would be removed as part of the Burley aspen restoration project in the Cotterel Allotments as well as in the Jim Sage Allotments). Herbaceous vegetation would be removed during the construction of the Gateway West transmission lines (north end of North Cotterel Allotment) and the gravel pit expansion (north end of Jim Sage Allotment). The areas of herbaceous vegetation removed are small and unconnected.

Vegetation types that could be affected by the construction of the wind energy project include: juniper; mountain mahogany; big, low, and mountain sagebrush; and grasslands. Impacts to the vegetation from the wind energy project would initially impact approximately 337 to 350 acres (3%) of rangeland currently available. Following construction, reclamation and revegetation efforts would restore forage availability on 147 acres (47% of the impacted area). Restoration of disturbed vegetation to pre-construction conditions is expected to take approximately three to five years. Permanent impacts to rangeland vegetation would result in a loss of forage on approximately 203 acres (BLM 2006).

Because the wind energy project will only affect 3% of the current rangeland available, the cumulative effects of renewing the permits under the No Action Alternative should not be measurably different than the current baseline. Both allotments are meeting vegetation standards and will continue to be monitored for proper utilization levels.

Future grazing permit renewals in the RRCEAU will be aimed at either maintaining vegetative conditions where those conditions are found to be meeting the Standards for Rangeland Health or improve resource conditions where Rangeland Health Standards are found to be deficient and deficiencies are a result of current livestock management.

Wildlife Species (Non-sensitive)

Direct and Indirect Effects

Foraging by cattle within the North and South Cotterel Allotments is expected to remove some vegetation that might otherwise be available for mule deer. However, monitoring of the current grazing system shows that moderate utilization levels are leaving adequate residual vegetation for mule deer during the winter. The removal of the temporary rehabilitation fences from the allotment would reduce some of the collision and entanglement hazards currently existing within the allotments for mule deer. However, these fences have been up for some time and mule deer have likely already adjusted to their presence. Furthermore, there have been no reports of entanglement or injury resulting from collision with these fences. So, any benefit from the removal of these fences is expected to be minimal.

Cumulative Effects

Other actions which may affect mule deer within the RRCEAU include current and future grazing (and associated livestock developments such as fences) on other BLM and Forest Service grazing allotments, the Cotterel Wind Energy project, the Gateway West transmission line, other potential future transmission lines and the Burley aspen restoration project. Current and future grazing on other BLM and Forest Service allotments is expected to have similar direct and indirect effects on this species as described above. However, the degree to which these effects occur is expected to vary depending on the amount of available habitat existing in the other allotments for these species and the condition of the habitat. The Cotterel Wind Energy project EIS states that mule deer would be displaced during construction and operations and the project would result in the direct loss of 105 acres of winter habitat which amounts to approximately 2% of the winter habitat available in the project area. The Gateway West transmission line is expected to cause similar disturbance/displacement during construction and operations but no measureable habitat would be lost and activities would be seasonally restricted during the critical winter period. There may be two additional 500 kv transmission lines crossing the RRCEAU but these lines have not yet been sited so the potential effects of these lines are currently undetermined. The Burley aspen restoration project includes hand-cutting juniper at the Coe recreation site, Coe Creek, Mud spring and Cow Gulch (creek). This project is expected to improve habitat for mule deer which use the aspen for forage, cover, bedding, and fawning.

Recreation

Direct and Indirect Effects

Under the No Action Alternative, grazing would continue under the current scenario. Recreation experiences such as horseback riding, mountain biking or Off Highway Vehicle (OHV) use may be temporarily interrupted by gates that need to be open and closed to gain access to grazed

areas. The No Action Alternative includes the removal of three temporary fire rehabilitation fences and would eliminate two gates.

Cumulative Effects

There are no known cumulative effects from the No Action Alternative on recreation because there are no new recreation proposals planned around the Cotterel Allotments.

PROPOSED ACTION

Migratory Birds

Direct and Indirect Effects

Under the proposed action, cattle may still directly affect northern harrier or short-eared owls by occasionally disturbing or trampling nests. Short-eared owls could be affected because grazing may reduce the quality of the grasslands for nest concealment. Allowing operators more flexibility by using greater numbers for shorter time and extending the season to earlier start dates and later ending dates as proposed is expected to increase the variability of this effect whereby use shifting to later in the year (such as is proposed in the BYU use areas) when birds would no longer be nesting, and plants are dormant, would result in reduced disturbance and use. Use concentrated in greater numbers during the peak migratory bird nesting period would result in increased disturbance. In either case, this effect would be minimal because the nesting density of these species would not be great and there are no known nests of either of these species in the allotment. Also, utilization levels would not exceed 55% so suitable nesting habitat is expected to be available. The summit division fence is expected to increase the defoliation frequency of native plants in the new pasture and reduce plant vigor in this small pasture. This could make portions of the new pasture unsuitable for short-eared owls for nesting. The new Nibbs pipeline and trough would create a new area of concentrated use around the trough that would not be suitable for northern harrier or short-eared owls for nesting but the resulting better distribution of grazing may make other portions of the South Cotterel allotment improve for these species.

In the event that a longer season is utilized (based on flexibility in numbers and time), opportunity for riparian vegetation to recover (re-grow) after livestock use would be reduced by up to 1 month in Coe Creek which has sufficient older aspen cover suitable for red-naped sapsucker. The reduced opportunity for riparian vegetation to re-grow would likely result in reduced riparian area plant health and movement away from proper functioning condition (depending on the length in season change for any particular pasture or year). Consequently, red-naped sapsucker habitat would be reduced in quality if aspen regeneration is affected. Similar to the No Action Alternative, the removal of the Malta-5 fire rehabilitation fence would also reduce red-naped sapsucker habitat.

Cumulative Effects

Other actions affecting migratory birds under the proposed action are the same as the no action. The cumulative effects of the proposed action are expected to be more variable based on the flexibility allowed in grazing management.

Soils

Direct and Indirect Effects

Under the Proposed Action, there are no increases or decreases in permitted active AUMs so the grazing effects would be the similar to the current situation. However, the Proposed Action includes projects that would disturb soils. Mud Reservoir on North Cotterel is currently dry. The project would disturb the soils around the spring when redevelopment occurs. The Nibbs pipeline would be maintained under the Proposed Action and an extension of approximately 500 additional feet added. Pipeline maintenance (pipe replacement) of approximately 3 miles of existing pipeline would occur in the existing pipeline footprint but the extension would be a new disturbance. A new trough would be added causing an area of soil disturbance by livestock. Also, a cattleguard would be installed at the top of Nibbs Canyon. The location is remote and would require excavation on site. The addition of a pasture division fence in Summit Pasture would disturb soils during fence construction. A trail from livestock traffic would be established as cattle walk the new fence. Developing the unnamed spring in the south fork of Blacksmith Creek and installing a trough in lower Blacksmith Creek would disturb soils. Most of these effects would be short term and would occur during the construction phase or shortly thereafter. At new trough sites, livestock trampling of soils would occur every year while livestock are grazing. This would result in long-term compaction of soils and loss of vegetative cover directly around the trough areas.

Cumulative Effects

Projects in the foreseeable future on the Cotterels and surrounding areas includes the Cotterel Wind Energy Project, fuels reduction proposals (Conner Wildland Urban Interface (WUI) - Phase 2), Gateway West transmission line, a gravel pit expansion, and the Burley aspen restoration project.

All of these projects would result in some disturbance to soils. Some disturbance would be temporary such as during implementation of the fuels reduction proposals and the Burley aspen restoration project. The EIS for the Cotterel Wind Energy Project discloses that both temporary and permanent effects to soils would occur. These effects include displacement, wind erosion, compaction, and loss of vegetative cover. If constructed, the Gateway West transmission line would result in both temporary and permanent effects on soils similar to the Cotterel Wind Energy Project. The gravel pit expansion would also disturb soils by removing vegetative cover and displacing topsoil. The disturbances from the Proposed Action are relatively small in scale

or are temporary disturbances affecting less than ten acres of soil. Currently, the watershed indicators for rangeland health have been meeting standards on both allotments.

Special Status Wildlife Species

Direct and Indirect Effects

Under the current grazing system, cattle may directly affect greater sage grouse, ferruginous hawks, Brewer's sparrows, loggerhead shrikes and sage sparrows by occasionally disturbing or trampling nests, though this effect would be minimal because the shrikes and sparrows nest in shrubs and ferruginous hawks do not normally nest on the ground in this area. Also sage grouse nest in dense stands of sagebrush that cattle would tend to avoid. Deferring grazing from the mountains by grazing the seedings of the South Cotterel Allotment earlier (as occurs under current management) is expected to continue to promote the growth and persistence of native shrubs, grasses, and forbs needed by sage grouse for seasonal food and concealment, especially during the nesting period. Likewise, this shift is expected to improve the habitat for the other sensitive sagebrush obligate species. However, removing the existing rehabilitation fences could allow livestock to graze the same plants continuously throughout the grazing season which may result in decreased plant vigor and recruitment. This could indirectly affect sage grouse and other sagebrush obligates by reducing the amount of cover and food available and reduce the overall quality of the habitat. Brown-headed cowbirds were raised as a potential issue because they can reduce the productivity of songbirds by dumping their eggs in the nests of hosts which raise the cowbird chicks as their own, often at the expense of their own chick. Brown-headed cowbirds have been reported and observed in Nibbs creek within the South Cotterel Allotment. Cattle have been implicated as the cause of increased cowbird parasitism because cowbirds predominantly feed around cattle where they occur in high concentrations and may decrease vegetation in riparian areas necessary for nest concealment by host species increasing their susceptibility to being parasitized. However, parasitism rates on Brewer's sparrow and sage sparrows are untypically low in similar habitats (Vander Haegen and Walker 1999). Also, while brown-headed cowbirds have been observed in riparian areas seeking hosts and breeding, observations of cattle herds within these allotments have yet to yield observations of cowbirds feeding around the cattle. Pygmy rabbits could be affected by cattle if burrows are accidentally crushed. This effect is not expected because cattle are not normally moving through the most dense sagebrush patches and because pygmy rabbits are apparently not abundant within the Cotterels. Western toads could be accidentally trampled by cattle and killed or injured. However, this has yet to have been observed and these toads are most often found within the Coe recreation site enclosure.

Cumulative Effects

Other actions affecting BLM Sensitive species under the proposed action are the same as the no action. The cumulative effects of the proposed action are expected to be more variable based on the flexibility allowed in grazing management, but are not expected to cause any adverse harm to BLM Sensitive species. Furthermore, the effects of this action are not expected to increase the

chances that sage grouse become extirpated as a result of the implementation of the Cotterel Wind Energy Project.

Wetlands/ riparian zones including water quality and floodplains

Direct and Indirect Effects

South Cotterel Allotment:

Under the Proposed Action there would be the addition of a cattleguard in the Nibbs riparian pasture which is expected to reduce unauthorized livestock from entering this pasture before or after scheduled use which would help quicken progress toward proper functioning condition. The Nibbs pipeline extension would allow livestock to utilize upland areas for a longer period of time which would result in less riparian area use throughout the allotment (the pasture where the Nibbs pipeline extension would occur contains one riparian area which is already excluded from livestock). The trough proposed to be developed at the head of Blacksmith Creek would result in digging up approximately 900 square feet of riparian and adjacent upland vegetation in order to install a head box and trough in Alternative 2. The trough development, by itself, would not be expected to result in any more or less livestock use along Blacksmith Creek. The extended season of use could result in fewer livestock being grazed for up to approximately 2.5 months longer than under the No Action Alternative although the AUM's would be the same as the current permit. In the event that this longer season was utilized, opportunity for riparian vegetation to recover (regrow) after livestock use would be reduced by up to 1 month in each of the mountain pastures containing Blacksmith, Coe and Nibbs Creeks. The reduced opportunity for riparian vegetation to regrow would likely result in reduced riparian area plant health and movement away from proper functioning condition (depending on the length in season change for any particular pasture or year). Also, the Malta-5 fire rehabilitation fence would be removed which would reduce the ability to manage Coe Creek toward proper functioning condition. Overall, the direct and indirect effects are expected to be somewhat similar to the No Action Alternative with the exception of Nibbs Creek which, although currently improving, could be expected to reach proper functioning condition sooner so long as season of use was not extended by more than approximately one week.

North Cotterel Allotment:

Effects to the riparian resource would be the same as under the No Action Alternative. Portions of Potter Spring would continue to be in less than proper functioning condition while the other springs would remain in proper functioning condition or progress towards it.

Cumulative Effects

Under the Proposed Action, cumulative effects are expected to be the same as under the No Action Alternative.

Vegetation Types, Communities, Rangeland Resources Including Invasive, Non-native species

Direct and Indirect Effects

Under the Proposed Action, there would be no decreases or increases in permitted active AUMs. In the South Cotterel Allotment, the grazing season could be lengthened to include less numbers for a greater time period. Under the “lowest numbers, longest season” scenario, the grazing in the mountain pastures could continue into November if AUMs were used proportionally (approximately 50%, 50%) between the seedings and mountain pastures. Livestock would have access to the same areas of grazing for approximately 2 months longer. The frequency of defoliation could increase for an individual plant. However, the longer season would occur when the plants are dormant. Defoliation at this time results in removal of residual biomass but does not remove growing plant biomass.

Under the “highest numbers, shorter season” scenario, the grazing season would remain approximately the same as the current situation except there would be less cattle in the spring (approximately 100 head) and more cattle on the mountain (approximately 30 head) during the summer months. The grazing season on the mountain would be approximately 105 days. The vegetation in the seedings is expected to improve in vigor if this scenario was applied because the frequency of defoliation would decrease in the spring with lower cattle numbers at that time.

The proposed Summit Pasture division fence would create a small pasture that would be grazed in the April/May timeframe using Summit Creek as a water source. The creation of the division fence would concentrate livestock in a small pasture (approximately 250 acres) for a short timeframe. The pasture would be rested in sequence with the seedings grazed in the spring and fall. Water availability would require that the pasture be used mainly in the spring. The native plants in that pasture would be grazed before seedripeness. The concentration of livestock in that small area would increase the defoliation frequency of native plants. This could result in lack of vigor over time.

On the North Cotterel Allotment, the proposed change in season in the BYU use areas is a change of season from summer-long use to fall use. This change would benefit vegetation since it will grow and reseed each year before grazing occurs. The proposed change of season, for the portions of North Cotterel Allotment which are located at higher elevations, would extend the grazing season by 75 days. These dates have been permitted in the past under grazing permits that allowed for that season but with smaller numbers. That permit has now been transferred to another permittee who has applied for the changes in the Proposed Action.

The proposed increase in season is expected to result in an increase of defoliation of individual plants even though the overall grazing level is ultimately determined through utilization levels. The adjustments to season of grazing would be monitored by the BLM and, where necessary, could be adjusted back to shorter season if warranted by monitoring information. If utilization at key areas is continually exceeded or trend photo plots show decline, the season of use would be shortened. Deferral of the north and south end pastures would happen through water availability because the division fences (fire rehabilitation fences) would be removed.

Pipeline maintenance (approximately 3 miles) and a pipeline extension project of 500 feet of pipe and the addition of one new trough on Nibbs Pipeline are proposed. The addition of a new trough for livestock watering would increase the risk of introduction and spread of invasive plants in the project area. Currently, the vegetation in the proposed area is annual invasives. Grazing use would shift to include more areas around the trough, distributing cattle away from the Rice Canyon area itself. Native vegetation that has received lighter use in the past may now receive moderate grazing. With proper use standards applied, the vigor of the native plants should not decrease. Vegetation disturbance along the existing pipeline and extension area would occur during construction and would remain sparsely vegetated for several years. These effects can be lessened through reseeding of disturbed areas and monitoring for invasive species. Approximately 50 junipers would be removed with the pipeline work.

A cattleguard would be installed at the top of Nibbs Canyon. The excavation for the cattleguard itself would not disturb vegetation because the cattleguard would be in the road. However, because it is in a relatively remote site, more fill dirt would be taken on site instead of hauled in and there would be a temporary loss of vegetation surrounding the area of the cattleguard. This disturbance area would be monitored to prevent the invasion of unwanted vegetation species.

Another proposal is the re-development of the spring at Mud Reservoir on North Cotterel. The reservoir currently exists but spring re-development may cause a temporary loss of vegetation through disturbance. The re-development of the spring would allow water to accumulate in the reservoir. The increase of water available to surrounding vegetation could increase plant biomass and species diversity in the immediate project area. Livestock would utilize this vegetation as well as the reservoir itself. The concentration of livestock in this area would increase the risk of invasive plant establishment. The reservoir is in an area currently treated for Scotch thistle and would continue to be monitored for weed treatments.

Under the proposed action, the unnamed spring in the south fork of Blacksmith Creek would be developed and a trough would be installed in the upland vegetation. The current vegetation where the trough would be located is native range. This vegetation would be disturbed during installation. As grazing occurred, the native vegetation directly around the trough location for approximately 100 feet would be replaced with annual species due to the continual, intensive disturbance that would occur from livestock watering. The native vegetation around the spring itself would receive less use. The same effects are predicted in lower Blacksmith Creek, if a second trough is installed outside the enclosure proposed in Alternative 2. The vegetation directly around the trough (approximately 100 feet based on past observations) would be converted from native range to annual vegetation.

Trailing would continue to occur on a case-by-case basis as authorized by the BLM. Because most trailing occurs on roads and is short term (1-2 days), the effect to vegetation would be similar to the permitted grazing in each pasture.

Renewing the 10-year grazing permits at current levels of active AUMs in combination with utilization guidance will maintain the Standards of Rangeland Health, which are being met on

both allotments, for vegetation. The temporary loss of vegetation at these levels will be sustainable.

Cumulative Effects

Projects in the foreseeable future on the Cotterels and surrounding areas includes the Cotterel Wind Energy Project, fuels reduction proposals (Conner Wildland Urban Interface (WUI)- Phase 2), Gateway West transmission line, a gravel pit expansion, and the Burley aspen restoration project.

There are no increases or decreases in permitted active AUMS associated with any of these projects. However, portions of the Conner WUI Phase 2 project may be temporarily excluded from livestock grazing as necessary if seeding occurs.

Vegetation (juniper) would be removed in the Conner WUI project (Conner Creek area in the south end of South Cotterel Allotment) and the Burley aspen restoration project as well (Jim Sage, North and South Cotterel Allotments). Herbaceous vegetation would be lost in the construction of the Gateway West transmission lines (north end of North Cotterel Allotment) and the gravel pit expansion (north end of Jim Sage Allotment). The areas of herbaceous vegetation removed are small and unconnected.

Vegetation types that could be affected by the construction of the wind energy project include: juniper; mountain mahogany; big, low, and mountain sagebrush; and grasslands. Impacts to the vegetation from the wind energy project would initially impact approximately 337 to 350 acres (3%) of rangeland. Following construction, reclamation and revegetation efforts would restore forage availability on 147 acres. Restoration of disturbed vegetation to pre-construction conditions is expected to take approximately 3 to 5 years. Permanent impacts to rangeland vegetation would result in a loss of forage on approximately 203 acres (BLM 2006).

There vegetation removed from grazing is at a sustainable level. The cumulative effects of vegetation removed from the proposed action and reasonably foreseeable projects are vegetation removal that is either small in size compared to the amount of vegetation in the cumulative effects analysis area or temporary in nature until the vegetation regrows.

Future grazing permit renewals in the RRCEAU will be aimed at either maintaining vegetative conditions where those conditions are found to be meeting the Standards for Rangeland Health or improve resource conditions where Rangeland Health Standards are found to be deficient and deficiencies are a result of current livestock management.

Wildlife Species (Non-sensitive)

Direct and Indirect Effects

Continued grazing under the proposed action is expected to have similar effects to mule deer as the No Action Alternative. The proposed action to add fence in the Summit pasture could cause a

minimal disturbance/displacement of mule deer during construction and would add a new potential collision or entanglement hazard. The potential for injury to mule deer would be minimized through construction of a fence to wildlife friendly specifications. The effect of removal of the temporary rehabilitation fences would have the same effect as described in the environmental consequences of the no-action alternative. The new trough located in the Nibbs pasture would provide a new source of water available for mule deer. However, vegetation immediately surrounding the new trough is expected to be reduced in height and cover so little forage would be available in this small area of approximately 1 acre.

Cumulative Effects

Other effects to mule deer in the project area are the same as described under the no-action alternative

Recreation

Direct and Indirect Effects

Under the Proposed Action alternative, the grazing season could be extended for 75 days. Recreation experiences such as horseback riding, mountain biking or Off Highway Vehicle (OHV) use may be temporarily interrupted by gates that need to be open and closed to gain access to grazed areas. The Proposed Action alternative includes the removal of three temporary fire rehabilitation fences and would eliminate two gates. Three new troughs, a pipeline extension, one cattleguard, one spring redevelopment and one new division fence are projects proposed under this action. A new gate would be constructed and one gate would be eliminated from Nibbs Canyon road. Three new troughs would provide water for horses ridden in those areas.

Cumulative Effects

There are no known cumulative effects from the Proposed Action alternative on recreation because there are no new recreation proposals planned around the Cotterel Allotments.

ALTERNATIVE 2

Migratory Birds

Direct and Indirect Effects

Cattle may directly affect northern harrier or short-eared owls by occasionally disturbing or trampling nests. Short-eared owls could be affected because grazing may reduce the quality of the grasslands for nest concealment. Allowing operators two weeks flexibility on start dates is expected to minimally increase the time grazing occurred during nesting which subsequently could slightly increase the potential for disturbance. Conversely, allowing operators to graze cattle later in the year would reduce the potential for disturbance. In either case, this effect would be minimal because the nesting density of these species would not be great and there are no known nests of either of these species in the allotment. Also, grazing earlier could reduce the prevalence of cheat-grass thus indirectly improving the condition of perennial grass stands important for these grassland nesting species.

Red-naped sapsuckers could be indirectly affected because employing adaptive management is expected to result in a positive trend in riparian health that would continue to cause improvement of the habitat of sapsuckers which rely on riparian trees such as aspen for nesting and foraging. Furthermore, the continued existence of the Coe riparian pasture fence would reduce the time cattle use the creek would further the trend to be moving towards proper functioning condition, thus benefiting sapsuckers.

Cumulative Effects

Other actions affecting migratory birds under Alternative 2 are the same as the no action. The cumulative effects of Alternative 2 are expected to cause the most overall improvement for migratory birds through improved upland and riparian vegetation, and are not expected to cause any adverse harm to migratory birds.

Soils

Direct and Indirect Effects

Alternative 2 includes the proposal to construct one new division fence (approximately 1.25 miles) and to adopt three fire rehabilitation fences (approximately 3 miles of existing fences) permanently into the grazing rotation. New fence construction could cause temporary soil disturbance. Livestock are expected to create a new trail along the proposed division fence, if implemented.

Cumulative Effects

Projects in the foreseeable future in the surrounding areas include the Cotterel Wind Energy Project, fuels reduction proposals (Conner Wildland Urban Interface (WUI) - Phase 2), Gateway West transmission line, a gravel pit expansion, and the Burley aspen restoration project.

All of these projects would result in some disturbance to soils. Some disturbance would be temporary such as during implementation of the fuels reduction proposals and the Burley aspen restoration project. The EIS for the Cotterel Wind Energy Project discloses that both temporary and permanent effects to soils would occur. These effects include displacement, wind erosion, compaction, and loss of vegetative cover. If constructed, the Gateway West transmission line would result in both temporary and permanent effects on soils similar to the Cotterel Wind Energy Project. The gravel pit expansion would also disturb soils by removing vegetative cover and displacing topsoil. The disturbances from Alternative 2 are relatively small in scale or are temporary disturbances affecting less than ten acres of soil. Currently, the watershed indicators for rangeland health have been meeting standards on both allotments.

Special Status Wildlife Species

Direct and Indirect Effects

Under Alternative 2, cattle may directly affect greater sage grouse, ferruginous hawks, Brewer's sparrows, loggerhead and sage sparrows by occasionally disturbing or trampling nests. Allowing operators 2 weeks flexibility on start dates is expected to minimally increase the time grazing occurred during nesting which subsequently could slightly increase the potential for disturbance. Conversely, allowing operators to graze cattle later in the year would reduce the potential for disturbance. In either case, this effect would be minimal because the shrikes and sparrows nest in shrubs and ferruginous hawks do not normally nest on the ground in this area. Also, sage grouse nest in dense stands of sagebrush that cattle tend to avoid. Grazing earlier could reduce the prevalence of cheat-grass thus indirectly improving the condition of perennial grass stands important for these grassland nesting species. Deferring grazing from the mountains to the seedings of the South Cotterel Allotment earlier is expected to promote the growth and persistence of native shrubs, grasses, and forbs needed by sage grouse for seasonal food and concealment, especially during the nesting period. Likewise, this shift is expected to improve the habitat for the other sensitive sagebrush obligate species. Occasionally grazing the mountain pastures earlier might introduce cattle into nesting habitat earlier which may increase the potential for disturbance of these ground nesting species. However, doing so is also expected to help maintain seedings which are experiencing increasing sagebrush cover. This would indirectly improve conditions for sage grouse for the long term because it would improve the overall sustainability of the allotment system. Adapting the existing rehabilitation fences is expected to prevent livestock from grazing the same plants continuously throughout the grazing season which may result in increased plant vigor and recruitment. This is expected to indirectly affect sage grouse and other sagebrush obligates by increasing the amount of cover and food available and improve the overall quality of the habitat. Brown-headed cowbirds were raised as a potential issue because they can reduce the productivity of songbirds by dumping their eggs in

the nests of hosts which raise the cowbird chicks as their own, often at the expense of their own chick. Brown-headed cowbirds have been reported and observed in Nibbs creek within the South Cotterel Allotment. Cattle have been implicated as the cause of increased cowbird parasitism because cowbirds predominantly feed around cattle where they occur in high concentrations and may decrease vegetation in riparian areas necessary for nest concealment by host species increasing their susceptibility to being parasitized. However, parasitism rates on Brewer's sparrow and sage sparrows are untypically low in similar habitats (Vander Haegen and Walker 1999). Also, while brown-headed cowbirds have been observed in riparian areas seeking hosts and breeding, observations of cattle herds within these allotments have yet to yield observations of cattle supplemented foraging by cowbirds. Improving riparian conditions as expected from this alternative is expected to further reduce parasitism by cowbirds. Pygmy rabbits could be affected by cattle if burrows are accidentally crushed. This effect is not expected because cattle are not normally moving through the most dense sagebrush patches and because pygmy rabbits are apparently not abundant within the Cotterels. Western toads could be accidentally trampled by cattle and killed or injured. However, this has yet to have been observed and these toads are most often found within the Coe recreation site enclosure.

Cumulative Effects

Other actions affecting BLM Sensitive species under this alternative are the same as the no action. The cumulative effects of Alternative 2 are expected to cause the most overall improvement for BLM sensitive species through improved upland and riparian vegetation, and are not expected to cause any adverse harm.

Wetlands/ riparian zones including water quality and floodplains

Direct and Indirect Effects

South Cotterel Allotment:

Direct and indirect effects would be the same as the no-action and Proposed Action with regards to Cow Gulch. Nibbs Creek would be expected to continue making progress towards proper functioning condition potentially quicker than the No Action and Proposed Action alternatives due to the addition of end point indicators and the option to use triggers as described later in this section. This alternative does not propose to install a cattleguard in the Nibbs pasture so livestock control would be reduced and livestock management would be more difficult. The addition of a livestock enclosure at Blacksmith Creek would allow this riparian area and water quality to improve rapidly due to improved vegetative cover and the removal of livestock caused streambank trampling and trailing. The Malta-5 fire rehabilitation fence would be made permanent under this alternative which would allow for more regulated livestock grazing in the Coe Creek riparian area. Currently this fence is being utilized to lessen livestock grazing use along this creek. As described earlier, Coe Creek currently has no better than static trend even with the use of the Malta 5 fence due to livestock lingering in this pasture after scheduled dates and /or livestock entering the pasture before or after scheduled dates or entering while rest is

prescribed. The resulting impacts are inadequate vegetative cover and regeneration of woody species and excessive undesirable vegetation and bank trampling over the long term which is likely affecting achievement of Idaho water quality standards. The livestock management problems are affecting these creeks over the long term but on any given year the scheduled rest or timing and duration of use occurs as scheduled. Under this alternative, end point indicators (50% incidence of use on woody riparian species and/or 4 inch stubble height on key hydric species) would be employed which are measurable standards that would be used to monitor yearly use and allow for implementation of the adaptive management strategy. These end point indicators are expected to allow for riparian area and resulting water quality attainment of proper functioning condition on Coe Creek. Triggers (utilization levels and stubble height) that initiate livestock movement off of a riparian area may be established after the first year of use if annual end point indicators are not met under the description of this alternative. Trend would continue to be monitored and endpoint indicators/triggers would be adjusted as necessary if conditions do not improve. Scheduled use within the Coe Creek riparian area would also be governed by the Idaho Guidelines for Livestock Grazing Management and the Grazing Response Index whereby sufficient deferment and or rest would occur in order to allow for vegetative recovery and improvement and progress towards proper functioning condition.

North Cotterel Allotment:

Direct and indirect effects are expected to be the same as the No Action and the Proposed Action with the exception of the riparian area at Potter Spring. Under Alternative 2, an enclosure would be built to exclude livestock from all of the riparian area at Potter Spring as opposed to what is currently excluded. This would be expected to improve the overall surface flow pattern and vegetative cover at this site and eliminate any associated water quality impairment.

Cumulative Effects

Although direct and indirect effects are not the same as the No Action Alternative, cumulative effects of this alternative are expected to be the same as the No Action Alternative. The potential small amount of sediment and nutrients entering streams from roads and dispersed recreation would be of insufficient magnitude to measurably add to the direct and indirect effects of this alternative or curtail the achievement of water quality and riparian area standards.

The effects of improving riparian area condition within the South Cotterel Allotment, combined with other BLM allotments in this vicinity, is expected to lead to overall improved riparian vegetation and water quality within this portion of south-central Idaho. The improvement in streamside cover would lead to reduced erosion, improved filtration of sediment, and improved streamside shading, all of which are integral to improving water quality.

The Burley BLM has recently approved a project (Burley Aspen Restoration) designed to improve aspen stands which includes aspen along portions of Coe and Cow creeks within the South Cotterel Allotment and around Mud Spring (currently a dry spring) within the North Cotterel Allotment. The project would remove juniper trees growing within the aspen or adjacent to it in order to reduce competition and allow for more aspen regeneration. This project is expected to result in improved riparian vegetative conditions and enhance any efforts to restore these riparian areas.

The increments described above, when added to that from Alternative 2, would not be of sufficient magnitude to curtail achievement of water quality and riparian area standards.

Vegetation Types, Communities, Rangeland Resources Including Invasive, Non-native species

Direct and Indirect Effects

Under Alternative 2, the vegetation would be grazed at different times than the grazing rotation of the past and use adaptive management to manage pastures. Using the Grazing Response Index, pasture rotations would be developed using season of use, frequency of grazing, and opportunity of regrowth as factors. The mountain pastures could be deferred or rested depending on the precipitation and climatic factors of the previous growing season. The annual rotations would also be dependent on the success of the annual indicators from the previous grazing season. For example, if pasture moves were made and the proper use standard was exceeded when measures at the end of the growing season, the next grazing season could be shortened to compensate for the amount of grazing made in any one pasture.

This flexibility would ensure plants are given a variety of grazing treatments from spring use one year to summer use the following year. These treatments would allow plants to reach different phenological stages, before grazing each year, improving vigor and recruitment opportunities.

The dates of the grazing season would be extended by 14 days on either end of the existing dates on each individual permit. On years when grazing is earlier, vegetation would be impacted by earlier grazing. Cheatgrass, an annual grass, grazed before seed reaches the dough stage, can be suppressed. “Defoliation of annual grasses generally suppresses their plant yield on a site, but it may not reduce the total number of annual grass plants.” (Mosley and Roselle, 2006.) Perennial grasses, which typically start growing later than annuals, could benefit from the early grazing of cheatgrass since competition is reduced. However, if the perennial grasses were grazed too soon in the growth stage, the amount of potential growth for that growing season could be substantially reduced. Selection of an on date under this alternative would be based on range readiness each year and decided by the BLM. It would be the same for all permittees within each allotment. An option to leave the allotment two weeks later would exist for any permittee running at smaller numbers so AUMs were not exceeded. The vegetation would be entering dormancy at that time of year and would not be impacted if utilization levels were within the proper use level.

This alternative would retain three rehabilitation fences on a permanent basis. In 2000, the Malta-5 fire burned an area of the Coe pasture containing Coe Creek (South Cotterel Allotment). This fence has been used as a temporary protection fence and now would be made a permanent fence, creating a permanent riparian pasture. Making this fence a permanent part of the rotation system would ensure plant vigor increases by allowing for more control of livestock in and outside of the riparian area. In 2002, the Horse Butte fence was constructed after a wildfire on North Cotterel. In 2008, a protective fence, for the rehabilitation effort of the Guinn Canyon fire,

connected with the Horse Butte fence and created a pasture division fence for the North Cotterel Allotment. Keeping these fences permanently allows for the management of the allotment by alternately deferring each pasture in the spring. Grazing could start in the north pasture one year and the south pasture the following year. This would eliminate the season-long, one pasture grazing that has occurred without the use of these fences. The result would be improved health of the vegetation because the frequency of defoliation would be reduced.

A new division fence (approximately 1.25 miles) would be constructed under Alternative 2. The fence would divide Nibbs pasture into a third section. In 2007, the Conner fire burned the south central portion of Nibbs pasture. The area was rehabilitated using a native-like seed mix. The surrounding area is a crested wheatgrass seeding. To prevent livestock from congregating on the new seeding, a division fence would control livestock use in this pasture and manage the majority of use on the crested wheatgrass seeding.

One new enclosure (Blacksmith Creek) would be constructed and an existing enclosure (Potter Spring) would be expanded under this alternative. The majority of vegetation affected would be riparian and thus, the proposed enclosures are analyzed under that section. However, a loss of approximately 15 junipers is expected to occur with the construction of Potter Spring Enclosure (North Cotterel Allotment) and the Blacksmith Enclosure (South Cotterel Allotment). The vegetation around the both enclosures would be trampled during the construction phase but would recover the following growing season.

Trailing would continue to occur on a case-by-case basis as authorized by the BLM. Because most trailing occurs on roads and is short term (1-2 days), the effect to vegetation would be similar to the permitted grazing in each pasture.

Cumulative Effects

Projects in the foreseeable future include the Cotterel Wind Energy Project, fuels reduction proposals (Conner Wildland Urban Interface (WUI) - Phase 2), Gateway West transmission line, a gravel pit expansion, and the Burley aspen restoration project.

There would be no increases or decreases in permitted active AUMS resulting from the implementation of any of these projects. However, portions of the Conner WUI Phase 2 project may be temporarily excluded from livestock grazing if seeding occurs.

Vegetation types that could be affected by the construction of the wind energy project include: juniper; mountain mahogany; big, low, and mountain sagebrush; and grasslands. The wind energy project would initially impact approximately 337 to 350 acres (3%) of rangeland. Following construction, reclamation and revegetation efforts would restore forage availability on 147 acres. Restoration of disturbed vegetation to pre-construction conditions is expected to take approximately 3 to 5 years. Permanent impacts to rangeland vegetation would result in a loss of forage on approximately 203 acres (BLM 2006)

Vegetation (juniper) would be removed in the Conner WUI project (Conner Creek area in the south end of South Cotterel Allotment) and the Burley aspen restoration project (Jim Sage, North

and South Cotterel Allotments). Herbaceous vegetation would be lost in the construction of the Gateway West transmission lines (north end of North Cotterel Allotment) and the gravel pit expansion (north end of Jim Sage Allotment). The areas of herbaceous vegetation removed are small and unconnected.

The long term grazing effects on upland vegetation should be the same as the baseline or improve if annual indicators are used to manage the grazing rotation. Currently both allotments are meeting Idaho Standards for Rangeland Health in regards to vegetation.

The vegetation removed from grazing is at a sustainable level. The cumulative effects of vegetation removed from the proposed projects and reasonably foreseeable projects are vegetation removal that is either small in size compared to the amount of vegetation in the cumulative effects analysis area or temporary in nature until the vegetation regrows.

Future grazing permit renewals in the RRCEAU will be aimed at either maintaining vegetative conditions where those conditions are found to be meeting the Standards for Rangeland Health or improve resource conditions where Rangeland Health Standards are found to be deficient and deficiencies are a result of current livestock management.

Wildlife Species (Non-sensitive)

Direct and Indirect Effects

The proposed action to increase the size of the fenced enclosure around Potter Spring in the North Cotterel Allotment, the creation of a fenced enclosure along Blacksmith Creek, and the creation of the Conner Division Fence would cause a minimal disturbance/displacement of mule deer during construction and would add a new potential collision or entanglement hazard. The potential for injury to mule deer would be minimized through construction of a fence to wildlife friendly specifications. The effect of adapting the temporary rehabilitation fences would have no benefit of decreased collision hazard for mule deer gained by removal of these fences.

Indirectly, mule deer would benefit from these fences and enclosures through improved habitat conditions expected to result from these projects such as increased riparian cover (important for bedding and fawning).

Cumulative Effects

Cumulative effects to mule deer in the project area are the same as described under the no-action alternative.

Recreation

Direct and Indirect Effects

Under Alternative 2, the grazing season could be extended for 14 days and initiated 14 days earlier in the spring. Recreation experiences such as horseback riding, mountain biking or Off Highway Vehicle (OHV) use may be temporarily interrupted by gates that need to be open and closed to gain access to grazed areas. Alternative 2 includes the permanent adoption of three temporary fire rehabilitation fences. Construction of one new pasture division fence with a gate, one new enclosure and the expansion of an existing enclosure are projects proposed under this action. These projects could interrupt the current recreation experience.

Cumulative Effects

There are no known cumulative effects from the Proposed Action alternative on recreation because there are no new recreation proposals planned around the Cotterel Allotments.

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