

# Ecological site group ESG048A21

## Outcrops

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### Key Characteristics

- Uplands
- >75% bedrock outcrop - 527 soil components
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Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

### Physiography

This ESG is located on mountain slopes and ridges.

### Soil features

This ESG is characterized by >75% bedrock outcrop.

### Vegetation dynamics

The modal ecological site for this ESG is R048AY229CO - Rocky Loam.

### Major Land Resource Area

MLRA 048A  
Southern Rocky Mountains

### Subclasses

- R048AY229CO–Rocky Loam

### Correlated Map Unit Components

21057635, 21057921, 21057642, 21057874, 21057683, 21057793, 21232311, 21232369, 21232382, 21232371, 21232402, 21232294, 21232332, 21232322, 21232355, 21232286, 21345048, 21345304, 21345074, 21345309, 21343811, 21343928, 21344173, 21343954, 21344003, 21287130, 21287123, 21287153, 21287141, 21287103, 21286274, 21286280, 21286291, 21286373, 21286376, 21286499, 21286512, 21285986, 21286106, 21286140, 21285315, 21285318, 21285406, 21285381, 21285366, 21285412, 21285384, 21285451, 21285460, 21285227, 21285192, 21359561, 21359604, 21359518, 21359571, 21359573, 21359484, 21359474, 21359537, 21359613, 21359538, 21284883, 21284865, 21284839, 21285074, 21285093, 21285123, 21284853, 21284879, 21284928, 21284977, 21284860, 21284917, 21284989, 21285106, 21284886, 21284993, 21285096, 21285081, 21285062, 21285112, 21284913, 21284969, 21284327, 21284224, 21284268, 21284214, 21284284, 21284339, 21284301, 21284274, 21284306, 21284347, 21284328, 21284370, 21284378, 21284332, 21284336, 21284251, 21284419, 21284407, 21284394, 21284382, 21284276, 21284345, 21284367, 21284385, 21262211, 21262273, 21262233, 21262281, 21262479, 21262425, 21262403, 21281945, 21256075, 21256203, 21256230, 21256289, 21256456, 21256391, 21256480, 21664143, 21664007, 21663976, 21664083, 21663977, 21664056, 21663988, 21664226, 21664171, 21664223, 21664137, 21664049, 21664249, 21664009, 21664094, 21664213, 21664028, 21664012, 21276846, 21276831, 21276892, 21276886, 21276744, 21272858, 21272902, 21272921, 21272953, 21272987,

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## Stage

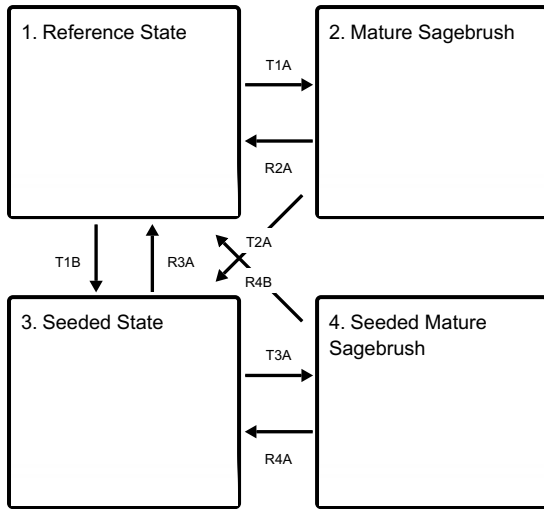
Provisional

## Contributors

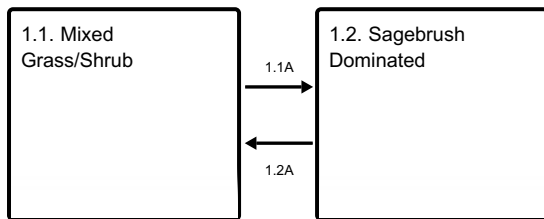
Travis Nauman

## State and transition model

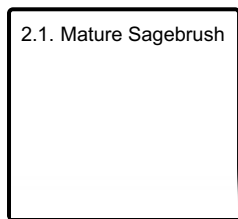
## Ecosystem states



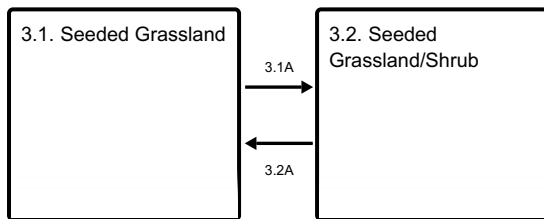
## State 1 submodel, plant communities



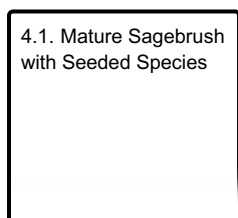
## State 2 submodel, plant communities



## State 3 submodel, plant communities



## State 4 submodel, plant communities



## State 1 Reference State

### Community 1.1 Mixed Grass/Shrub

Western wheatgrass, bluebunch wheatgrass, prairie junegrass, big sagebrush, other grasses, forbs, and shrubs. Shrub canopy cover is low.

## **Community 1.2**

### **Sagebrush Dominated**

Dominant shrub big sagebrush. Reduced understory & litter. Shrub canopy cover is high.

### **Pathway 1.1A**

#### **Community 1.1 to 1.2**

extended improper grazing, lack of fire, extended drought, time without disturbance, and/or lack of insect/pathogen outbreaks

### **Pathway 1.2A**

#### **Community 1.2 to 1.1**

fire, proper grazing, wet climatic cycles, vegetation treatments, and/or small scale insect/pathogen outbreaks

## **State 2**

### **Mature Sagebrush**

### **Community 2.1**

#### **Mature Sagebrush**

Old stands of big sagebrush with high canopy cover. Very sparse understory. Grasses located under shrubs.

## **State 3**

### **Seeded State**

### **Community 3.1**

#### **Seeded Grassland**

Seeded grass species and other pioneering native grasses, shrubs, and forbs.

### **Community 3.2**

#### **Seeded Grassland/Shrub**

Seeded grass species. Shrubs (high canopy cover). Pioneering native grasses and forbs.

### **Pathway 3.1A**

#### **Community 3.1 to 3.2**

extended improper grazing, lack of fire, extended drought, time without disturbance, and/or lack of insect/pathogen outbreaks

### **Pathway 3.2A**

#### **Community 3.2 to 3.1**

fire, proper grazing, wet climatic cycles, vegetative treatments, and/or small scale insect/pathogen outbreaks

## **State 4**

### **Seeded Mature Sagebrush**

### **Community 4.1**

#### **Mature Sagebrush with Seeded Species**

Old stands of big sagebrush with high canopy cover. Very sparse understory. Grasses located under shrubs.

## **Transition T1A**

### **State 1 to 2**

extended improper grazing, lack of fire, extended drought, time without disturbance, and/or lack of insect/pathogen outbreaks

## **Transition T1B**

### **State 1 to 3**

seeded herbaceous species plants and/or shrub removal

## **Restoration pathway R2A**

### **State 2 to 1**

fire, vegetation treatments, insect herbivory, drought, proper grazing, and/or encroached shrub removal

## **Transition T2A**

### **State 2 to 3**

seeded herbaceous species planted and/or shrub removal

## **Restoration pathway R3A**

### **State 3 to 1**

intensive management and inputs may be required to return to reference state, wet climatic years, native plantings, vegetative treatments, proper grazing, and/or fire

## **Transition T3A**

### **State 3 to 4**

extended improper grazing, lack of fire, extended drought, time without disturbance, and/or lack of insect/pathogen outbreaks

## **Restoration pathway R4B**

### **State 4 to 1**

intensive management and inputs may be required to return to reference state, wet climatic years, native plantings, vegetative treatments, proper grazing, and/or fire

## **Restoration pathway R4A**

### **State 4 to 3**

fire, proper grazing, wet climatic cycles, small scale insect/pathogen outbreaks, seeding, and/or vegetative treatments

## **Citations**