

# Major Land Resource Area 048A Southern Rocky Mountains

Accessed: 06/02/2026

---

## Ecological site group keys

### MLRA 48A ESGs - Curtis strawman

---

#### I. Aquic Moisture Regime

##### A. Cryic Temperature Regime

1 Mineral Soil - 117 soil components ... ESG048A01 – Aquic Cryic Mineral

2 Organic Soil - 43 soil components ... ESG048A02 – Aquic Cryic Organic

B. Frigid Temperature Regime - 48 soil components ... ESG048A03 – Aquic Frigid

#### II. Udic Moisture Regime

A. Pergelic Temperature Regime - 13 soil components ... ESG048A04 – Udic Pergelic

##### B. Cryic Temperature Regime

1 Sandy Surface Texture - 24 soil components ... ESG048A05 – Udic Cryic Sandy

2 Loamy Surface Texture

i. No coarse fragments on the surface - 764 soil components ... ESG048A06 – Udic Cryic Loamy

ii. Gravelly Surface - 450 soil components ... ESG048A07 – Udic Cryic Gravelly

iii. Coarse fragments larger than gravel on the surface - 699 soil components ... ESG048A08 – Udic Cryic Stony

C. Frigid Temperature Regime - 372 soil components ... ESG048A09 – Udic Frigid

#### III. Ustic Moisture Regime

##### A. Cryic Temperature Regime

1 No coarse fragments on the surface - 187 soil components ... ESG048A10 – Ustic Cryic

2 Coarse fragments on the surface - 174 soil components ... ESG048A11 – Ustic Cryic Gravelly

##### B. Frigid Temperature Regime

1 No coarse fragments on the surface - 497 soil components ... ESG048A12 – Ustic Frigid

2 Coarse fragments on the surface - 708 soil components ... ESG048A13 – Ustic Frigid Gravelly

C. Mesic Temperature Regime - 87 soil components ... ESG048A14 – Ustic Mesic

#### IV. Aridic Moisture Regime

A. Frigid Temperature Regime - 74 soil components ... ESG048A15 – Aridic Frigid

B. Mesic Temperature Regime - 38 soil components ... ESG048A16 – Aridic Mesic

**I. Additional water**

**A. Perennial water - 109 soil components ... ESG048A17 – Riparian**

**B. Ephemeral water**

**1 Subsurface EC >4 - 28 soil components ... ESG048A18 – Saline Bottoms**

**2 Subsurface EC <4**

**i. Sand >50% & Clay <25% for surface and subsurface - 9 soil components ... ESG048A19 – Sandy Bottoms**

**ii. Sand <50% & Clay >25% for surface and subsurface - 89 soil components ... ESG048A20 – Bottoms**

**II. Uplands**

**A. >75% bedrock outcrop - 527 soil components ... ESG048A21 – Outcrops**

**B. <75% bedrock outcrop**

**1 Surface SAR >8, or Subsurface EC >8, or Surface EC >4 - 93 soil components ... ESG048A22 – Saline Hills**

**2 Surface SAR <8, or Subsurface EC <8, or Surface EC <4**

**i. Gypsum >5% surface or >10% subsurface - 27 soil components ... ESG048A23 – Gypsum**

**ii. Gypsum <5% surface and <10% subsurface**

**a. EC >1.5 surface or >2 subsurface - 42 soil components ... ESG048A24 – Saline Uplands**

**b. EC <1.5 surface or <2 subsurface**

**1) slope >35% & >40% surface rock - 34 soil components ... ESG048A25 – Breaks**

**2) slope <35% or <40% surface rock**

**a) Depth <30cm - 1211 soil components ... ESG048A26 – Very Shallow**

**b) depth: 30-55cm - 717 soil components ... ESG048A27 – Shallow**

**c) depth >55cm**

**(1) Rock >30% surface or >30% subsurface - 628 soil components ... ESG048A28 – Deep Rocky**

**(2) Rock <30% surface and <30% subsurface**

**(a) Clay >30% surface or >35% subsurface - 655 soil components ... ESG048A29 – Clay Uplands**

**(b) Clay <30% surface and <35% subsurface**

**(1) sand >75% or texture is Loamy Sand or sandier in surface & subsurface - 21 soil components ... ESG048A30 – Sandy Uplands**

**(2) sand <75% or texture is Loamy Fine Sand or finer in surface & subsurface**

**(a) Clay <20% or texture is Sandy Loam or sandier in surface - 993 soil components ... ESG048A31 – Loamy Uplands**

**(b) Clay >20% or texture is Fine Sandy Loam or finer in surface - 977 soil components ... ESG048A32 – Finer Uplands**

### 3rd Iteration

---

#### I. Additional water

##### A. Perennial water

1 Mineral soil surface - 68 soil components ... ESG048A33 – Mineral Riparian

2 Organic soil surface - 40 soil components ... ESG048A34 – Organic Riparian

##### B. Ephemeral water

1 Subsurface EC >4 - 28 soil components ... ESG048A18 – Saline Bottoms

2 Subsurface EC <4 - 98 soil components ... ESG048A20 – Bottoms

#### II. Uplands

A. >75% bedrock outcrop - 527 soil components ... ESG048A21 – Outcrops

##### B. <75% bedrock outcrop

1 Surface SAR >8, subsurface EC >8, or surface EC >4, and soil moisture regime udic or ustic - 64 soil components ...  
ESG048A22 – Saline Hills

2 (Gypsum >5% surface or >10% subsurface) OR (surface SAR >8 or subsurface EC >8 or surface EC >4 AND soil moisture regime is aridic) - 56 soil components ... ESG048A35 – Arid/Gypsic Saline Hills

3 Gypsum <5% surface, gypsum <10% subsurface, surface SAR <8, subsurface EC <8, and surface EC <4.

i. EC >1.5 surface or >2 subsurface - 42 soil components ... ESG048A24 – Saline Uplands

ii. EC <1.5 surface or <2 subsurface

a. slope >35% & >40% surface rock AND soil moisture regime of Udic or Ustic - 34 soil components ... ESG048A25  
– Breaks

b. Depth <30 cm AND soil moisture regime of Udic or Ustic - 1170 soil components ... ESG048A26 – Very  
Shallow

c. Depth: 30-55 cm AND soil moisture regime of Udic or Ustic - 694 soil components ... ESG048A27 – Shallow

d. Rock >30% surface or >30% subsurface AND soil moisture regime of Udic or Ustic - 621 soil components ...  
ESG048A28 – Deep Rocky

e. Slope, rock, or depth meeting one of the four criteria above, but with an Aridic soil moisture regime - 71 soil components  
... ESG048A36 – Aridic Shallow or Rocky

f. Soil not steep, rocky, or shallow

1) Clay >30% surface or >35% subsurface AND Udic soil moisture regime - 216 soil components ... ESG048A37  
– Udic Clay Uplands

2) Clay >30% surface or >35% subsurface AND Ustic soil moisture regime - 370 soil components ... ESG048A38  
– Ustic Clay Uplands

3) Clay >30% surface or >35% subsurface AND Aridic soil moisture regime - 69 soil components ... ESG048A39  
– Aridic Clay Uplands

4) Clay >30% surface or >35% subsurface

**a) sand >75% or texture is loamy sand or sandier in surface & subsurface - 21 soil components ...**

ESG048A30 – Sandy Uplands

**b) sand <75% or texture is Loamy Fine Sand or finer in surface & subsurface**

**(1) Clay <20% or texture is Sandy Loam or sandier in surface - 993 soil components ... ESG048A31 –**

Loamy Uplands

**(2) Clay >20% or texture is Fine Sandy Loam or finer in surface AND Udic soil moisture regime - 411 soil components ... ESG048A40 – Udic Finer Uplands**

**(3) Clay >20% or texture is Fine Sandy Loam or finer in surface AND Ustic soil moisture regime - 343 soil components ... ESG048A41 – Ustic Finer Uplands**

**(4) Clay >20% or texture is Fine Sandy Loam or finer in surface AND Aridic soil moisture regime - 96 soil components ... ESG048A42 – Aridic Finer Uplands**