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 Very Steep Loam (Utah juniper-Pinyon)
SITE NUMBER: 034XY253UT
MLRA: 034
Original Site Description: Author: DJS Date: 05/25/1981
Revised Site Description: Author: DJS Date: 01/04/1994
Approved by: Title: State Range Cons. Signed: Pat Shaver Date: 06/25/1994

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: 20-40 inches
Surface Textures: Sandy Clay Loam
Surface Fragments(<=3” % cover, >3” % cover): 47%
Subsurface Textures: Silty Clay Loam
Subsurface Fragments(<=3” % vol, >3” % vol):
Geologic Parent Materials: Colluvium and Residuum from Shale and Sandstone
Moisture Regime:
Temperature Regime:
Runoff: Very Rapid
Permeability(min-max): Moderately Slow
Drainage Class(min-max): Well Drained
Water Erosion Hazard: Severe
Wind Erosion Hazard: Slight
Electrical Conductivity (EC in mmhos/cm):
Sodium Adsorption Ration (SAR):
Soil Reaction (1:1 water):
Soil Reaction (0.1 M $CaCl_2$):
pH Range:
Available Water Capacity (inches): 2.5-6.0

Major Soils Associated With This Site:

Soil Survey Area: 624
Thedalund Family Moist

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

## 2. PHYSIOGRAPHIC FEATURES

Landform and Position: Canyon Escarpments at Lower Elevations
Aspect: All

| | Minimum | Maximum |
|---|---|---|
| Slope: | 50 | 70 |
| Elevation: | 5000 | 7000 |

Flooding:
- Frequency:
- Duration:

Ponding:
- Depth (inches):
- Frequency:
- Duration:
- Water Table Depth:

## B. CLIMATIC FEATURES

Mean Annual Precipitation (inches): 9-14
Mean Annual Air Temperature: 45-49
Mean Annual Soil Temperature: 47-51
Frost Free Period (days): 0-0
Freeze Free Period (days): 90-150

Temperature and Moisture Distribution:

| Temp | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High | 37 | 43 | 52 | 64 | 73 | 83 | 91 | 88 | 80 | 69 | 51 | 40 |
| Mean | 24 | 30 | 38 | 49 | 58 | 66 | 74 | 71 | 63 | 52 | 38 | 27 |
| Low | 11 | 17 | 25 | 33 | 42 | 49 | 56 | 54 | 46 | 36 | 24 | 14 |

| ppt | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| High | | | | | | | | | | | | |
| Mean | 0.65 | 0.63 | 0.65 | 0.53 | 0.70 | 0.80 | 0.92 | 1.23 | 1.09 | 0.84 | 0.57 | 1.14 |
| Low | | | | | | | | | | | | |

Climate Stations: St. ID.: Location: Period:
From: To:

(Includes factors such as storm intensity, precipitation dependability, origin and pattern of storms, driest and wettest months, orographic effects, etc.)

Influencing Water Features (if any):

Wetland Description(Cowardin System) System Subsystem Class

Stream Types(Rosgen System) System

## C. PLANT COMMUNITY CHARACTERISTICS

## 1. Potential Plant Community Description and Ecological Factors

The dominant aspect of the plant community is Utah juniper and pinyon. The composition by air-dry weight is approximately 55 percent perennial grasses, 15 percent forbs, 30 percent shrubs and 10 percent trees.

## 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 |
| Salina wildrye | LESAS | | 40 | 50 | 20 | 25 |
| Bluebunch wheatgrass | PSSP6 | | 10 | 20 | 5 | 10 |
| Galleta | HIJA | | 6 | 10 | 3 | 5 |
| Indian ricegrass | ACHY | 1 | 2 | 6 | 1 | 3 |
| Needleandthread | HECO26 | 1 | 2 | 6 | 1 | 3 |
| Bottlebrush squirreltail | ELEL5 | 1 | 2 | 6 | 1 | 3 |
| Sandberg bluegrass | POSE | 1 | 2 | 6 | 1 | 3 |
| Western wheatgrass | PASM | 1 | 2 | 6 | 1 | 3 |
| | | | | | | |
| Other perennial grasses | PPGG | 1 | 10 | 20 | 5 | 10 |
| Other annual grasses | AAGG | 1 | 10 | 20 | 5 | 10 |

Forbs, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|---|---|---|---|---|---|---|
| | | | Low | High | Low | High |
| Roughseed catseye | CRFL6 | 2 | 0 | 2 | 0 | 1 |
| Cushion wild buckwheat | EROV | 2 | 0 | 2 | 0 | 1 |
| Thickleaf beardtongue | PEPA6 | 2 | 0 | 2 | 0 | 1 |
| Mountain pepperweed | LEMO2 | 2 | 0 | 2 | 0 | 1 |
| Hedge mustard | SIOF | 2 | 0 | 2 | 0 | 1 |
| Scarlet globemallow | SPCO | 2 | 0 | 2 | 0 | 1 |
| Carpet phlox | PHHO | 2 | 0 | 2 | 0 | 1 |
| Grassy rockgoldenrod | PEPU7 | 2 | 0 | 2 | 0 | 1 |
| Hooker sandwort | ARHO4 | 2 | 0 | 2 | 0 | 1 |
| Tufted milkvetch | ASSP6 | 2 | 0 | 2 | 0 | 1 |
| Northwestern Indian paintbrush | CAAN7 | 2 | 0 | 2 | 0 | 1 |
| Hairy false goldenaster | HEVI4 | 2 | 0 | 2 | 0 | 1 |
| Gumweed tansyaster | MAGR2 | 2 | 0 | 2 | 0 | 1 |
| | | | | | | |
| Other perennial forbs | PPFF | 2 | 10 | 20 | 5 | 10 |
| Other annual forbs | AAFF | 2 | 10 | 20 | 5 | 10 |

Shrubs/Vines, %

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

| | Symbol | | | | Total Composition | |
|---|---|---|---|---|---|---|
| | | | Low | High | Low | High |
| Black sagebrush | ARNO4 | | 30 | 40 | 15 | 20 |
| Birchleaf mountainmahogany | CEMO2 | 3 | 2 | 6 | 1 | 3 |
| Mormontea | ERVI | 3 | 2 | 6 | 1 | 3 |
| Bigelow sagebrush | ARBI3 | 3 | 2 | 6 | 1 | 3 |
| Wyoming big sagebrush | ARTRW | 3 | 2 | 6 | 1 | 3 |
| Fourwing saltbush | ATCA2 | 3 | 2 | 6 | 1 | 3 |
| Shadscale | ATCO | 3 | 2 | 6 | 1 | 3 |
| Mexican cliffrose | PUME | 3 | 2 | 6 | 1 | 3 |
| Winterfat | KRLA2 | 3 | 2 | 6 | 1 | 3 |
| Spiny greasebush | GLSPM | 3 | 2 | 6 | 1 | 3 |
| Broom snakeweed | GUSA2 | 3 | 2 | 6 | 1 | 3 |
| Stemless mock goldenweed | STACA | 3 | 2 | 6 | 1 | 3 |
| Central pricklypear | OPPO | 3 | 2 | 6 | 1 | 3 |
| Spanish bayonet | YUHA | 3 | 2 | 6 | 1 | 3 |
| Crispleaf wild buckwheat | ERCO14 | 3 | 2 | 6 | 1 | 3 |
| | | | | | | |
| Other shrubs | SSSS | 3 | 10 | 20 | 5 | 10 |

Trees, %

| Common Name | National Symbol | Group | Pounds per Acre | | % by Weight of Total Composition | |
|---|---|---|---|---|---|---|
| | | | Low | High | Low | High |
| Utah juniper | JUOS | | 6 | 10 | 3 | 5 |
| Pinyon pine | PIED | | 6 | 10 | 3 | 5 |

**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 | 200 | 250 |
| Average Year | 150 | 200 |
| Unfavorable Year | 50 | 100 |

**4. Ground Cover and Structure**

a. Vegetative

| Vegetation Type | Percent Canopy Cover | Height Range (ft.) | Percent Basal Area Cover |
|---|---|---|---|
| Grasses & Grass-like (perennial) | 20 | 2 | 10 |
| Forbs (perennial) | 5 | 1 | 2 |
| Shrubs | 20 | 3 | 10 |
| Trees | 10 | 10 | 5 |
| Cryptogams | | | |

b. Other

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

## 5. Ecological Dynamics of the Site

Livestock grazing on this site is of minor importance in altering the plant community because of steep slopes. When the potential natural plant community is burned, Utah juniper, pinyon and black sagebrush decrease while grasses, rabbitbrush and annuals 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 | 5 | 15 | 45 | 35 | 0 | 0 | 0 | 0 | 0 | 0 |
| Name | PNC | | | | | | | | | | | |
| ID Number | UT2531 | | | | | | | | | | | |
| Description | Excellent Condition | | | | | | | | | | | |

## 7. Aspect Differences Near MLRA Boundaries

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

## 8. Associated Sites Within MLRA

034XY259UT
Semidesert Very Steep Shallow Loam (Utah juniper-Pinyon)

## 9. Correlated Sites in Other States

(Give site name and number)

# D. MAJOR USES OF THIS SITE

## 1. Livestock

a. Site Factors Influencing Management

Because of steep slopes this site is used very little for livestock grazing.

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 jackrabbit, woodrat, hawk, coyote, 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

Recreation potential is very low because the slopes are steep.

## 4. Wood Products

Wood production is about 3 cords per acre. The site index is 25 to 30.

**5. Other Uses**

## E. THREATENED AND ENDANGERED SPECIES

1. Plants

2. Animals

## F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
Latitude: Longitude:

Modal Soil: Thedalund Family Moist — fine-loamy, mixed calcareous, mesic Ustic Torriorthents

Type Location: Consult the Grand County Soil Survey Report.

General Legal Description:

**Field Office Site Location**
Roosevelt
Price

**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**