

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: Semidesert Bouldery Fan (Blackbrush)

SITE NUMBER: 035XY203UT

MLRA: 035

Original Site Description: Author: GSC

Date: 04/15/1984

Revised Site Description: Author: GSC

Date: 09/22/1993

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

Date: 05/27/1994

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: >60 inches

Surface Textures: Extremely Bouldery

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

Subsurface Textures:

Subsurface Fragments(<=3" % vol, >3" % vol): 35-50%

Geologic Parent Materials: Colluvium from Diorite and Sandstone

Moisture Regime:

Temperature Regime: Mesic

Runoff:

Permeability(min-max):

Drainage Class(min-max): Well Drained

Water Erosion Hazard:

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):

Major Soils Associated With This Site:

Soil Survey Area: 631

Stormitt BYX-L

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

2. PHYSIOGRAPHIC FEATURES

Site Type: Rangeland

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1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is blackbrush and grass among large boulders. The composition by air-dry weight is approximately 50 percent perennial grasses, 5 percent forbs and 45 percent shrubs. Only scattered pinyon and juniper trees may occur in the potential natural plant community.

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 |
| Galleta | HIJA | | 45 | 67.5 | 10 | 15 |
| Black grama | BOER4 | | 22.5 | 45 | 5 | 10 |
| Bush muhly | MUPO2 | | 22.5 | 45 | 5 | 10 |
| Desert needlegrass | ACSP12 | | 22.5 | 45 | 5 | 10 |
| Indian ricegrass | ACHY | | 9 | 22.5 | 2 | 5 |
| Blue grama | BOGR2 | 1 | 4.5 | 13.5 | 1 | 3 |
| Needleandthread | HECO26 | 1 | 4.5 | 13.5 | 1 | 3 |
| Sand dropseed | SPCR | 1 | 4.5 | 13.5 | 1 | 3 |
| Other perennial grasses | PPGG | 1 | 13.5 | 22.5 | 3 | 5 |
| Other annual grasses | AAGG | 1 | 13.5 | 22.5 | 3 | 5 |

Forbs, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|------------------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| Wright birdbeak | COWR2 | 2 | 4.5 | 13.5 | 1 | 3 |
| Spreading skyrocket | IPPO2 | 2 | 4.5 | 13.5 | 1 | 3 |
| Skyblue scorpionweed | PHCO | 2 | 4.5 | 13.5 | 1 | 3 |
| Broadflower pincushion | CHST | 2 | 4.5 | 13.5 | 1 | 3 |
| Indian pipeweed | ERIN4 | 2 | 4.5 | 13.5 | 1 | 3 |
| James wild buckwheat | ERJA | 2 | 4.5 | 13.5 | 1 | 3 |
| Bush pepperweed | LEFR2 | 2 | 4.5 | 13.5 | 1 | 3 |
| Woolly milkvetch | ASMO7 | 2 | 4.5 | 13.5 | 1 | 3 |
| Thorny wirelettuce | STSP6 | 2 | 4.5 | 13.5 | 1 | 3 |
| Plateau yellow catseye | CRFL5 | 2 | 4.5 | 13.5 | 1 | 3 |
| Other perennial forbs | PPFF | 2 | 22.5 | 45 | 5 | 10 |
| Other annual forbs | AAFF | 2 | 22.5 | 45 | 5 | 10 |

Shrubs/Vines, %

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

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| | | | Low | High | Low | High |
|--------------------------|--------|---|------|------|-----|------|
| Blackbrush | CORA | | 45 | 90 | 10 | 20 |
| Fourwing saltbush | ATCA2 | | 22.5 | 45 | 5 | 10 |
| Mormon tea | EPVI | | 22.5 | 45 | 5 | 10 |
| Spiny hopsage | GRSP | 3 | 13.5 | 22.5 | 3 | 5 |
| Bigelow sagebrush | ARBI3 | 3 | 13.5 | 45 | 3 | 10 |
| Broom snakeweed | GUSA2 | 3 | 13.5 | 22.5 | 3 | 5 |
| Crispleaf wild buckwheat | ERCOA | 3 | 13.5 | 22.5 | 3 | 5 |
| Littleleaf horsebrush | TEGL | 3 | 13.5 | 22.5 | 3 | 5 |
| Roundleaf buffaloberry | SHRO | 3 | 13.5 | 22.5 | 3 | 5 |
| Mexican cliffrose | PUME | 3 | 13.5 | 22.5 | 3 | 5 |
| Central pricklypear | OPPO | 3 | 13.5 | 22.5 | 3 | 5 |
| Rubber rabbitbrush | ERNA10 | 3 | 13.5 | 22.5 | 3 | 5 |
| Winterfat | KRLA2 | 3 | 13.5 | 22.5 | 3 | 5 |
| Low rabbitbrush | CHVI8 | 3 | 13.5 | 22.5 | 3 | 5 |
| Other shrubs | SSSS | 3 | 22.5 | 45 | 5 | 10 |

Trees, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|-------------|-----------------|-------|-----------------|------|----------------------------------|------|
| | | | Low | High | Low | High |
| | | | | | | |
| | | | | | | |
| | | | | | | |

3. Plant Community Annual Production

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 | 550 | 600 |
| Average Year | 400 | 450 |
| Unfavorable Year | 250 | 300 |

4. Ground Cover and Structure

a. Vegetative

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| Vegetation Type | Percent Canopy Cover | Height Range (ft.) | Percent Basal Area Cover |
|----------------------------------|----------------------|--------------------|--------------------------|
| Grasses & Grass-like (perennial) | 30 | 2 | 10 |
| Forbs (perennial) | 5 | 1 | 2 |
| Shrubs | 30 | 3 | 15 |
| Trees | | | |
| Cryptogams | | | |

b. Other

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

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, bush muhly and black grama decrease while galleta, broom snakeweed, blackbrush, and Utah juniper increase. Fire does not appear to be an important factor in this site. Cheatgrass and annual weeds are most likely to invade this site.

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 | 5 | 15 | 45 | 35 | 0 | 0 | 0 | 0 | 0 | 0 |
| Name | PNC | | | | | | | | | | | |
| ID Number | UT2031 | | | | | | | | | | | |
| Description | Excellent Condition | | | | | | | | | | | |

7. Aspect Differences Near MLRA Boundaries

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

8. Associated Sites Within MLRA

035XY133UT
 Desert Shallow Sandy Loam (Blackbrush)

035XY243UT
 Semidesert Stony Loam (Blackbrush)

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 provides proper grazing for cattle and sheep during fall, winter, and spring.

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 coyote, bobcat, jackrabbit, kangaroo rat, mice, snake, and hawk.

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

Recreation values are hiking and hunting.

4. Wood Products

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Only scattered stands of pinyon and juniper trees may occur in the potential natural plant community.

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah

County: Garfield

Latitude:

Longitude:

Modal Soil: Stormitt BYX-L — loamy skeletal, carbonatic, mesic Ustollic Calciorthids

Type Location: Section 25, Township 36S, Range 11E

General Legal Description:

Field Office Site Location

Price

Cedar City

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