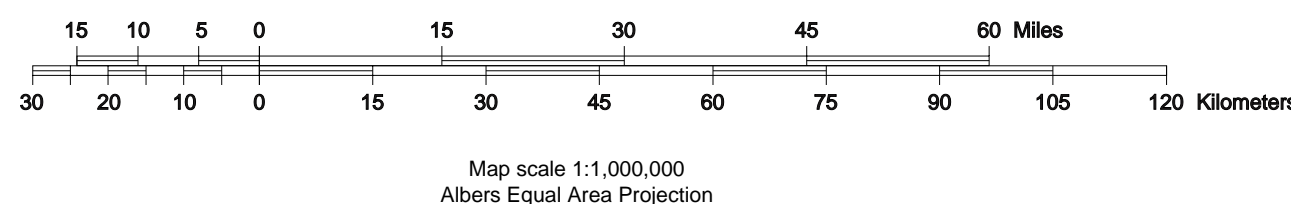
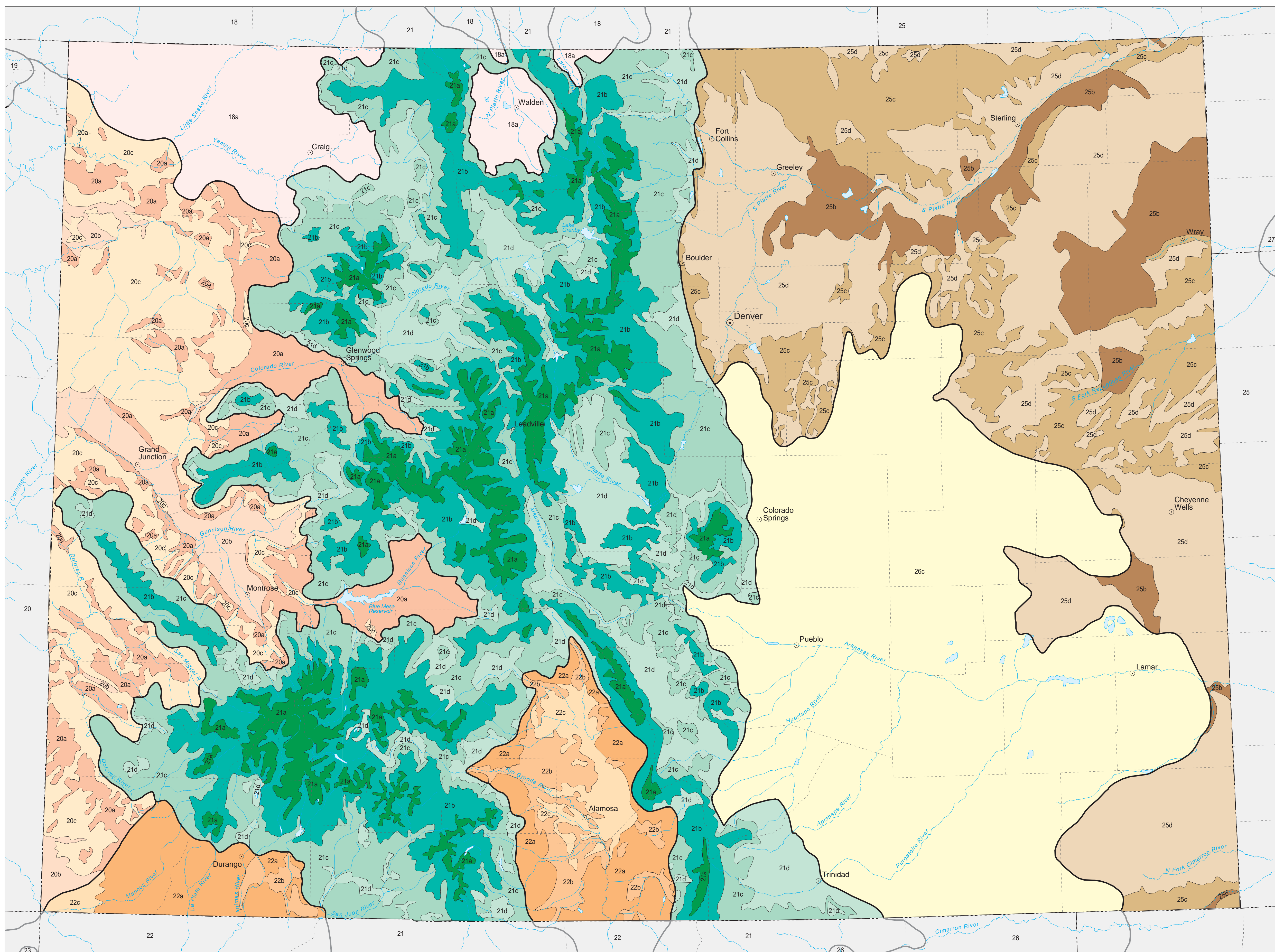


# Ecological Subregions of Colorado

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## 18 Wyoming Basin

### 18a Semiarid to Arid Shrublands

**CLIMATE** - Semiarid to arid. Much of subregion receives less than 300mm annually, but, in entirety, the area receives less than 400mm (drier in Wyoming, precipitation averaging 175mm in some areas). Precipitation mainly in spring and fall.

**PHYSIOGRAPHY** - Irregular basin terrain with isolated mountains and plateaus. Local relief generally greater than 30m, often greater than 120m (steep side slopes of uplands can have 180m of local relief).

**LAND USE** - Extremely low density rangeland for beef cattle and sheep.

**VEGETATION** - Widely scattered shrubs. Sagebrush-dominated shrublands include big sagebrush mixed with various shortstem grasses (e.g., wheatgrass, needle-and-thread, Indian ricegrass). Saltbush-dominated shrublands include saltbushes, greasewood, various shortstem grasses. Rocky Mountain juniper and piñon pine on some uplands.

**SOILS** - Entisols.

### 20 Colorado Plateaus

#### 20a Desert Shrublands

**CLIMATE** - Semiarid to arid. 200 to 400mm precipitation over most of subregion, a few areas up to 500mm.

**PHYSIOGRAPHY** - Irregular plains to tablelands with local relief commonly between 200 to 300 m.

**LAND USE** - Rangeland. Of three Colorado Plateau subregions, this generally best for grazing, but quality still low.

**VEGETATION** - Sagebrush shrubland; includes big sagebrush, rabbitbrush, assorted drought-resistant grasses (e.g., wheatgrass, Indian ricegrass, bluegrass).

**SOILS** - Aridisols and Entisols.

#### 20b Salt deserts

**CLIMATE** - Arid. Less than 250mm precipitation annually, mostly in fall and spring.

**PHYSIOGRAPHY** - Nearly level to irregular valley floors.

**LAND USE** - Mostly rangeland for beef cattle and sheep. Irrigated agriculture concentrated in river valleys where there is perennial stream flow from neighboring mountainous ecoregions. Orchard crops (apples, peaches, pears, cherries), hay, grain, and vegetables (e.g., onions, beans) cultivated in these valleys.

**VEGETATION** - Saltbush shrubland; includes saltbush, greasewood, rabbitbrush, horsebrush, grasses (Indian ricegrass, galleta).

**SOILS** - Aridisols and Entisols.

#### 20c Wooded Uplands

**CLIMATE** - Semiarid to arid. 200 to 400mm precipitation over most of subregion, greater than 600mm around Douglas Pass in Garfield County, Colorado.

**PHYSIOGRAPHY** - Tablelands; local relief often from 200 to 300m.

**LAND USE** - Rangeland for beef cattle and sheep. Of three Colorado Plateau subregions, this generally worst for grazing (rockiest terrain, farthest from surface water supply, lowest concentration suitable forage).

**VEGETATION** - Juniper and piñon pine woodland. Grass and shrub understory includes wheatgrass, Indian ricegrass, grama, sagebrush.

**SOILS** - Aridisols and Entisols.

## 21 Southern Rockies

### 21a High Elevation Tundra

**CLIMATE** - Cold, humid to arid. Annual precipitation from 750-1500mm, mostly as snow, but much is removed by strong winds.

**PHYSIOGRAPHY** - Mountaintops. Local relief 300-600m.

**LAND USE** - Wildlife habitat, recreation. Use limited by inaccessibility most of year (snow-free only 4-6 weeks, some portions perennially covered).

**VEGETATION** - Above treeline (starting around 3,300-3,600m elevation) vegetation such as low growth shrubs, cushion plants, and forbs. Forest-tundra interface sparsely colonized by stunted, deformed Engelmann spruce, subalpine fir, timber pine, and bristlecone pine.

**SOILS** - Periglacial Cryobrempts and Cryochpts, formed largely from crystalline rocks, rock outcrops.

### 21b Cool and Moist Forests of the Middle to High Elevations

**CLIMATE** - Cool humid. 750-1000mm annual precipitation for most of subregion, mainly as snow, remaining on ground well into summer months.

**PHYSIOGRAPHY** - Steep, forested slopes of Rocky Mountains from about 2,700-3,300m elevation. Local relief steep, often 300 to 600 or more meters.

**LAND USE** - Wildlife habitat, recreation, and mineral extraction. Grazing limited by climatic conditions, lack of forage vegetation, and inaccessibility from excessively steep terrain and lingering snowpack.

**VEGETATION** - Dense forests dominated by Engelmann spruce and subalpine fir; some areas locally dominated by aspen. Sparse forest understory.

**SOILS** - Rock outcrops, Cryoboralls and Haploboralls weathered from a variety of crystalline and sedimentary materials.

### 21c Warm and Dry Forests of the Middle to Low Elevations

**CLIMATE** - Warm, dry. Around 400-750mm annual precipitation, as snow and rain. Snow-free period at least four months.

**PHYSIOGRAPHY** - Lower to mid-elevation (1,700-2,700m) mountain slopes. Steep local relief, 300-400m.

**LAND USE** - Livestock grazing, wildlife habitat, mineral extraction, recreation.

**VEGETATION** - Variety of communities: aspen, Douglas-fir, ponderosa pine, Gambel oak, and piñon pine - juniper woodlands.

**SOILS** - Borolls, Boralfs. Derived from variety of crystalline and sedimentary rocks under variety of conditions existing between cold, humid, high elevation forests and warm, semiarid, low elevation shrubs and grasslands.

### 21d Low to Middle Elevation Semi-desert Shrublands

**CLIMATE** - Semiarid. 300-400mm annual precipitation.

**PHYSIOGRAPHY** - Rolling to irregular terrain of lower to mid-elevation mountains. Local relief 60-300m.

**LAND USE** - Grazing. Areas adjacent to large perennial streams irrigated.

**VEGETATION** - Shrubland of greasewood, four-winged saltbush, shadscale, and sagebrush, often interspersed with grasses.

**SOILS** - Borolls. Derived from variety of sedimentary and crystalline rocks.

## 22 Arizona/New Mexico Plateau

### 22a Shrublands

**CLIMATE** - Semiarid, 230-450mm annual precipitation.

**PHYSIOGRAPHY** - Irregular plains, moderate to high relief plateaus, and open, low mountains. Local relief from 30m on irregular plains, to 300m or more near high tablelands.

**LAND USE** - Low density livestock grazing. Mostly beef cattle and sheep.

**VEGETATION** - Communities range from shrublands of big sagebrush, rabbitbrush, and winterfat to grasslands of western wheatgrass, green needlegrass, blue grama, and needle-and-thread.

**SOILS** - Mostly Argids, also Psammaquents and Orthents.

### 22b Irrigated Flatlands

**CLIMATE** - Arid. 200mm or less annual precipitation.

**PHYSIOGRAPHY** - Flat to low relief plains. Local relief minimal to a few meters.

**LAND USE** - Irrigated agriculture. Main crops include: barley, malt, alfalfa, small grains, hay, Irish potatoes, and a few other assorted vegetables.

**VEGETATION** - Originally shrublands dominated by shadscale saltbush and greasewood. Natural vegetation removed for cropland acreage.

**SOILS** - Mostly Argids, also Psammaquents and Orthents.

### 22c Salt deserts

**CLIMATE** - Arid.

**PHYSIOGRAPHY** - Irregular plains of low to moderate relief. Local relief from several meters, to tens of meters, to 60m.

**LAND USE** - Low to very low density livestock grazing. Mostly beef cattle and sheep.

**VEGETATION** - Shrublands dominated by shadscale saltbush and greasewood; sagebrush, horsebrush, spiny hopsage, rabbitbrush, saltgrass and alkali sacaton also occur.

**SOILS** - Mostly Argids, also Psammaquents and Orthents.

## 25 Western High Plains

### 25b Rolling Sand Plains

**CLIMATE** - Semiarid. 200-300mm annual precipitation.

**PHYSIOGRAPHY** - Sandy hills. Local relief often around 15m.

**LAND USE** - Rangeland. Small plots of irrigated agriculture scattered throughout subregion where reliable groundwater supplies occur.

**VEGETATION** - Sand reed, bluestem, sand dropseed and sand sage.

**SOILS** - Ustic Torripsamments formed from eolian deposits.

### 25c Moderate Relief Rangeland

**CLIMATE** - Semiarid. 200-300mm annual precipitation.

**PHYSIOGRAPHY** - Irregular plains. Local relief usually from 15 to 30m, sometimes 45m.

**LAND USE** - Rangeland.

**VEGETATION** - Mainly blue grama, often with western wheatgrass, galleta, alkali sacaton and four-wing saltbush interspersed.

**SOILS** - Ustolls. Some Aridisols. Formed from sediments.

### 25d Flat to Rolling Cropland

**CLIMATE** - Semiarid. 200-300mm annual precipitation.

**PHYSIOGRAPHY** - Rolling plains. Local relief a few to 15m.

**LAND USE** - Dryland agriculture.

**VEGETATION** - Mainly blue grama, often with western wheatgrass, galleta, alkali sacaton and four-wing saltbush interspersed.

**SOILS** - Ustolls.

### 26 Southwestern Tablelands

#### 26c Grasslands

**CLIMATE** - Semiarid. Much of area in Colorado receives 300-400mm precipitation. Large area in west central portion receives less than 300mm.

**PHYSIOGRAPHY** - Irregular plains and tablelands of moderate local relief, generally between 15-30m.

**LAND USE** - Rangeland. Exception occurs along Arkansas River where perennial water supply and sufficiently flat terrain coincide.

**VEGETATION** - Mainly blue grama, often with western wheatgrass, galleta, alkali sacaton, four-wing saltbush, sand dropseed, three-awn, sand reed, bluestem, sideoats grama, and yucca interspersed.

**SOILS** - Ustollic Haplargids and Camborthids, Ustic Torriorthents.

