

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Mountain Stony Loam (Aspen thicket)

SITE NUMBER: 047AY458UT

MLRA: E47

Original Site Description: Author: DLT

Date: 10/01/1992

Revised Site Description: Author:

Date:

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date:

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: 40-60 inches

Surface Textures: Gravelly Loam Mollic Epipedon

Surface Fragments(<=3" % cover, >3" % cover):

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol):

Geologic Parent Materials: Residuum and Colluvium from Sandstone

Moisture Regime:

Temperature Regime:

Runoff: Medium

Permeability(min-max):

Drainage Class(min-max): Well Drained

Water Erosion Hazard: Moderate to High Depending on Slope

Wind Erosion Hazard:

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches): 0.11-0.14

Major Soils Associated With This Site:

Soil Survey Area: 603

Poleline GR-L 30-70%

Additional information may be found in Section II of the Field Office Technical Guide.

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1. Potential Plant Community Description and Ecological Factors

The general view of this site is shrubby aspen. The potential plant community is dominated by cool-season bunchgrasses. The aspect of this site is that of a grassland with scattered mountain shrubs. Grasses make up approximately 45 percent of the plant community with bluebunch wheatgrass being the dominant. Forbs make up approximately 30 percent. Shrubs are dominated by mountain big sagebrush and make up approximately 25 percent of the plant community and trees make up 10 percent.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|--------------------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Mountain brome | BRCA5 | | 1125 | 2250 | 5 | 10 |
| Slender wheatgrass | ELTR7 | | 1125 | 2250 | 5 | 10 |
| Ross sedge | CARO5 | | 675 | 1125 | 3 | 5 |
| Columbia needlegrass | ACNE9 | | 675 | 1125 | 3 | 5 |
| Nevada bluegrass | PONE3 | | 675 | 1125 | 3 | 5 |
| Letterman needlegrass | ACLE9 | 1 | 225 | 675 | 1 | 3 |
| Bottlebrush squirreltail | ELEL5 | 1 | 225 | 675 | 1 | 3 |
| Bluebunch wheatgrass | PSSP6 | 1 | 225 | 675 | 1 | 3 |
| Blue wildrye | ELGL | 1 | 225 | 675 | 1 | 3 |
| Bulbous oniongrass | MEBU | 1 | 225 | 675 | 1 | 3 |
| Sheep fescue | FEOV | 1 | 225 | 675 | 1 | 3 |
| Other perennial grasses | PPGG | 1 | 1125 | 2250 | 5 | 10 |
| Other annual grasses | AAGG | 1 | 1125 | 2250 | 5 | 10 |

Forbs, %

| Common Name | National | Group | Pounds per Acre | % by Weight of |
|-------------|----------|-------|-----------------|----------------|
|-------------|----------|-------|-----------------|----------------|

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| | Symbol | | Pounds per Acre | | Total Composition | |
|--------------------------------|--------|---|-----------------|------|-------------------|------|
| | | | Low | High | Low | High |
| Lambstongue groundsel | SEIN2 | | 675 | 1125 | 3 | 5 |
| Fendler meadowrue | THFE | | 675 | 1125 | 3 | 5 |
| Mountain desert parsley | LOGR | | 675 | 1125 | 3 | 5 |
| Spurred lupine | LUCAC3 | 2 | 675 | 1125 | 3 | 5 |
| White cranesbill | GERI | 2 | 225 | 675 | 1 | 3 |
| Nettleleaf giant hyssop | AGUR | 2 | 225 | 675 | 1 | 3 |
| Common yarrow | ACMI2 | 2 | 225 | 675 | 1 | 3 |
| Heartleaf arnica | ARCO9 | 2 | 225 | 675 | 1 | 3 |
| Showy cinquefoil | POGR9 | 2 | 225 | 675 | 1 | 3 |
| Shaggy fleabane | ERPU2 | 2 | 225 | 675 | 1 | 3 |
| Spreading sweetroot | OSCH | 2 | 225 | 675 | 1 | 3 |
| Hookspur violet | VIAD | 2 | 225 | 675 | 1 | 3 |
| Northwestern Indian paintbrush | CAAN7 | 2 | 225 | 675 | 1 | 3 |
| Twolobe larkspur | DENU2 | 2 | 225 | 675 | 1 | 3 |
| Languidlady | MEOB | 2 | 225 | 675 | 1 | 3 |
| Meadow goatsbeard | TRDU | 2 | 225 | 675 | 1 | 3 |
| Other perennial forbs | PPFF | 2 | 1125 | 2250 | 5 | 10 |
| Other annual forbs | A AFF | 2 | 1125 | 2250 | 5 | 10 |

Shrubs/Vines, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|------------------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Mountain snowberry | SYOR2 | | 1125 | 2250 | 5 | 10 |
| Chokecherry | PRVI | | 675 | 1125 | 3 | 5 |
| Woods rose | ROWO | 3 | 225 | 675 | 1 | 3 |
| Tobaccobrush | CEVE | 3 | 225 | 675 | 1 | 3 |
| Mountain big sagebrush | ARTRV | 3 | 225 | 675 | 1 | 3 |
| Scouler willow | SASC | 3 | 225 | 675 | 1 | 3 |
| Saskatoon serviceberry | AMAL2 | 3 | 225 | 675 | 1 | 3 |
| Low rabbitbrush | CHVI8 | 3 | 225 | 675 | 1 | 3 |
| Creeping Oregon grape | MARE11 | 3 | 225 | 675 | 1 | 3 |
| Sticky currant | RIVI3 | 3 | 225 | 675 | 1 | 3 |
| Other shrubs | SSSS | 3 | 225 | 3375 | 1 | 15 |

Trees, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|---------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Quaking aspen | POTRT | | 1125 | 2250 | 5 | 10 |

3. Plant Community Annual Production

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At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

| | Low | High |
|------------------|------|------|
| Favorable Year | 2900 | 3000 |
| Average Year | 2150 | 2250 |
| Unfavorable Year | 1400 | 1500 |

4. Ground Cover and Structure

a. Vegetative

| Vegetation Type | Percent Canopy Cover | Height Range (ft) | Percent Basal Area Cover |
|----------------------------------|----------------------|-------------------|--------------------------|
| Grasses & Grass-like (perennial) | 30 | 2 | 15 |
| Forbs (perennial) | 20 | 2 | 10 |
| Shrubs | 15 | 4 | 10 |
| Trees | 70 | 30 | 20 |
| Cryptogams | | | |

b. Other

| | |
|------------------|--|
| Litter | |
| Coarse Fragments | |
| Bare Ground | |

5. Ecological Dynamics of the Site

As this site deteriorates due to grazing pressure mountain brome, slender wheatgrass, meadowrue, and giant hyssop decrease while milkvetch, mountain big sagebrush, and snowberry increase. When the potential natural plant community is burned mountain brome, slender wheatgrass, and mountain big sagebrush decrease while rabbitbrush, snowberry, and quaking aspen increase.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|----------------|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Percent Growth | 0 | 0 | 0 | 5 | 20 | 50 | 5 | 10 | 5 | 5 | 0 | 0 |
| Name | PNC | | | | | | | | | | | |
| ID Number | UT4581 | | | | | | | | | | | |
| Description | Excellent Condition | | | | | | | | | | | |

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

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8. Associated Sites Within MLRA

047AY430UT
 Mountain Loam (Mountain big sagebrush)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

This site is of minor importance for livestock grazing because of steepness of slope.

b. Guide to Forage Quality(Plant preference by season)

| Species | Oct-Nov | Dec-Feb | Mar-May | Jun-Sep |
|---------|---------|---------|---------|---------|
| | | | | |
| | | | | |

VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This site provides food and cover for wildlife.

b. List of Potential Species Present

Wildlife using this site include rabbit, coyote, sage grouse, and mule deer.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

| Wildlife Species → | | | | |
|--------------------|-----|--------|-----|--------|
| Plant Species ↓ | Use | Season | Use | Season |
| | | | | |
| | | | | |

Use - A = preferred or desirable
 B = some use, but less important
 C = little use or used occasionally

Season - F = Fall (Oct-Nov)
 W = Winter (Dec-Feb)
 Sp. = Spring (Mar-May)
 Su. = Summer (Jun-Sep)

3. Recreational Uses

Hunting and hiking

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4. Wood Products

Poles and firewood

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Poleline GR-L 30-70% — loamy-skeletal, mixed Pachic Cryoborolls

Type Location: SW ¼, NE ¼, Section 25, Township 11N, Range 2W

General Legal Description:

Field Office Site Location

Logan
 Murray
 Provo
 Price
 Richfield

Data Collected and References

| Sampling Source | Number of Records | Range Similarity Index | | | |
|-----------------------------|-------------------|------------------------|--------|--------|-------|
| | | > 76% | 51-75% | 26-50% | 0-25% |
| NRCS - ECS - 417 | | | | | |
| UTAH - RANGE - 2 | | | | | |
| | | | | | |
| | | | | | |
| Permanent Transect Location | | | | | |

Other References