

## **APPENDIX 6—CHARACTERISTICS OF OLD-GROWTH FORESTS—BLM PINEDALE FIELD OFFICE**

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Old growth forests are ecosystems distinguished by old trees and related structural features. Old growth encompasses the later stages of stand development that typically differs from earlier stages in several ways, including tree size, accumulation of large dead woody material, number of canopy layers, species composition, and ecosystem function.

Old growth is typically distinguished by the following:

- Large trees of specific species
- Wide variation in age classes and stocking levels
- Accumulations of large dead standing and fallen trees
- Decadence in the form of broken or deformed tops and boles
- Multiple canopy layers
- Canopy interspaces and under story patchiness.

The following are descriptions of old growth forests by species type. Tables were extracted from Hamilton, R.G. compiler, 1993. United States Department of Agriculture (USDA) Forest Service Intermountain Region 4, Ogden, Utah for BLM Wyoming planning purposes.

### **ENGELMANN SPRUCE—SUBALPINE FIR; SOCIETY OF AMERICAN FORESTERS (SAF) COVER TYPE 206**

#### **Live Trees (Warm/Moist Environment)**

Diameter at Breast Height (DBH): > or equal 20"

Trees/Acre: > or equal 25

Age: > or equal 220

Variation in Tree Diameter: Yes

Tree Decadence: Evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: Yes

#### **Dead Trees (Warm/Moist Environment)**

Standing DBH/ht ft: > or equal 12/15

Standing Trees/Acre: > or equal 2

Down Diameter (in): > or equal 12

Down Pieces/Acre—length in ft: > or equal 1–8

#### **Live Trees (Cold/Dry Environment)**

DBH: > or equal 15"

Trees/Acre: > or equal 15

Age: > or equal 150 to 180

Variation in Tree Diameter: Yes

Tree Decadence: > or equal 2; DBH 14; Evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: Yes

**Dead Trees (Cold/Dry Environment)**

Standing DBH/ht ft: > or equal 10/15

Standing Trees/Acre: 2 to 4

Down Diameter (in): > or equal 8 or > 6

Down Pieces/Acre—length in ft: > or equal 16 – 8 ft or 100 pieces > 8 feet

**DOUGLAS-FIR; SAF COVER TYPE 210****Live Trees (Higher Productivity Site)**

DBH: 24”

Trees/Acre: > or equal 15

Age: > or equal 200

Variation in Tree Diameter: Yes

Tree Decadence: Evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: Yes

**Dead Trees (Higher Productivity Site)**

Standing DBH/ht ft: > or equal 20/20

Standing Trees/Acre: > or equal 1

Down Diameter (in): > or equal 12

Down Pieces/Acre—length in ft: > or equal 0 - 16

**Live Trees (Lower Productivity Site)**

DBH: 18”

Trees/Acre: 10

Age: > or equal 200

Variation in Tree Diameter: Yes

Tree Decadence: > or equal 2; DBH 15; Evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: Yes

**Dead Trees (Lower Productivity Site)**

Standing DBH/ht ft: 16/10

Standing Trees/Acre: 0 to 3

Down Diameter (in): > or equal 15

Down Pieces/Acre—length in ft: Infrequent 4 - > or equal 8

**LOGEPOLE PINE; SAF COVER TYPE 218****Live Trees**

DBH: > or equal 11”

Trees/Acre: > or equal 25

Age: > or equal 140

Variation in Tree Diameter: Yes

Tree Decadence (trees per acre [TPA]-DBH): > or equal 2–11; evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: Yes

### **Dead Trees**

Standing DBH/ht ft: > or equal 11

Standing Trees/Acre: 5

Down Diameter (in): > or equal 11

Down Pieces/Acre—length in ft: > or equal 50 - > or equal 8

## **LIMBER PINE; SAF COVER TYPE 219**

### **Live Trees (Lower Timberline)**

DBH: > or equal 16

Trees/Acre: > or equal 10

Age: > or equal 250

Variation in Tree Diameter: Yes

Tree Decadence: Evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: Yes

### **Dead Trees (Lower Timberline)**

Standing DBH/ht ft: N/A

Standing Trees/Acre: Few

Down Diameter (in): N/A

Down Pieces/Acre—length in ft: Rare

### **Live Trees (Montaine Woodlands)**

DBH: > or equal 1

Trees/Acre: 10

Age: > or equal 500

Variation in Tree Diameter: Yes

Tree Decadence: Evident dead, broken, or deformed tops and/or bole or root rot

Multiple Tree Canopy Layers: No

### **Dead Trees (Lower Productivity Site)**

Standing DBH/ht ft: N/A

Standing Trees/Acre: Few

Down Diameter (in): N/A

Down Pieces/Acre—length in ft: Rare

## **ASPEN; SAF COVER TYPE 217**

### **Live Trees**

DBH: > or equal 12"

Trees/Acre: > or equal 10 dry—20 mesic  
Age: 100  
Variation in Tree Diameter: Yes  
Tree Decadence (TPA-DBH): N/A  
Multiple Tree Canopy Layers: Yes

#### **Dead Trees**

Standing DBH/ht ft: > or equal 10/15  
Standing Trees/Acre: 2  
Down Diameter (in): > or equal 8  
Down Pieces/Acre—length in ft: > or equal 10–10

## **ROCKY MOUNTAIN JUNIPER; SAF COVER TYPE 220**

Note: Extrapolated old growth characteristics from Pinyon-Juniper old growth characteristics.

#### **Live Trees**

DBH: 12”  
Trees/Acre: 12  
Age: 200  
Variation in Tree Diameter: Yes  
Tree Decadence (TPA-DBH): N/A  
Multiple Tree Canopy Layers: N/A

#### **Dead Trees**

Standing DBH/ht ft: 12/5  
Standing Trees/Acre: > or equal .05  
Down Diameter (in): > or equal 10  
Down Pieces/Acre—Length in ft: > or equal 2–5