

Major Land Resource Area 034A

Cool Central Desertic Basins and Plateaus

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Ecological site keys

34A Colorado

- I. Site in a lowland position (bottom) that receives significant additional moisture from runoff of adjacent slopes or intermittent/perennial streams or a water table
- A. Water table is present or signs of a water table during some portion of the year may be present.
 - 1 Site adjacent to perennial or intermittent streams, with moderate to excessive drainage, and fluctuating 24-60", within 36" (rooting depth of woody plants, but not herbaceous plants) during some of the growing season ... R034AY236CO – Riverbottom
 - 2 Surface textures range from sandy loam to light silty clay loam (if redox features are present they are below 40" (100cm)) ... R034AY421CO – Cold Desert Overflow
 - B. No indications of a water table, low depressional areas or swales.
 - 1 In foothills at higher precipitation ... R034AY285CO – Foothill Swale
 - 2 Silt loams to silty clay soil textures, lower precipitation. ... R034AY433CO – Silty Swale
- II. Upland position, or sights receiving no additional moisture.
- A. Soil depth very shallow (<10" (25cm)), shallow (10-20" (25-50cm)) OR moderately deep to deep (>20" (>50cm))
 - 1 Shallow due to sedimentary bedrock or a root restricting layer. Not fractured bedrock.
 - i. Bedrock is soft or hard clay shale bedrock that may be saline, occurs in upland position on moderately to steeply sloping land (5-25% slope) ... R034AY430CO – Shale
 - ii. Well-drained fine sandy loam to silty loams over sedimentary bedrock or loams with root restricting layer (i.e. rock layer and/or similar layer) ... R034AY431CO – Shallow Loamy 10-14 PZ
 - 2 Fractured sedimentary bedrock at 10-20" (25-50cm) with gravel, cobble, stone, and angular fragments on the surface and throughout soil profile, inclusions of very shallow to deep pockets of soil, with Loamy well drained soils.
 - i. Commonly on south & west facing slopes, lower precipitation, in the Cold Desert LRU. ... R034AY420CO – Cold Desert Breaks
 - ii. Higher precipitation, foothills. ... R034AY300CO – Loamy Breaks
 - B. Soil depth moderately deep to deep (>20" (50cm)) without root restricting layer that inhibits the productivity potential
 - 1 Site affected by soil chemistry (salinity, sodicity, and/or calcium carbonates) within the rooting depth of herbaceous plants
 - i. Surface textures range from sandy loam to clay loam, moderately saline or greater (>8mmhos/cm), or sodic (SAR >13, EC <4mmhos) ... R034AY418CO – Alkali Upland
 - ii. Soils very fine sandy loams to sandy clay loams, violent effervescence (>15%CCE) at the soil surface, in the Cold Desert LRU. ... R034AY423CO – Limy Cold Desert
 - 2 Sites are not affected by soil chemistry
 - i. Precipitation less than 10" (includes the 9-11" breaks)
 - a. Soils are fine sandy loam or coarser in texture (less than 18% clay)

- 1) Excessively drained soils that are very coarse (loamy sand to sand), on nearly level to rolling uplands or dunes, dark or light colored ... R034AY434CO – Dry Sandy
 - 2) Soils loamy fine sand to fine sandy loam, in the Cold Desert LRU. ... R034AY428CO – Sandy Cold Desert
- b. Soils are well-drained site with <6" (15cm) sandy loam surface layer over sandy clay loam or clay loam is included)
- 1) Temperature is lower and productivity slightly less, in the Cold Desert LRU. ... R034AY426CO – Loamy Cold Desert
 - 2) Productivity potential is high ... R034AY424CO – Loamy 7-10 PZ
- ii. Precipitation greater than 10"
- a. Silty clay loam and clay loams soil cracking common during dry summer months, though not severe (>36% clay in subsurface) ... R034AY246CO – Clayey Slopes
 - b. Soils less than 36% clay in the subsurface.
 - 1) Soils with Loamy sand to fine sandy loam textures
 - a) Excessively drained soils that are very coarse (loamy sand to sand), on nearly level to rolling uplands or dunes ... R034AY293CO – Sandhills
 - b) Soils loamy fine sand to fine sandy loam
 - (1) Slope greater than 30% ... R034AY331CO – Sandy Slopes
 - (2) Slope less than 30% ... R034AY330CO – Sandy Land
 - 2). Productivity potential is high, well-drained site, sandy loam surface layer over sandy clay loam or clay loam
 - a) Slopes greater than 30% ... R034AY303CO – Loamy Slopes
 - b) Slopes less than 30% ... R034AY298CO – Rolling Loam