

**Bureau of Land Management  
Little Snake Field Office  
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## **Peroulis Grazing Plan**

### **Peroulis, John & Sons, Authorization #0501063**

#### **Allotments (section 3)**

Scandinavia #04518  
North Pole Gulch #04553  
West Four Mile #04513  
State Block EU #04578  
Fortification Rocks #04501  
Lower Fortification #04506  
Upper Four Mile #04500

### **Peroulis, John & Sons, Authorization #0501246**

#### **Allotments (section 15)**

Round Mountain #00014  
West Black Mountain #04043

### **Fourmile Sheep LLC, Authorization #0501062**

#### **Allotments (section 3)**

Chicken Sage #04508  
East Mud Spring Draw #04509  
West Mud Spring Draw #04510

## *Introduction*

The Peroulis family livestock operations have been active in Northwest Colorado and Southern Wyoming since around 1900. Bureau of Land Management (BLM) records indicate that the Peroulis family has held BLM public land grazing permits/leases with the Little Snake Field Office (LSFO) since at least the early 1950's. Since that time there have been many changes in grazing allotments and grazing scenarios due to: BLM management priorities and actions, changes in livestock operations, sale and purchase of base property, and transfer of grazing preferences and allotments.

The history of changes encompassing the Peroulis family livestock operations and BLM public land grazing is extensive, complicated, and somewhat incomplete. Therefore, the details and history of how things got to where they are today will not be elaborated on in this document.

This plan will instead focus on the recent past and future of the Peroulis family livestock operations and BLM public land grazing. This plan is intended to direct livestock grazing for all allotments authorized to the Peroulis family over the term of the ten year permits or lease administered by the LSFO. Unless BLM management priorities change and/or Peroulis livestock operations change this plan may direct management beyond this ten year time frame or may be amended to accommodate changes. Currently the Peroulis family livestock operation operates under two names; Peroulis, John & Sons & Four Mile Sheep LLC.

Unless referred to individually, throughout this document, all allotments encompassed within the Peroulis Grazing Plan may be referred to as the "planning area", see map, Attachment #1. This planning area is comprised of 12 BLM grazing allotments, administered by the Little Snake Field Office, consisting of 33,848 acres BLM lands, 12,415 acres State Land Board lands, and 7,852 acres private lands, totaling 54,115 acres that are authorized for 3,272 active animal unit months (AUMs).

Implementation of this plan will be analyzed as the Proposed Action in combination with the following ten year permit and lease renewals (DOI-BLM-CO-N010-2010-0033-EA).

- Renewal of the grazing permit #0501063, authorized to Peroulis, John and Sons, on the Upper Four Mile #04500, Fortification Rock #04501, West Four Mile #04513, Scandinavia #04518, North Pole Gulch #04553, and State Block EU #04578 Allotments.
- Renewal of the grazing permit #0501096, authorized to Peroulis, John and Sons, on the Little Fortification #04502, Lower Fortification #04506 Allotments.
- Renewal of the grazing permit #0501062, authorized to Fourmile Sheep LLC, on the Chicken Sage #04508, East Mud Spring Draw #04509, and West Mud Spring Draw #04510 Allotments.
- Renewal of the grazing lease for authorization #0501246, authorized to Peroulis, John and Sons on the Round Mountain #00014 and West Black Mountain #04043, which

currently expires in 2015, but will be renewed to the same term as all above authorizations for ease of administration.

## *Plan Conformance Review*

This Grazing Plan is subject to the following plan:

Name of Plan: Little Snake Resource Management Plan and Record of Decision

Date Approved: April 26, 1989

Results: The Peroulis Grazing Plan has been reviewed for conformance with this plan (43 CFR 1610.5, BLM 1617.3).

The Peroulis Grazing Plan is consistent with the Little Snake Resource Management Plan, Record of Decision, Livestock Grazing Management objective to improve range conditions for both wildlife and livestock through proper utilization of key forage plants and adjusting livestock stocking rates as a result of vegetation studies.

### **Other Documents:**

The Federal Land Policy and Management Act (FLPMA) of 1976, as amended (43 USC 1752).

Rangeland Reform Final Environmental Impact Statement. December, 1994.

Standards for Public Land Health and Guidelines for Livestock Grazing in Colorado. Date Approved: February 12, 1997.

### **Management Units:**

The Upper Four Mile, Fortification Rocks, Lower Fortification, Little Fortification, Round Mountain, and W. Black Mtn. Allotments and portions of the, State Block EU, East Mud Springs Draw, West Four Mile, and Scandinavia Allotments and are located in the **Northern Central** Management Unit #2. The Peroulis Grazing Plan is consistent with the management objectives for this unit to not interfere with the development of oil and gas resource development objectives.

The Chicken Sage Allotment and the majority of the Scandinavia Allotment are located in the **Little Snake River** Management Unit #3. The Peroulis Grazing Plan is consistent with the objectives of this unit to improve soil and watershed values, increase forage production, and enhance livestock grazing.

A portion of the West Four Mile, East Mud Springs Draw, and State Block EU Allotments and the entire North Pole Gulch and West Mud Springs Draw Allotments are located in the **Northern Great Divide** Management Unit #6. The Peroulis Grazing Plan is consistent with the

management objectives of this unit to maintain and improve critical habitat for sage grouse, mule deer, and pronghorn antelope.

Portions of the W. Black Mtn. and Round Mountain Allotments are located in the **Eastern Yampa River** Management Unit #1. The Peroulis Grazing Plan is consistent with the management objectives of this unit to provide for the development of the coal and oil and gas resources.

## *Allotments*

Management categories referred to are: M = maintain, I = improve, and C = custodial.

### **Scandinavia #04518**

T11N R93W, all or portions of sections 3-10, 15-18,  
20-22, 26-28, 34

8,512 acres BLM lands  
91 acres private lands  
638 acres State Land Board lands  
9,241 Total Acres

The management category “I” Scandinavia Allotment #04518 is located 30 to 35 miles northwest of Craig, CO along Moffat County Road #86 and #88, and 4 to 9 miles south of the Colorado/Wyoming state line. Elevation on the allotment varies from approximately 6,350 to 6,800 feet. Dry Gulch bisects the allotment, and Scandinavian Gulch is located along the south west boundary. Both drain northwesterly into the Little Snake River near the state line. The permittee uses this allotment for their spring shearing and late fall shipping operations. The State Land Board (SLB) land in this allotment was leased by Morgan Creek Ranch. Although there is no indication Morgan Creek ever used this unfenced section, Peroulis’s have been using this parcel by virtue of being land locked within their authorized BLM allotment. As of 11/09/2009 Peroulis have acquired this state lease. In the 1999 permit renewal (CO-016-LS-99-009 EA), the grazing preference was reduced from 1,375 AUMs to 896 AUMs to more accurately reflect the carrying capacity based on site potential and stocking rates on neighboring allotments. Of the 479 AUM reduction, 360 AUMs were placed in suspension. This reduction was based on range conditions and stocking rates on similar adjacent allotments. This allotment is currently authorized for 896 AUMs. From 1999 to 2008 average use was 48% of active AUMs. See map, Attachment #3.

### **North Pole Gulch #04553**

T12N R91W, all or portions of sections 19, 20, 29, 30-32

1,781 acres BLM lands  
442 acres private lands  
2,223 Total Acres

The management category “I” North Pole Gulch Allotment #04553 is located 5 to 7 miles south of Baggs, Wyoming, west of Colorado State Highway 13, and adjacent to the West Four Mile Allotment. Elevation on the allotment varies from approximately 6,300 to 6,450 feet. Surface runoff from public land drains into Pole Gulch, along the west portion of the allotment, or to Timberlake Creek along the east portion of the allotment. The allotment is adjacent to the Pole

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Gulch State Land Board (SLB)/Division of Wildlife (DOW) wildlife recreation property. This allotment consists of two pastures, and is currently authorized for 187 AUMs. From 1999 to 2008 average use was 61% of active AUMs. See map, Attachment #4.

**West Four Mile #04513**                      T12N R91W, all or portions of sections 20-22, 26-29, 32-35

3,780 acres BLM lands  
510 acres private lands  
13 acres State Land Board lands  
4,303 Total Acres

The management category “I” West Four Mile Allotment #04513 is located 5 to 7 miles south of Baggs, Wyoming, east of Colorado State Highway 13 and the North Pole Gulch Allotment, and north of the State Block EU Allotment. Elevation on the allotment varies from approximately 6,300 to 6,600 feet. Four Mile Creek runs through public and private lands in this allotment. This allotment is authorized for 199 AUMs. From 1999 to 2008 average use was 76% of active AUMs. See map, Attachment #5.

**State Block EU #04578**                      T11N R91W, all or portions of sections 1-4, 9-12, 13-16, 22-24, 25-27, 34-36  
T12N R91W, all or portions of sections 32-36

1,675 acres BLM lands  
176 acres private lands  
10,946 acres State Land Board lands  
12,797 Total Acres

The management category “M” State Block EU Allotment #04578 is located 24 to 31 miles north of Craig CO, south of the West Four Mile Allotment, west of the Upper Four Mile Allotment, and east of Colorado State Highway 13. Elevation on the allotment varies from approximately 6,400 to 6,900 feet. State Land Board land within the allotment is enrolled in the SLB/DOW public access program for wildlife-related recreation. This land is referred to as the Bakers Peak property and receives considerable recreation use. This allotment consists of two pastures, bisecting the public land. This allotment is currently authorized for 171 AUMs. From 2000 to 2008 average use was 27% of active AUMs. See map, Attachment #6.

**Fortification Rocks #04501**                      T10N R91W, all or portions of sections 22-24, 26, 27, 33, 34  
T9N R91W, all of portions of sections 2-4

3,070 acres BLM lands  
1,038 acres private lands  
4,108 Total Acres

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The management category “M” Fortification Rocks Allotment #04501 is located 18 to 23 miles north of Craig, CO and west of Colorado State Highway 13. This allotment is a combination of the former Upper Fortification Allotment #04501, Fortification Dike Allotment #04505, and Mud Springs Allotment #04554. These allotments were combined in 1998 since they were authorized to one permittee (Peroulis). Elevation on the allotment varies from approximately 6,700 to 7,100 feet. Most of the runoff from public land in this allotment drains into Fortification Creek. The allotment consists of three pastures. A privately owned pasture used with this allotment lies to the south and west of Colorado State Highway 13. This allotment is authorized for 414 AUMs. From 1999 to 2008 average use was 81% of active AUMs. See map, Attachment #7.

**Little Fortification #04502**                      T9N R91W, all or portions of sections 24, 25

314 acres BLM lands  
251 acres private lands  
565 Total Acres

The management category “C” Little Fortification Allotment #04502 is located approximately 20 miles north of Craig, CO and bisected by Colorado State Highway 13. All public lands within this allotment are to the west of Colorado State Highway 13 and west of Fortification Creek. Elevation on the allotment ranges from approximately 6,600 to 6,800 feet. Runoff from this allotment drains east into Fortification Creek. This allotment is authorized for 56 AUMs. From 2001 to 2007 average use was 131% of active AUMs. See map, Attachment #8.

**Lower Fortification #04506**                      T9N R91W, all or portions of sections 26, 34-36

967 acres BLM lands  
680 acres private lands  
1,647 Total Acres

The management category “I” Lower Fortification Allotment #04506 is located approximately 20 miles north of Craig, CO and bisected by Colorado State Highway 13. This allotment consists of two pastures. Fortification Creek bisects the public lands located in section 36. Fortification Creek forms an incised channel through the middle of public lands in section 36 and make livestock movement between pastures and within the riparian area difficult. As a result one side of the riparian area tends to receive more livestock use than the other side. Elevation on the allotment ranges from approximately 6,600 to 6,800 feet. Runoff from this allotment drains into Fortification Creek. This allotment is authorized for 116 AUMs. From 2001 to 2008 average use was 49% of active AUMs. See map, Attachment #8.

**Upper Four Mile #04500**                      T11N R90W, all or portions of sections 19, 20, 29-32  
T10N R90W, all or portions of sections 5-8

4,195 acres BLM lands  
619 acres private lands  
4,814 Total Acres

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The management category “M” Upper Four Mile Allotment #04500 is located 24 to 30 miles north of Craig, CO, east of State Block EU Allotment, and north of Moffat County Road #38. Elevation on the allotment varies from approximately 6,700 to 7,300 feet. The allotment is adjacent to the Bakers Peak SLB/DOW wildlife-related recreational property and west of the Willow Creek SLB/DOW property. This allotment consists of two pastures, and is authorized for 505 AUMs. From 1999 to 2008 average use was 48% of active AUMs. See map, Attachment #9.

**Round Mountain #00014** T10N R90W, all or portions of sections 9-12, 13-17, 19,  
20, 29, 30, 32, 33

1,100 acres BLM lands  
3,699 acres private lands  
4,799 Total Acres

The Round Mountain Allotment #00014 is located approximately 22 miles north of Craig, CO. The allotment lies east of Colorado State Highway 13. Elevation on the allotment varies from approximately 6,800 to 8,900 feet. Runoff from this allotment drains into Fortification Creek. This allotment consists of eight pastures amongst public and private lands. This configuration is the result of combining four different BLM grazing allotments, West Sand Point Allotment #04040, Cull Reservoir Allotment #04041, East Fortification Allotment #04042, and County Road #40 #04045 Allotments. This allotment is authorized for 303 AUMs. Since billing began in 2006 for the new Round Mountain Allotment average use was 100% of active AUMs. See map, Attachment #10.

**West Black Mtn. #04043** T10N R90W, portions of sections 16 & 21

594 acres BLM lands

The West Black Mountain Allotment #04043 is located approximately 22 miles north of Craig, CO. The allotment lies east of Colorado State Highway 13. Elevation on the allotment varies from approximately 7,700 to 8,300 feet. Runoff from this allotment drains into Fortification Creek. This allotment is run in common with Harvey Johnson. Mr. Johnston has leased his grazing preference to Peroulis, John & Sons for the past few years. This allotment is authorized for a total of 140 AUMs with 70 authorized to Peroulis and 70 authorized to Mr. Johnson. From 1999 to 2008 average use was 100% of active AUMs. See map, Attachment #10.

**Chicken Sage #04508** T10N R91W, all or portions of sections 1-4, 9-12, 13-15

4,715 acres BLM lands  
34 acres private lands  
4,749 Total Acres

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The management category “M” Chicken Sage Allotment #04508 is located 20 miles north of Craig CO, is bisected by Colorado State Highway 13, and between the East Mud Springs Draw and Fortification Rocks Allotments. Elevation on the allotment varies between approximately 6,600 to 6,800 feet. The allotment consists of three pastures. A draft coordinated activity plan was developed in 1990 or 91 but never implemented. This allotment is currently authorized for 475 AUMs. From 1999 to 2008 average use was 90% of active AUMs. See map, Attachment #11.

**East Mud Spring Draw #04509** T11N R91W, all or portions of sections 27-29, 32-34

1,425 acres BLM lands  
148 acres private lands  
821 acres State Land Board lands  
2,394 Total Acres

The management category “M” East Mud Springs Draw Allotment #04509 is located 26 miles north of Craig CO, west of Colorado State Highway 13 along Moffat County Road #3, and between the State Block EU and West Mud Springs Allotments. Elevation on the allotment varies between approximately 6,600 to 6,800 feet. This allotment is currently authorized for 113 AUMs. From 1999 to 2008 average use was 97% of active AUMs. See map, Attachment #12.

**West Mud Spring Draw #04510** T11N R91W, all or portions of sections 19, 29-32  
T11N R92W, all or portions of sections 25, 36

1,800 acres BLM lands  
157 acres private lands  
1,957 Total Acres

The management category “I” West Mud Springs Allotment #04510 is located 28 miles north of Craig CO, west of Colorado State Highway 13 along Moffat County Road #3, and west of the East Mud Springs Allotment. Elevation on the allotment varies between approximately 6,500 feet and 6,900 feet. This allotment consists of two pastures. The permittee acquired the base property for this allotment in 1996, at which time changes to grazing permit #0501062 were approved to include a reduction in permitted use, change in season of use, and a partial change in class of livestock (see EA Number CO-016-96-045). This allotment is currently authorized for 140 AUMs. From 1999 to 2008 average use was 100% of active AUMs. See map, Attachment #12.

*Land Health Standards*

Allotment	Assessment Date(s)	All Standards Met	Standard(s) Not Met	Current Livestock Management a Causal Factor	Management Actions
<b>Scandinavia #04518</b>	10/06/09	Yes	N/A	No	Cheatgrass Control in Dry Gulch. Plateau Treatment (1,000 acres) Submitted for 2011 Funding
<b>Comments:</b> Two of three sites were meeting all standards. One site in Dry Gulch did not meet native species and wildlife habitat criteria due to cheatgrass infestation. This area was not representative of the entire allotment.					
<b>North Pole Gulch #04553</b>	10/07/09	No	#3 – Healthy Productive Plant & Animal Communities #4 – Special Status, Threatened and Endangered Species	No	Cactus Treatment (500 acres) Submitted for 2011 Funding
<b>Comments:</b> Prickly pear cactus has reached undesirable levels causing adverse affects to the abundance and diversity of native vegetation. This is also negatively affecting habitat quality for the greater sage grouse.					
<b>West Four Mile #04513</b>	10/07/09	No	#3 – Healthy Productive Plant & Animal Communities #4 – Special Status, Threatened and Endangered Species	No	Cactus Treatment (500 acres) Submitted for 2011 Funding
<b>Comments:</b> Prickly pear cactus encroachment and an old burn area that has not recovered to native vegetation are having adverse affects to the abundance and diversity of native vegetation. This is also negatively affecting habitat quality for the greater sage grouse.					
<b>West Mud Spring #04510</b>	10/08/09	Yes	N/A	N/A	N/A
<b>East Mud Spring #04509</b>	10/08/09	Yes	N/A	N/A	N/A

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<b>Allotment</b>	<b>Assessment Date(s)</b>	<b>All Standards Met</b>	<b>Standard(s) Not Met</b>	<b>Current Livestock Management a Causal Factor</b>	<b>Management Actions</b>
<b>Chicken Sage #04508</b>	10/07/08	No	2 – Riparian Systems	No	Rest and or limit use in east pasture where standards are not being met.
<p><b>Comments:</b> Approximately 1.5 miles of the lotic, South Fork Four Mile Creek (Reach 1, R-1) was assessed for Properly Functioning Condition (PFC). Over this entire reach there are small areas of incised channel and scours at frequent intervals. Other areas along this reach were in great condition. There were no obvious causal factors and no evidence of recent (past few years) overgrazing. Riparian vegetation was abundant, diverse, and vigorous in all areas except these incised areas and scours. One theory is that this reach was in a state of natural recovery from historic overuse. This theory is based on the documentation that there was one upland site near this riparian area that was not meeting standards in 2003, and has improved to meeting all standards in 2009. But, due to the frequency and abundance of these incised and scoured areas, R-1 of South Fork Four Mile Creek is rated at Functioning at Risk (FAR) with no apparent trend.</p>					
<b>Fortification Rocks #04501</b>	08/06/09 & 10/08/09	Yes	N/A	N/A	N/A
<b>Little Fortification #04502</b>	10/08/09	Yes	N/A	N/A	N/A
<b>Lower Fortification #04506</b>	08/06/09	Yes	N/A	N/A	N/A
<b>Upper Four Mile #04500</b>	10/07/09	Yes	N/A	N/A	Periodic rest and limited use for the south pasture
<p><b>Comments:</b> The south site failed to meet standards in 2003, and is meeting standards in 2009. Although this allotment was meeting all standards it was agreed that overgrazing the southern pasture would cause standards not to be met due to the presence and potential spread of annual grasses.</p>					
<b>Round Mountain #00014</b>	06/23-26/03	Yes	N/A	N/A	N/A
<b>West Black Mountain #04043</b>	06/23-26/03	Yes	N/A	N/A	N/A

See Attachments 3-12 for assessment locations. These sites are not permanent monitoring locations but randomly chosen to represent the most prevalent ecological sites in all allotments. Many of the sites assessed in 2009 were in the same general location as the 2003 assessments for the purpose of comparison.

## *Planning Area Resources*

### **Soils**

In all allotments listed in the Peroulis Grazing Plan there are 29 major soils mapping units covering a vast variety of soil types, compositions, and properties. All soil mapping units with areas over 200 acres are listed in the table below with acreages and associated ecological site names. Detailed information on soil mapping units and ecological sites may be found in the United States Department of Agriculture, Natural Resource Conservation Service publication Soil Survey of Moffat County Area, Colorado (CO686).

<b>Soil Mapping Units/Acres/Ecological Site</b>			
10-Battlement fine sandy loam, 0 to 3 percent slopes: 969 acres - Foothill Swale	11-Battlement silt loam, Saline, 0 to 3 percent slopes: 272 acres - Salt Meadow	15-Berlake-Taffom-Gretdivid complex, 10 to 20 percent slopes: 948 acres - Deep Loam, Rolling Loam, Sandy Land	19-Borollic Natrargids-Borollic Haplargids-Ustic Torrifluents complex, 0 to 20 percent slopes: 280 acres - N/A
77-Forelle loam, 3 to 12 percent slopes: 821 acres - Rolling Loam	78-Forelle loam, 12 to 25 percent slopes: 478 acres - Rolling Loam	81-Forelle-Obadia complex, 1 to 8 percent slopes: 1,738 acres - Rolling Loam, Deep Loam	82-Forelle-Pinelli-Maysprings complex, 5 to 20 percent slopes: 673 acres - Rolling Loam, Clayey Foothills, Sandyland
128-Maybell sand, 3 to 12 percent slopes: 1,160 acres - Sandhills	130-Maysprings coarse sandy loam, 3 to 12 percent slopes: 1,428 acres - Rolling Loam	131-Maysprings-Gretdivid loamy coarse sands, 10 to 20 percent slopes: 681 acres - Sandyland	132-Milren fine sandy loam, 0 to 10 percent slopes: 1,173 acres - Claypan
149-Pinelli loam, 3 to 12 percent slopes: 671 acres - Clayey Foothills	154-Quealman sand, 0 to 3 percent slopes: 205 acres - Sandy Swale	162-Rock River sandy loam, 3 to 12 percent slopes: 1,219 acres - Rolling Loam	163-Rock River sandy loam, 12 to 25 percent slopes: 277 acres - Rolling Loam
173-Ryark-Powderwash complex, 2 to 15 percent slopes: 2,949 acres - Loamy 7-10" Ppt, Shale	174-Ryark-Maybell complex, 1 to 12 percent slopes: 4,532 acres - Rolling Loam, Sandhills	178-Simanni-Ruedloff complex, 1 to 10 percent slopes: 1,631 acres - Sandy, Sandy 9-11" Ppt	181-Stunner sandy loam, 1 to 8 percent slopes: 594 acres - Rolling Loam
184-Styers-Pinelli-Taffom complex, 10 to 25 percent slopes: 7,831 acres - Claypan, Clayey Foothills, Rolling Loam	195-Torriorthents, 12 to 25 percent slopes: 247 acres - N/A	197-Torriorthents-Rock outcrop, Sandstone complex, 25 to 75 percent slopes: 767 acres - N/A	198-Torriorthents-Rock outcrop, Shale complex, 30 to 75 percent slopes: 514 acres - N/A
199-Torriorthents-Torripsamments complex, 12 to 40 percent slopes: 3,747 acres - N/A	200-Tresano sandy loam, 3 to 12 percent slopes: 584 acres - Loamy 7-10" Ppt	201-Tresano-Hiatha-Kandaly association, 2 to 20 percent slopes: 235 acres - Clayey 9-11" Ppt, Alkali Upland, Dry Sandy	204-Typic Natrargids, 0 to 5 percent slopes: 446 acres - N/A
223-Youngston loam, Well Drained, 0 to 3 percent slopes: 205 acres - Foothill Swale			

## **Upland Vegetation**

The majority of vegetation types in all allotments of the planning area are Wyoming big sagebrush, mountain big sagebrush, and basin big sagebrush. Other vegetation types that occur as minor plant communities include silver sagebrush/grassland, which occurs in riparian habitat along streams above the wet sedge and willow riparian zone, juniper/sagebrush, juniper/pinyon pine/sagebrush, and mountain shrub/aspen woodland vegetation types found at higher elevations where precipitation is more abundant.

*Wyoming Big Sagebrush/Grassland:* The Wyoming big sagebrush/grassland is the most common vegetation cover type in the allotments within the planning area. It occurs in shallow to moderately deep coarse soil types at lower elevations between 6,000 and 7,500 feet. Grass and forb species vary depending on soil texture, aspect, and slope. Common grass and grass-like species include bluebunch and thick spike wheatgrass, Sandberg and mutton bluegrass, Indian ricegrass, needle-and-thread, threadleaf sedge, and bottlebrush squirreltail. Common forbs include phlox, Hooker sandwort, buckwheat, penstemon, Indian paintbrush, globemallow, and prickly pear cactus.

*Basin Big Sagebrush:* Basin big sagebrush can intermix with serviceberry, green and rubber rabbitbrush, snowberry, bitterbrush, silver sagebrush, and mountain mahogany, depending on the soil depth, annual precipitation, and elevation. Grasses occurring in these communities include basin wildrye, green needlegrass, Idaho fescue, thick spike wheatgrass, Kentucky and mutton bluegrass, and bottlebrush squirreltail. Common forbs include bluebells, groundsel, wild onion, violet, buttercup, false dandelion, buckwheat, penstemon, Indian paintbrush, globemallow, and prickly pear cactus.

*Mountain Big Sagebrush/Grassland:* Mountain big sagebrush is usually the dominant shrub in foothill and higher elevation sagebrush communities, with bitterbrush, serviceberry, snowberry, and mountain mahogany providing subdominant brush diversity. Grasses include Idaho fescue, spike fescue, green and Colombian needle grass, Kentucky, mutton and big bluegrass, elk sedge, and Ross's sedge. Common forbs found in these areas include Indian paintbrush, globemallow, lupine, larkspur, penstemon, and Oregon grape.

## **Riparian Resources**

There are approximately 29 miles of lotic riparian areas within the allotments encompassed in the Peroulis Grazing Plan. All of these stream reaches, excluding some tributaries, are small portions of much longer watercourse lengths. Only Fortification Creek and Timberlake Creek are true perennial streams and support fisheries, the remainder of these riparian areas are seasonal, intermittent, or ephemeral drainages.

There are numerous lentic riparian areas within the planning area, consisting of wetlands, ponds, springs, seeps, and swale areas. Many of these areas have been developed for livestock and wildlife water sources.

## Wildlife

The landscape encompassed in the Peroulis Grazing Plan includes sagebrush grasslands, mixed mountain shrublands, pinyon-juniper woodlands and riparian areas that provide habitat for a variety of mammal, birds, reptiles and amphibians. Limited aspen woodlands are also present in a few of the allotments at higher elevations.

The planning area is located in the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). Priority species on the 2008 United States Fish & Wildlife Service (USFWS) Birds of Conservation Concern List (BCC) for this region that may utilize habitat within the planning area include: bald eagle, ferruginous hawk, golden eagle, flammulated owl, pinyon jay, juniper titmouse, Brewer's sparrow, veery, and Cassin's finch. Ecosystems within the planning area provide important habitat for many other bird species. Sagebrush stands provide nesting and foraging habitat for vesper sparrow, sage sparrow (listed on the BCC list in another BCR), and green-tailed towhee. Pinyon-juniper woodlands provide nesting and foraging habitat for plumbeous vireo, black-chinned hummingbird, and blue gray gnatcatcher. Dusky flycatcher utilize mixed mountain shrub habitat. Aspen woodlands provide nesting and foraging habitat for warbling vireo, red-naped sapsucker, western wood-pewee, and red-shafted flicker. Several nest sites for golden eagles, ferruginous hawks, and red-tailed hawks have been recorded in the general area.

The West Four Mile Allotment provides winter habitat for the bald eagle, a recently delisted species. Bald eagles are known to winter along major waterways and their tributaries within the Little Snake Field Office area, using adjacent upland habitat as scavenging areas primarily for winter or vehicle killed mule deer and elk. Documented winter habitat for bald eagles is located along Four Mile Creek, with large cottonwood trees providing roosting sites.

The planning area is comprised of important habitat for greater sage grouse (ESA candidate species) and Columbian sharp-tailed grouse. The planning area is on the western fringe of sharp-tailed habitat, but sagebrush and mixed mountain shrublands in the planning area still provide nesting and winter habitat for this species. Two sharp-tailed leks are located on BLM lands within the planning area. Sagebrush stands throughout the LSFO can potentially provide habitat for greater sage grouse. Five greater sage grouse leks have been identified on BLM lands within the planning area and the majority of the allotments provide nesting habitat for this species. Two riparian areas, Mud Spring Draw and Timberlake Creek, are utilized as brood-rearing area. Winter habitat is located in the northern allotments. A project to improve greater sage grouse habitat was completed in the Scandinavia Allotment in 2006/2007. This project consisted of removing encroaching pinyon and juniper trees, returning the area to sagebrush dominated ecosystem.

Streams, springs and ponds and the associated riparian vegetation provide habitat for aquatic wildlife. Although there are no known occurrences in the planning area, several known populations of northern leopard frogs occur within the LSFO. Riparian systems within the planning area provide potential habitat for this species. Four Mile and Fortification Creeks both provide habitat for native fish.

Habitat for the federally threatened Canada lynx occurs on the Round Mountain Allotment.

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Lynx habitat on public lands totals 234 acres with 25 acres of winter/denning habitat and 209 acres of other (low quality or summer) habitat. Vegetation in mapped habitat is comprised primarily of aspen woodlands with a small amount of spruce/fir. This habitat is located in the combined BLM/Forest Service (FS) Bears Ears Lynx Analysis Unit (LAU). This LAU is 102,204 acres in size.

The planning area provides important habitat for big game species. Pronghorn antelope and mule deer utilize habitats in the planning area year round. Elk are in the area primarily during the winter months. Several thousand acres of winter range and severe winter range for all three species is present within the planning area.

Elk in the planning area are managed in the Colorado Division of Wildlife (CDOW) Data Analysis Unit (DAU) E-2 which encompasses Game Management Units (GMU) 3, 301, 4, 441, 5, 14 and 214. The 2008 projected population for elk in this DAU was approximately 16,000 animals (2008 draft objectives). The population objective for this unit is 11,000. The CDOW has been working to reduce the unit's elk population for the past few years.

Mule deer within the planning area are managed in DAU D-2, which encompasses GMU 3, 301, 4, 441, 5, 14 and 214. The current population objective for deer in this unit is 37,800 and the population is approximately 40,000 animals.

Pronghorn antelope are managed in DAU A-9, which encompasses GMU 3, 4, 5, 13, 14, 214, 301 and 441. The population objective for antelope in this area is 15,800 and the population projection for 2008 was approximately 16,000 animals.

## **Cultural**

Native American presence in the area covered by the Peroullis grazing plan goes back at least 10,000 years. The planning area was most recently inhabited by the Ute, Shoshone, and possibly Arapahoe peoples. Early European settlement began in the 1870's and increased by the 1900's with the passing of the Homestead Act of 1862, the 1909 Enlarged Homestead Act, and then the Stock Raising Homestead Act of 1916. With these acts of Congress came the establishment of the Great Divide Homestead Colony Number One in 1915, which attracted many homesteaders. The people who homesteaded this area practiced mainly dryland farming, only few with success. The majority of the homesteading population left the area after the Bankhead-Jones Farm Tenant Act of 1937 allowed for the sale of land back to the U.S. government, lands now referred to as LU lands.

Expected prehistoric resources within the planning area include lithic sites, stained/charcoal soils, burnt rock concentrations, and rock art sites. Expected historic sites include historic trash scatters, historic roads, and homesteads.

## **Recreation**

The Round Mountain, West Black Mountain, Little Fortification, Lower Fortification, Fortification Rocks, Upper Four Mile Allotments and parts of the West Four Mile, East Mud Spring Draw, State Block EU and Scandinavia Allotments are in the Northern Central Management Unit #2. Public lands are available for dispersed recreation use and developed

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recreation sites can be established consistent with the management objectives for this unit. Portions of this unit are open to off-road vehicle use. Other portions are seasonally closed or limited to existing roads.

Chicken Sage Allotment and part of Scandinavia Allotment are in the Little Snake River Management Unit #3. Public lands are available for dispersed recreation use and developed recreation sites can be established consistent with the management objectives for this unit. The unit is open to off-road vehicle use.

West Mud Springs Draw and North Pole Gulch Allotments, along with parts of East Mud Springs Draw, West Four Mile, and State Block EU Allotments are in the Northern Great Divide Management Unit #6. Public lands are available for dispersed recreation use and developed recreation sites can be established consistent with the management objectives for this unit. Vehicle use in this management unit is limited to existing roads and trails.

Major recreational activities in the planning area include big game hunting, small game hunting, and dispersed camping. Most recreational use occurs annually between mid-August and the end of December.

## **Nonrenewable Resources (oil & gas, minerals)**

There are 136 federal and non federal wells drilled in the Peroulis Grazing Plan area, with a mix of producing, shut in, and plugged wells. Many of the locations are abandoned. There are 22 pits, fenced and designated not to be in sensitive areas. At the signing of this plan, there are no approved or pending applications to drill. The area is open to application and continued development of oil/gas and mineral resources.

## **Fire Management**

Allotments, #04509, #04510, #04513, #04518, #04553, #04578, the northern portion of #04508, and most of #04500 fall within fire management polygons that emphasize big game severe winter range and sage grouse habitat protection and enhancement. As a result, fires of 50 acres or less or slightly larger fires that have a mosaic or patchy burn pattern are desired. While wildfires for resource benefit are allowed, all fires to date have received a suppression response due to the difficulty in allowing a fire to burn while insuring its final size be 50 acres or less or insuring a larger fire has a mosaic character.

Due to the 2,485 acre Mud Springs Fire in 2007, a significant portion of allotment #04578 was burned, making fires for resource benefit unlikely in that area. Due to total significant burned acreage over the last 10 years in the fire management polygon that contains allotment #04518, fires for resource benefit within this allotment are also unlikely.

Allotments, #04501, #04502, #04506, #04043, #00014, and the southern portions of #04500 and #04508 are located in fire management polygon B1 Urban Interface. In 2009, the Spring fire burned approximately 950 acres of allotment #04508 south of County Rd. 3 and west of Highway 13. Relatively few other fires have occurred in these allotments and have been small in size. For this management polygon, fire is desired for habitat improvement; however, wildland fires will be suppressed because of the large private land holdings. This is a priority area for hazard fuels treatments to reduce the risk of urban-interface fires. BLM lands adjoining National

Forest or State lands will be managed consistent with fire management goals on those adjoining lands. Most fires within this polygon will receive an immediate and aggressive response. Primary strategy is direct control with 90% of the fires held to 10 acres or less.

## *Objectives*

The overall objective of this plan is to provide for sustainable public land multiple uses while continuing livestock grazing with adaptive management.

Specific objectives of this plan include:

- Provide flexibility so that BLM management actions may be implemented while continuing livestock grazing.
- Manage livestock grazing consistent with the BLM Standards for Public Land Health and Guidelines for Livestock Grazing Management in Colorado.
- Maintain and where needed, improve upland and riparian conditions to achieve desired plant communities.
- Manage livestock grazing consistent with BLM wildlife habitat management objectives.
- Coordinate with other federal and state agencies and interested public to assure all public land use objectives are known and addressed to the best ability of the BLM.
- Coordinate with other BLM Field Offices and other agencies where the Peroulis family have grazing permits/leases so that all parties are aware of resource concerns outside of their management area. Resource concerns that may necessitate (if feasible) annual alternations within their management area to help address outside resource concerns.
- Provide adaptability for the BLM and Peroulis livestock operations to make annual alterations due to variability in weather, range conditions, drought, wildfire, land treatments, and economic factors.
- Where appropriate, develop allotment specific resource objectives.

## Allotment Specific Objectives

Allotment	Objective	Land Treatment/Project Construction	Livestock Management	Monitoring for Success
Scandinavia	Reduce cheatgrass in the dry gulch area.	Plateau treatment of 1,000 acres and seeding of native perennial grasses submitted for 2011 funding.	Limit areas of concentration and use in dry gulch so as to not cause areas of disturbance that would facilitate the spread of cheatgrass.	Qualitative monitoring for increases in native grass density. Quantitative and photo point monitoring of cheatgrass densities.
North Pole Gulch	Reduce density of prickly pear cactus.	Herbicide treatment of 500 acres submitted for 2011 funding.	Avoid trailing through areas of dense cactus as broken cactus parts caused by livestock movement can re-sprout in other areas.	Qualitative monitoring with control and treatment areas to document reduction in cactus density and effectiveness of treatment.
West Four Mile	Reduce density of prickly pear cactus.	Herbicide treatment of 500 acres submitted for 2011 funding.	Avoid trailing through areas of dense cactus as broken cactus parts caused by livestock movement can re-sprout in other areas.	Qualitative monitoring with control and treatment areas to document reduction in cactus density and effectiveness of treatment.
West Mud Spring Draw	Maintain and or strengthen fencing to prevent cattle trespass into Timberlake Creek	BLM provides fencing materials needed – permittee is responsible for maintenance and construction.	Annual permittee fence inspection prior to use and upon leaving allotment.	Compliance inspections.
Chicken Sage	Facilitate riparian areas not meeting standards moving toward meeting standards.	N/A	Pasture rest/rotation and limiting use in the South Fork Four Mile Creek.	Reassess riparian area in 5 years to determine if trend is improving or if other management actions are needed.
Upper Four Mile	Reduce density of annual grasses & increase density and diversity of native perennial grasses.	Potential for herbicide and seeding treatment.	Cattle and horse use only permitted early season. Rest rotation and no areas of disturbance in or near areas of annual grass infestations.	Quantitative, unless treatment is implemented then qualitative.

Allotment	Objective	Land Treatment/Project Construction	Livestock Management	Monitoring for Success
Fortification Rocks	Improve livestock distribution so as to optimize utilization and facilitate pasture rest/rotation.	Solar well on LU Lands in SW allotment.	Permittee to apply for Grazing Advisory Board money to help offset BLM cost.	N/A
Lower Fortification	Maintain upward trend on Fortification Creek riparian area.	Fortification Creek livestock crossing/riparian restoration structures.	Limit livestock use, periodic allotment rest. Potential for riparian pasture.	Reassess riparian area in 5 years to determine if upward trend is continuing or if other management actions are needed

## *Grazing Scenario*

The Peroulis livestock operation is primarily sheep with very few cattle and stock/saddle horses. The allotments in the planning area are authorized for spring and fall use to accommodate the following grazing scenario.

Sheep are wintered in the Red Desert area of southern Wyoming on BLM permits administered out of the Rawlins Field Office (RFO). Cattle are authorized from 10/01 to 06/15 on four allotments and sheep are authorized from 11/01 to 04/30 on six allotments; depending on individual allotments sheep numbers range from 242 to 2,324 head. Cattle numbers range from 44 to 266 head/pairs. On a large BLM allotment administered out of the Rock Springs Field Office (RSFO) the Peroulis family is a shareholder of the Rock Springs Grazing Association (RSGA) and is authorized to graze sheep on the Rock Springs Allotment under RSGA.

The Rock Springs Allotment is located in Sweetwater County and consists primarily of checkerboard land. The sections alternate from federal to private land, with approximately half, being private land owned or leased by RSGA. The majority of livestock use (cattle and sheep) currently authorized on the Rock Springs Allotment, 92%, is limited to the dormant season (12/01 – 05/15).

The Rock Springs Allotment contains the following land ownership:

Allotment Name	Allotment Number	Public Acres	Other Federal Acres	State Acres	Private Acres	Total Acres
Rock Springs	13018	956,682	98,795	20,782	984,803	2,061,062

In the spring, sheep are brought into NW Colorado (planning area) and onto the Scandinavia Allotment for shearing. After shearing, sheep are trailed in different bands to the east and south over private lands, State Land Board lands, and the other BLM allotments within the planning area.

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At the southern end of the planning area, the sheep are then shipped to grazing allotments in the Flattops area of the White River National Forest, administered by the Blanco Ranger District. Sheep are authorized from 06/29 to 09/10 on six different allotments with very specific rotations and annual operating instructions. Depending on individual allotments, sheep numbers range from 900 to 1,100 ewe/lamb pairs, authorization is also provided for 2 horses on all allotments. In addition, from the southern end of the planning area, some sheep are shipped to Routt National Forest, to allotments administered by the Yampa District Office. There sheep are authorized from 07/06 to 09/20 on three different allotments, in numbers ranging from 900 to 1,000 ewe/lamb pairs, From the southern planning area, some sheep are trailed to a permit (Quaker Knob Allotment) on the Routt National Forest, administered by the Hahns Peak/Bears Ears District. There sheep are authorized for 15 days within the permitted season of use from 08/01 to 09/01. After summering on the National Forest permits, lambs are shipped to market and the sheep are shipped back to the southern planning area and moved north over the planning area to Wyoming for the winter. See map Attachment #2 for Peroullis Federal Public Land Grazing.

## **Planning Area Grazing Scenario**

Sheep come in bands of approximately 2,500 ewes to the Scandinavia Allotment for shearing after April 15<sup>th</sup>. Bands are classed by wool type and put into the allotment for shearing in groups. The sheared groups are then herded back into bands and trailed out of the allotment. In normal years there are three bands that pass through the Scandinavia Allotment and the planning area.

After leaving Scandinavia the sheep trail along county roads, across other BLM lands, State Land Board lands, and some private lands over a period of 2 to 4 days to the North Pole Gulch and West Mud Springs Draw Allotments.

The North Pole Gulch Allotment is primarily used for sorting (culls, dries, replacements) with the sheep staying about one week per band.

From the North Pole Gulch Allotment sheep are moved east to the West Four Mile Allotment, and south to the West Mud Spring Draw Allotment.

From the West Four Mile Allotment sheep move south to the State Block EU Allotment. From the West Mud Spring Draw Allotment, sheep move east to the East Mud Spring Draw Allotment.

From the East Mud Spring Draw Allotment, sheep move south to the Chicken Sage Allotment.

From the State Block EU Allotment, sheep move to the south east into the Upper Four Mile Allotment.

From the Chicken Sage Allotment, sheep move south to the Fortification Rocks Allotment and then into the Lower Fortification Allotment.

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From the Chicken Sage, Upper Four Mile, and Lower Fortification Allotments sheep are moved into the Round Mountain and W. Black Mountain Allotments, then shipped from corrals on adjacent private lands.

During the fall season of use the order is basically reversed but different areas are used and different routes are taken in moving north to Wyoming. One significant difference is that the Scandinavia Allotment receives less use in the fall, compared to spring, as there is no shearing occurring.

**Note:** Lambing season begins around May 5 -10<sup>th</sup> and continues for approximately 21 days. During this time bands of sheep are moving through the allotments in the planning area. Ewes and newborn lambs must remain in bedding areas for a few days until the lambs are strong enough to travel. Thus, these ewes and lambs cannot travel with the band during this time. So, at any given time there may be as many as a few hundred ewes and lambs left in an allotment while the band moves south. The sheep that are left are then moved when they are ready to travel. In every spring move there are groups of sheep and ewes with newborn lambs spread throughout the planning area until full bands can be reconfigured and shipped to summer range.

Over the entire planning area, livestock numbers in any allotment, at any time during the authorized season of use, will vary greatly. At no time is the full season of use on any allotment within the planning area fully utilized. The season of use on all authorizations covered under this plan is the period that sheep may be traveling through the planning area.

Authorized use is allocated so that 60% of active AUMs are available for spring use and 40% of active AUMs are available for fall use. Any cattle or horse use would reduce available AUMs for sheep.

## *Administrative Actions*

These actions are necessary to facilitate practical management and for ease of administration.

- Combine/consolidate authorization #0501096 (Little Fortification & Lower Fortification Allotments) into authorization #0501063, both are authorized to Peroulis, John and Sons.
- Combine/consolidate the Lower Fortification Allotment #04506 and the Little Fortification Allotment #04502, the allotment will retain the Lower Fortification Allotment name and number and the Little Fortification Allotment would be eliminated. Only the public lands of the Little Fortification Allotment would be merged into the Lower Fortification Allotment. Private lands associated with the Little Fortification Allotment will be removed from allotment boundaries (see map, Attachment #8). The Lower Fortification Allotment acreage would be modified as shown in table below:

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<b>Current Acreage Lower Fortification</b>	<b>Current Acreage Little Fortification</b>	<b>New Acreage Lower Fortification</b>
967 acres BLM 680 acres private 1,647 total acres @ 48% public lands 116 active AUMs	314 acres BLM 251 acres private 565 total acres @ 100% public lands 56 AUMs	1,281 acres BLM 680 acres private 1,961 total acres @ 65% public lands 172 AUMs

- Adjust the percent public lands in the Scandinavia Allotment to account for the State Land Board Lands lease recently acquired by Peroulis, John & Sons. This action was proposed in the 1999 permit renewal EA (CO-016-LS-99-09), but the state lease was just acquired in November of 2009. Percent public lands will be adjusted from 100% to 92%, livestock numbers will be adjusted accordingly.
- The 1999 permit renewal EA reduced the active AUMs in the Scandinavia Allotment from 1,256 to 896, placing 360 AUMs in suspension. This reduction was based on range conditions and stocking rates on similar adjacent allotments. Monitoring over the 3 year period from 2001-2003 was conducted to determine if these AUMs were available for reinstatement. Documentation indicates that these AUMs are available. However, since this 1999 permit renewal the permittee has only used an average of 430 AUMs annually, 48% of the 896 active AUMs. Therefore, these 360 AUMs will remain in suspension and allocated toward maintaining rangeland health. If the need for reinstatement is provided, then reinstatement would be considered.
- Approval of this plan will implement Actual Use billing for all authorizations under this plan. Actual Use reports must be submitted within 15 days after livestock leave BLM allotments in both the spring and fall. Sheep use must be submitted separately from any cattle and horse use.

*Authorized Use & Terms and Conditions*

<b>Authorization #0501063 Peroulis, John &amp; Sons (sec 3)</b>					
<b>Allotment Name &amp; Number</b>	<b>Livestock Number &amp; Kind</b>	<b>Dates</b>		<b>% PL</b>	<b>AUMs</b>
		<b>From</b>	<b>To</b>		
Scandinavia #04518	2175 Sheep	04/15	05/25	92	539
	1965 Sheep	11/01	11/30	92	357
		suspended		92	<u>360</u>
				<b>Total</b>	<b>1,256</b>
North Pole Gulch #04533	370 Sheep	05/01	06/15	79	112
	187 Sheep	10/01	11/30	79	<u>75</u>
				<b>Total</b>	<b>187</b>
West Four Mile #04513	356 Sheep	05/01	06/20	100	119
	200 Sheep	10/01	11/30	100	<u>80</u>
				<b>Total</b>	<b>199</b>
State Block EU #04578	2000 Sheep	05/01	06/30	13	104
	1292 Sheep	10/01	11/30	13	<u>67</u>
				<b>Total</b>	<b>171</b>
Fortification Rocks #04501	782 Sheep	05/01	06/30	79	248
	515 Sheep	09/15	11/15	79	<u>166</u>
				<b>Total</b>	<b>414</b>
Lower Fortification #04506	400 Sheep	05/01	06/30	65	104
	255 Sheep	09/15	11/15	65	<u>68</u>
				<b>Total</b>	<b>172</b>
Upper Four Mile #04500	1230 Sheep	05/20	06/30	89	302
	565 Sheep	10/01	11/30	89	<u>202</u>
				<b>Total</b>	<b>504</b>

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## Authorization #0501246 Peroulis, John & Sons (sec 15)

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
Round Mountain #00014	188 Sheep	05/01	12/31	100	303
West Black Mountain #04043	52 Sheep	05/10	11/30	100	70

## Authorization #0501062 Four Mile Sheep LLC (sec 3)

Allotment Name & Number	Livestock Number & Kind	Dates		% PL	AUMs
		From	To		
W Mud Spring Draw #04510	250 Sheep	05/01	06/20	100	84
	140 Sheep	10/01	11/30	100	<u>56</u>
				<b>Total</b>	<b>140</b>
E Mud Spring Draw #04509	282 Sheep	05/01	06/30	60	68
	189 Sheep	10/01	11/30	60	<u>45</u>
				<b>Total</b>	<b>113</b>
Chicken Sage #04508	710 Sheep	05/01	06/30	100	285
	473 Sheep	10/01	11/30	100	<u>190</u>
				<b>Total</b>	<b>475</b>

### Special Terms and Conditions (all authorizations)

1. 20% of active AUMs in each allotment may be used for cattle and horses. Cattle and horse use may only occur between 05/15 and 08/15, with the exception of T&C #2 below. Cattle & horses use is limited to 14 days in each allotment or pastures within allotments. Cattle and horse use will reduce available AUMs for sheep. Cattle and horse use must be reported separately from sheep use on Actual Use reports.
2. Cattle and horse use is only permitted for 14 days between 05/01 – 06/15 in the south pasture of the Upper Four Mile Allotment due to the abundance of annual grasses. This early season restriction is to use livestock management to help reduce the density and spread of annual grasses.
3. Sheep are to be herded, trailed, and bedded so that the same areas are not used in two consecutive years.
4. Every year, two allotments or pastures within allotments (or combination of) will be rested. Which allotments or pastures are rested is at the permittees discretion with BLM approval, unless BLM mandates certain allotments or pastures be rested for specific management purposes. Rested allotments or pastures may be trailed through over one day, but will not be used for camps, stopovers, or bedding areas. The Scandinavia Allotment and the east pasture of the State Block EU Allotment are exempt from this T&C.

5. Trailing: All trailing must be reported to the BLM prior to the actual event. During spring trailing, temporary annual authorizations will provide for up to nine days (maximum of three days in each allotment) for the Headquarters Allotment #04516, Thornburg Gulch Allotment #04522, and Pole Gulch Allotment #04514. Authorized dates are flexible and permittee coordination between individual allotment permit holders and the BLM is mandatory prior to use. Trailing use in these allotments must be accounted for in Actual Use reports and will be billed accordingly. Trailing through any other allotments must occur within one daylight period with no stopovers or overnights. This annual authorized use will not appear on the actual permit and trailing for all authorizations under the proposed grazing plan will be authorized and billed in authorization #0501063.

## **Range Improvements**

The following range improvements would be implemented over the duration of the grazing permit. Some of the following improvements may be modified from what is described at this time and other improvements may be added, as needed, to meet objectives. All projects are dependent on requested/available funding. Any added projects will require separate NEPA analysis and appropriate clearances.

- Scandinavia Water Developments/Scandinavia Allotment #04518 – Permittee will construct 3 livestock ponds (all less than ¼ acre surface area) and will coordinate with BLM to install an enclosure, solar pump, and piping on an existing historic well to pump water into an existing reservoir. Locations: T11N R93W SW SW sec 5, two reservoirs. T11N R93W center of sec 22, one reservoir and well. A cooperative agreement assigning maintenance responsibilities to the permittee would be signed prior to project implementation. For the well improvement, BLM would cooperate on, and approve project design. Permittee would be responsible for all above ground labor and materials associated with the well. BLM would provide the pump and all enclosure materials. Permittee would provide all labor for reservoirs. This project is for improved livestock distribution and protection of historic resources. See map, Appendix 1- - Attachment #3.
- Scandinavia Cheatgrass Control/Scandinavia Allotment #04518 - The proposed treatment consist of approximately 1,000 acres of BLM land in T11N R93W aerially treated with the herbicide Plateau or Panoramic (active ingredient: imazapic) in order to prevent the germination of cheatgrass. In the winter/early spring, aerially seed the treatment unit with native perennial grasses that are appropriate for the ecological site. The application rate to which the herbicide would be applied is 4 oz/acre. The herbicide would be applied aerially with a fixed wing aircraft. Application is targeted to occur in October/November of 2011. The seed mix would contain the following species: western wheatgrass (arriba), basin wildrye, and Indian ricegrass and would be applied at a rate of 8 lbs/acre. Native shrub populations and densities are adequate in the treatment area to provide viable seed source to maintain and enhance native woody vegetation. This project is for habitat improvement, improved livestock distribution, and restoration of native vegetation. See map, Appendix 1- Attachment #3.

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- North Pole Gulch Cactus Control/North Pole Gulch Allotment #04553 – A 500 acre treatment would occur in T12N R91W. Treatment would involve aerial spraying application, using the herbicide Outpost (active ingredient picloram) at 1.5 pints/per acre. Spraying will be done when cactus is flowering, May-July. This project is for moving allotment toward meeting land health standards, habitat improvement, better livestock distribution, and improved native vegetation diversity. See map, Appendix 1- Attachment #4.
- West Four Mile Cactus Control/West Four Mile Allotment #04513 - A 500 acre treatment would occur in T12N R91W. Treatment would involve aerial spraying application, using the herbicide Outpost (active ingredient picloram) at 1.5 pints/per acre. Spraying will be done when cactus is flowering, May-July. This project is for moving allotment toward meeting land health standards, habitat improvement, better livestock distribution, and improved native vegetation diversity. See map, Appendix 1- Attachment #5.
- State Block EU Allotment Reconfiguration/State Block EU Allotment #04578 – Realign an existing pasture fence to include all BLM lands and separate state lands. Currently the east pasture has 356 acres of BLM lands and over 10,000 acres of State Land Board Lands. By reconfiguring this fence boundary the state lease would manage the majority of acreage within this state land block and BLM would manage only BLM lands with a small portion of state lands. All fence construction would be constructed to BLM standards for wildlife friendly fences and sage grouse protection. This project is primarily for ease of administration and is a low priority relative to resource benefit projects. See map, Appendix 1- Attachment #6.
- Fortification Rocks Solar Well/Fortification Rocks Allotment #04501 – Drill a well and install a solar powered pump feeding two or more sheep troughs. Currently there is no reliable water in the SW portion of this allotment making this portion of the allotment unfeasible for sustained livestock use and rest rotational grazing. The permittee would be responsible for all drilling, including the cost associated with a “dry hole”. In addition, permittee would be responsible for above ground labor and materials. BLM would pay for pumps, casing, exclosure material, and troughs. Approximate location is T10N R91W SW ¼ sec 33. This project is for better livestock distribution and to facilitate pasture rest and deferment. See map, Appendix 1- Attachment #7.
- Fortification Creek Livestock Crossing/Lower Fortification Allotment #04506 - Develop infrastructure that would facilitate livestock crossing the incised channel of Fortification Creek in the southern portion of this allotment. Currently there are very few areas where sheep, and especially lambs, can cross this creek heading toward the pasture east of Highway 13 or shipping corrals. Seasonal flows and fluctuations of the creek can hamper this movement as well. Currently the only good access for eastern movement is at the far north end of the allotment, the pasture east of Highway 13 cannot be easily accessed from this point. A crossing structure will be installed such as a: bridge, culvert, earthen dike, or other structure that would facilitate this movement. This portion of the creek is rated as Functioning at Risk with an upward trend. The potential exists to design a structure(s)

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that would facilitate livestock crossing and riparian improvement as well. A structure such as described here would also assist recreational use of the public lands in this area. The permittee would participate in project cost sharing. Approximate location is T10N R91W S ½ sec 36. This project is for improved livestock distribution, facilitate livestock movement, and riparian restoration. See map, Appendix 1- Attachment #8.

- Chicken Sage Fence Relocation/Chicken Sage Allotment #04508 – Remove the north/south pasture fence and reuse materials to rebuild an east/west pasture fence. The north/south fence was constructed as a riparian pasture fence prior to current permittee acquisition of this permit when the allotment was used for season long cattle grazing. Under the current sheep grazing scenario, riparian protection is accomplished by active herding. By realigning this fence, it would still allow the riparian pasture to exist and be rested or deferred as needed. The fence would be constructed to BLM specifications for a 4-wire livestock fence with all construction adhering to BLM standards for wildlife friendly fences and sage grouse protection. This proposed alignment would also reduce fencing/wildlife conflicts along the east/west migration route. This project was initially approved in the 1999 permit renewal EA (CO-016-LS-99-09) but was not constructed. There is no documentation that planning, flagging, staking, or clearances were conducted. BLM would supply any materials that are not available from removal of the old fence. The permittee would provide all labor. A cooperative agreement assigning maintenance responsibilities to the permittee would be signed prior to project implementation. Approximate location would be T10N R91W, crossing sections 10 & 11. This project is for ease of livestock movement and to facilitate pasture rest and deferment. See map, Appendix 1- Attachment #11.
- Chicken Sage Reservoirs/Chicken Sage Allotment #04508 – Associated with the above fencing relocation project. The permittee would construct 6 to 8 small pit reservoirs, 3 to 4 in each of the new north and south pastures. Exact locations are to be determined but general locations are T10N R91W sections 3, 10, 11, 14, 15. This project is for improved livestock distribution and to facilitate pasture rest and deferment. See map, Appendix 1-Attachment #11.

## Monitoring

Allotment documentation shows the last recorded utilization monitoring on all allotments in the planning area is at least ten years old, or older. Many of these allotments were not authorized to Peroulis at the time of the last monitoring and were run as season long cattle allotments. These circumstances render previous monitoring data ineffective in comparison to today's livestock grazing scenario. There is no evidence of trend or other monitoring, besides utilization, on any allotments within the planning area.

Monitoring set forth in the Peroulis Grazing Plan is as follows:

- Utilization monitoring will be completed after both spring and fall use every other year on all allotments.

# Appendix 1

- Allotments currently not meeting land health standards will have monitoring priority. Trend monitoring will be conducted annually for the first 3-5 years to assure that current management is not impairing movement of these allotments toward meeting standards. After the first 3-5 years monitoring will continue at 3-5 year intervals.
- Any land treatments will have project driven monitoring, with controls, to measure the treatment effectiveness and success.
- Long term, permanent, trend monitoring plots will be established in all allotments as time and resources allow. These plots should be read every three to five years and results used to direct future management.
- If unforeseen resource concerns arise during the duration of this plan appropriate monitoring efforts will be implemented to address/track those concerns as dictated by management actions/decisions.

Monitoring methods will be determined on case by case basis and include, but are not limited to: Photo point, permanent transects for trend and utilization, random point or transect, nearest key species, for utilization. Documented quantitative ocular estimates, where appropriate, for utilization and general range condition. Monitoring method implemented will facilitate management adaptive to changing climate and resource conditions.

## *Summary*

The purpose of this plan is to simplify and streamline administration of large multiple allotment/authorization public land livestock operators, while continuing to meet BLM management objectives. The dynamics and variability of multiple use natural resource management and public land livestock grazing demand that management be all encompassing and adaptive. Working directly with the Peroulis family and other stakeholders in plan development satisfies this criteria. Recent studies recognize and imply that ranchers have a wide range of knowledge related to the management of natural systems and that land management agencies may want to understand what ranchers know about the ecological and management history and dynamics of landscapes under their jurisdiction (Knapp and Fernandez-Gimenez 2009).

This plan must be adaptive, flexible, and amendable to accommodate unforeseen changes in management priorities, circumstances outside of management control, or natural fluctuations and variability.

### Reference:

Knapp. C. N., M. E. Fernandez-Gimenez. 2009. Knowledge in Practice: Documenting Rancher Local Knowledge in Northwest Colorado. *Rangeland Ecology and Management* 62: 500-509.

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# Appendix 1

All parties approve and agree to, all terms, conditions, and management direction as provided in the Peroulis Grazing Plan.

Peroulis, John & Sons

Fourmile Sheep LLC

Authorized Representatives \_\_\_\_\_

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\_\_\_\_\_  
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