

Major Land Resource Area 035X

Colorado Plateau

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Ecological site group keys

35X01 Central Colorado Plateau LRU

I. Grand Staircase-Kaiparowits

A. Bottoms and Flats

- 1 Extra water is from perennial or intermittent streamflow ... DX035X01AESG01 – Grand Staircase-Bottoms & Flats-Streamflow
- 2 Extra water is from run-in or local water table ... DX035X01AESG02 – Grand Staircase-Bottoms & Flats-run in

B. Outcrops and Slopes

- 1 Soils are shallow to bedrock ... DX035X01AESG03 – Grand Staircase-Outcrops & Slopes-Shallow Soils
- 2 Soils are moderately deep or deeper ... DX035X01AESG04 – Grand Staircase-Outcrops & Slopes-Soils mod deep or deeper

C. Saline Hills and Badlands

- 1 Soil parent material is dominantly gypsiferous ... DX035X01AESG05 – Grand Staircase-Saline Hills & Badlands-Gypsiferous Parent Material
- 2 Soil parent material is dominated by salts other than gypsum ... DX035X01AESG06 – Grand Staircase-Saline Hills & Badlands-Salts other than Gypsum

D. Saline Uplands and Flats

- 1 Soils are sandy loams ... DX035X01AESG07 – Grand Staircase-Saline Uplands & Flats-Sandy loam soils
- 2 Soils are loams to clays ... DX035X01AESG08 – Grand Staircase-Saline Uplands & Flats-Loam to Clay soils

E. Shallow Soil Shrublands and Woodlands

- 1 Soil parent material is volcanic cinders ... DX035X01AESG09 – Grand Staircase-Shallow Soils Shrub & Woodlands-Volcanic Cinders
- 2 Soil parent material is not volcanic cinders
 - i. Soils are sandy ... DX035X01AESG10 – Grand Staircase-Shallow Soils Shrub & Woodlands-Not Volcanic PM-Sandy Soils
 - ii. Soils are sandy loams ... DX035X01AESG11 – Grand Staircase-Shallow Soils Shrub & Woodlands-Not Volcanic PM-Sandy Loam Soils
 - iii. Soils are loams to clays ... DX035X01AESG12 – Grand Staircase-Shallow Soils Shrub & Woodlands-Not Volcanic PM-Loam to Clay Soils

F. Sandy Grasslands and Shrublands

- 1 Soils are sands ... DX035X01AESG13 – Grand Staircase-Sandy Grass & Shrub Lands-Soils are Sands
- 2 Soils are sandy loams ... DX035X01AESG14 – Grand Staircase-Sandy Grass & Shrub Lands-Sandy Loam Soils

G. Loam Soils Shrublands

- 1 Soils are gravelly ... DX035X01AESG15 – Grand Staircase-Loam Soils Shrublands-Gravelly Soils
- 2 Soils are generally free of rock fragments ... DX035X01AESG16 – Grand Staircase-Loam Soils Shrublands

H. Deep Rocky Soils

- 1 Low elevation MAST>54 degrees F ... DX035X01AESG17 – Grand Staircase-Deep Rocky-Low Elevation
- 2 Mid elevation MAST<54 degrees F ... DX035X01AESG18 – Grand Staircase-Deep Rocky-Mid Elevation

II. Circle Cliffs

A. Bottoms and Flats

- 1 Extra water is from perennial or intermittent streamflow ... DX035X01BESG01 – Circle Cliffs - Bottoms and Flats - riparian
- 2 Extra water is from run-in or local water table
 - i. Soils are sodic ... DX035X01BESG02 – Circle Cliffs - Bottoms and Flats - run in - sodic
 - ii. Soils are not sodic ... DX035X01BESG03 – Circle Cliffs - Bottoms and Flats - run-in - nonsodic

B. Outcrops and Slopes

- 1 Soils are shallow ... DX035X01BESG04 – Circle Cliffs - Outcrops and Slopes - shallow soils
- 2 Soils are moderately deep or deeper ... DX035X01BESG05 – Circle Cliffs - Outcrops and Slopes - moderately deep or deeper soils

C. Saline Hills and Badlands

- 1 Soil parent material is dominantly gypsiferous ... DX035X01BESG06 – Circle Cliffs - Saline Hills and Badlands - gypsic
- 2 Soil parent material is dominated by salts other than gypsum ... DX035X01BESG07 – Circle Cliffs - Saline Hills and Badlands - saline, nongypsic

D. Saline Uplands and Flats

- 1 Soils are shallow ... DX035X01BESG08 – Circle Cliffs - Saline Uplands and Flats - shallow soils
- 2 Soils are moderately deep or deeper ... DX035X01BESG09 – Circle Cliffs - Saline Uplands and Flats - moderately deep and deeper soils

E. Shallow Shrublands and Woodlands

- 1 Low elevation, MAST > 54 degrees F. ... DX035X01BESG10 – Circle Cliffs - Shallow Shrublands and Woodlands - low elevation
- 2 Mid-elevation, MAST < 54 degrees F. ... DX035X01BESG11 – Circle Cliffs - Shallow Shrublands and Woodlands - mid-elevation

F. Sandy Grasslands and Shrublands

- 1 Low elevation, MAST > 54 degrees F. ... DX035X01BESG12 – Circle Cliffs - Sandy Grasslands and Shrublands - low elevation
- 2 Mid-elevation, MAST <54 degrees F.
 - i. aridic grasslands and shrublands on sandsheets, dunes, and structural benches ... DX035X01BESG13 – Circle Cliffs - Sandy Grasslands and Shrublands - mid-elevation, aridic grasslands
 - ii. Ustic shrublands and woodlands on hills, mountains, and high benches ... DX035X01BESG14 – Circle Cliffs - Sandy Grasslands and Shrublands - mid-elevation, ustic shrublands and woodlands

G. Loamy Shrublands ... DX035X01BESG15 – Circle Cliffs - Finer Shrublands

H. Deep Rocky Soils

- 1 Low elevation, MAST > 54 degrees F. ... DX035X01BESG16 – Circle Cliffs - Deep Rocky - low elevation
- 2 Mid-elevation, MAST < 54 degrees F. ... DX035X01BESG17 – Circle Cliffs - Deep Rocky - mid elevation

III. Mesa and Benches

A. Bottoms and Flats

- 1 Extra water is from perennial or intermittent streamflow ... DX035X01CESG01 – Mesas and Benches - Bottoms and Flats - riparian
- 2 Extra water is from run-in or local water table ... DX035X01CESG02 – Mesas and Benches - Bottoms and Flats - run in

B. Outcrops and Slopes ... DX035X01CESG03 – Mesas and Benches - Outcrops and Slopes

C. Saline Hills and Badlands

1 Soil parent material is dominantly gypsiferous ... DX035X01CESG04 – Mesas and Benches - Saline Hills and Badlands - gypsic

2 Soil parent material is dominated by salts other than gypsum ... DX035X01CESG05 – Mesas and Benches - Saline Hills and Badlands - saline, non-gypsic

D. Saline Uplands and Flats

1 Soils are loams to clays ... DX035X01CESG06 – Mesas and Benches - Saline Uplands and Flats - loam to clay

2 Soils are sandy loams ... DX035X01CESG07 – Mesas and Benches - Saline Uplands and Flats - sandy loams

E. Shallow Shrublands and Woodlands

1 Soils are sandy loams ... DX035X01CESG08 – Mesas and Benches - Shallow Shrublands and Woodlands - sandy loams

2 Soils are loams to clays ... DX035X01CESG09 – Mesas and Benches - Shallow Shrublands and Woodlands - loam to clay

F. Sandy Grasslands and Shrublands

1 Soils are sands ... DX035X01CESG10 – Mesas and Benches - Sandy Grasslands and Shrublands - sandy

2 Soils are sandy loams ... DX035X01CESG11 – Mesas and Benches - Sandy Grasslands and Shrublands - sandy loam

G. Deep Rocky Soils

1 Low elevation, MAST > 54 degrees F. ... DX035X01CESG12 – Mesas and Benches - Deep Rocky - low elevation

2 Mid-elevation, MAST < 54 degrees F. ... DX035X01CESG13 – Mesas and Benches - Deep Rocky - mid elevation

IV. Henry Mountains

A. Bottoms & Flats ... DX035X01DESG01 – Henry Mtns-Bottoms & Flats

B. Saline Hills & Badlands ... DX035X01DESG02 – Henry Mtns-Saline Hills & Badlands

C. Saline Uplands & Flats ... DX035X01DESG03 – Henry Mtns-Saline Uplands & Flats

D. Shallow Shrublands & Woodlands

1 Soils are sandy loams ... DX035X01DESG04 – Henry Mtns-Shallow Shrub & Wood lands-sandy loam

2 Soils are loams to clays ... DX035X01DESG05 – Henry Mtns-Shallow Shrub & Wood lands-loamy

E. Sandy Grasslands and Shrublands ... DX035X01DESG06 – Henry Mtns-Sandy Grass & Shrub lands

F. Deep Rocky Soils

1 Low elevation MAST>54 degrees F ... DX035X01DESG07 – Henry Mtns-Deep Rocky Soils-low elevation

2 Mid elevation MAST<54 degrees F ... DX035X01DESG08 – Henry Mtns-Deep Rocky Soils-mid elevation

V. Green River Desert

A. Bottoms and Flats

1 Extra water is from perennial or intermittent streamflow ... DX035X01EESG01 – Green River Desert - Bottoms and Flats - riparian

2 Extra water is from run-in or local water table ... DX035X01EESG02 – Green River Desert - Bottoms and Flats - run in

B. Outcrops and Slopes ... DX035X01EESG03 – Green River Desert - Outcrops and Slopes

C. Saline Hills and Badlands ... DX035X01EESG04 – Green River Desert - Saline Hills and Badlands

D. Shallow Shrublands and Woodlands

1 Low Elevation MAST > 54 degrees F. ... DX035X01EESG05 – Green River Desert - Shallow Shrublands and Woodlands - low elevation

2 Mid-elevation MAST < 54 degrees F. ... DX035X01EESG06 – Green River Desert - Shallow Shrublands and Woodlands - mid elevation

E. Sandy Grasslands and Shrublands

- 1 Soils are Sands ... DX035X01EESG07 – Green River Desert - Sandy Grasslands and Shrublands - low elevation
- 2 Soils are Sandy Loams ... DX035X01EESG08 – Green River Desert - Sandy Grasslands and Shrublands - mid elevation

F. Deep Rocky Soils

- 1 Low Elevation MAST > 54 degrees F. ... DX035X01EESG09 – Green River Desert - Deep Rocky - low elevation
- 2 Mid-Elevation MAST < 54 degrees F. ... DX035X01EESG10 – Green River Desert - Deep Rocky - mid elevation

VI. Canyonlands

A. Bottoms and Flats

- 1 Extra water is from perennial or intermittent streamflow ... DX035X01FESG01 – Canyonlands - Bottoms and Flats - riparian
- 2 Extra water is from run-in or local water table
 - i. Soils are sodic ... DX035X01FESG02 – Canyonlands - Bottoms and Flats - run in - sodic
 - ii. Soils are not sodic ... DX035X01FESG03 – Canyonlands - Bottoms and Flats - run-in - nonsodic

B. Outcrops and Slopes

- 1 Soils are shallow ... DX035X01FESG04 – Canyonlands - Outcrops and Slopes - shallow soils
- 2 Soils are moderately deep or deeper ... DX035X01FESG05 – Canyonlands - Outcrops and Slopes - mod. deep or deeper

C. Saline Hills and Badlands

- 1 Soil parent material is dominantly gypsiferous ... DX035X01FESG06 – Canyonlands - Saline Hills and Badlands - gypsic
- 2 Soil parent material is dominated by salts other than gypsum ... DX035X01FESG07 – Canyonlands - Saline Hills and Badlands - saline, nongypsic

D. Saline Uplands and Flats

- 1 Soils are shallow ... DX035X01FESG08 – Canyonlands - Saline Uplands and Flats - shallow
- 2 Soils are moderately deep or deeper ... DX035X01FESG09 – Canyonlands - Saline Uplands and Flats - moderately deep and deeper soils

E. Shallow Shrublands and Woodlands

- 1 Low elevation MAST > 54 degrees F. ... DX035X01FESG10 – Canyonlands - Shallow Shrublands and Woodlands - low elevation
- 2 Mid-elevation MAST < 54 degrees F. ... DX035X01FESG11 – Canyonlands - Shallow Shrublands and Woodlands - medium elevation

F. Sandy Grasslands and Shrublands

- 1 Low Elevation MAST > 54 degrees F. ... DX035X01FESG12 – Canyonlands - Sandy Grasslands and Shrublands - low elevation
- 2 Mid-elevation MAST < 54 degrees F. ... DX035X01FESG13 – Canyonlands - Sandy Grasslands and Shrublands - mid elevation

G. Loamy Soils Shrublands ... DX035X01FESG14 – Canyonlands - Finer Shrublands

H. Deep Rocky Soils

- 1 Low elevation MAST > 54 degrees F. ... DX035X01FESG15 – Canyonlands - Deep Rocky - low elevation
- 2 Mid-elevation MAST < 54 degrees F. ... DX035X01FESG16 – Canyonlands - Deep Rocky - mid elevation

VII. Chinle Valley

A. Sodic

- 1 Bottoms ... DX035X01GESG01 – Chinle Valley Sodic Bottoms
- 2 Uplands

- i. Stream terraces ... DX035X01GESG02 – Chinle Valley Sodic Uplands Stream Terraces
- ii. Structural benches, fan remnants ... DX035X01GESG03 – Chinle Valley Sodic Uplands Structural Benches and Fan Terraces

B. Saline

1 Bottoms

- i. [Criteria] ... DX035X01GESG04 – Chinle Valley Saline Bottoms

2 Uplands

- i. Level to rolling
 - a. Moderately deep to very deep ... DX035X01GESG05 – Chinle Valley Saline Uplands Level to Rolling Moderately Deep to Very Deep
 - b. Shallow ... DX035X01GESG06 – Chinle Valley Saline Uplands Level to Rolling Shallow
- ii. Escarpments ... DX035X01GESG07 – Chinle Valley Saline Uplands Escarpments and Steep Slopes

C. Gypsum ... DX035X01GESG08 – Chinle Valley Gypsum

D. Limy ... DX035X01GESG09 – Chinle Valley Limy

E. Sandy

1 Bottoms

- i. Perennial streamflow ... DX035X01GESG10 – Chinle Valley Sandy Bottoms Perennial
- ii. Annual streamflow ... DX035X01GESG11 – Chinle Valley Sandy Bottoms Annual

2 Uplands ... DX035X01GESG12 – Chinle Valley Sandy Uplands

F. Loamy

1 Washes and bottoms ... DX035X01GESG13 – Chinle Valley Loamy Washes and Bottoms

2 Upland

- i. Shallow
 - a. Hills, escarpments, cliffs ... DX035X01GESG14 – Chinle Valley Loamy Shallow Escarpments, Slopes, and Cliffs
 - b. Benches, mesas ... DX035X01GESG15 – Chinle Valley Loamy Shallow Benches, Terraces, and Mesas
- ii. Moderately deep to very deep
 - a. Hills, escarpments, steep slopes ... DX035X01GESG16 – Chinle Valley Loamy Moderately Deep to Very Deep Hills, Escarpments, and Steep Slopes
 - b. Benches, mesas, terraces ... DX035X01GESG17 – Chinle Valley Loamy Moderately Deep to Very Deep Benches, Mesas, and Terraces

G. Shale or clayey

1 Washes and Swales ... DX035X01GESG18 – Chinle Valley Clayey Washes and Swales

2 Upland

- i. Moderately deep to very deep ... DX035X01GESG19 – Chinle Valley Shale or Clayey Shallow
- ii. Moderately deep to very deep ... DX035X01GESG20 – Chinle Valley Shale or Clayey Moderately Deep to Very Deep

H. Sandstone or sandy loam

1 Shallow

- i. MAST > 54 degrees F ... DX035X01GESG21 – Chinle Valley Sandstone Shallow, MAST > 54 degrees F
- ii. MAST < 54 degrees F ... DX035X01GESG22 – Chinle Valley Sandstone Shallow, MAST < 54 degrees F

2 Moderately deep to very deep

- i. MAST > 54 degrees F ... DX035X01GESG23 – Chinle Valley Sandstone Moderately Deep to Very Deep, MAST > 54 degrees F

- ii. MAST < 54 degrees F ... DX035X01GESG24 – Chinle Valley Sandstone Moderately Deep to Very Deep, MAST < 54 degrees F

VIII. Black Mesa Navajo Mountain

- A. Saline/Sodic soils ... DX035X01HESG01 – Black Mesa-Navajo Mtn-Saline/Sodic Soils
- B. Sandy soils
 - 1 Sandy washes ... DX035X01HESG02 – Black Mesa-Navajo Mtn-Sandy washes
 - 2 Sandy uplands ... DX035X01HESG03 – Black Mesa-Navajo Mtn-Sandy uplands
- C. Loamy soils
 - 1 Loamy bottoms ... DX035X01HESG04 – Black Mesa-Navajo Mtn-Loamy bottoms
 - 2 Loamy uplands ... DX035X01HESG05 – Black Mesa-Navajo Mtn-Loamy uplands
 - 3 Loamy hills and escarpments ... DX035X01HESG06 – Black Mesa-Navajo Mtn-Loamy Hills & Escarpments
- D. Clayey soils
 - 1 Clayey washes ... DX035X01HESG07 – Black Mesa-Navajo Mtn-Clayey Washes
 - 2 Clayey uplands ... DX035X01HESG08 – Black Mesa-Navajo Mtn-Clayey Uplands
- E. Sandy loam soils
 - 1 Shallow sandy loam soils
 - i. Shallow sandy loam soils, warm ... DX035X01HESG09 – Black Mesa-Navajo Mtn-Shallow Sandy Loam Upland, warm
 - ii. Shallow sandy loam soils ... DX035X01HESG10 – Black Mesa-Navajo Mtn-Shallow Sandy Loam Uplands
 - 2 Sandy loam uplands
 - i. Sandy loam uplands, warm ... DX035X01HESG11 – Black Mesa-Navajo Mtn-Sandy Loam Upland, warm
 - ii. Sandy loam uplands ... DX035X01HESG12 – Black Mesa-Navajo Mtn-Sandy Loam Uplands
 - 3 Sandy loam Pinyon/Juniper ... DX035X01HESG13 – Black Mesa-Navajo Mtn-Sandy Loam-Pinyon-Juniper

IX. Little Colorado River Basin

- A. Salt affected soils
 - 1 Receive extra water from run-in moisture ... DX035X01IESG01 – Little Colorado River Basin-salt affected soils-run in moisture
 - 2 Soils do not receive extra water from run-in moisture
 - i. Shallow ... DX035X01IESG02 – Little Colorado River Basin-salt affected soils-non run in moisture
 - ii. Moderately deep or deeper ... DX035X01IESG03 – Little Colorado River Basin-salt affected soils-moderately deep or deeper
- B. Gypsum ... DX035X01IESG04 – Little Colorado River Basin-Gypsum soils
- C. Limy ... DX035X01IESG05 – Little Colorado River Basin-Limey Uplands soils
- D. Sandy
 - 1 Receive extra run-in or stream flow ... DX035X01IESG06 – Little Colorado River Basin-sandy soils-run in and streamflow moisture
 - 2 Do not receive extra moisture from run-in ... DX035X01IESG07 – Little Colorado River Basin-sandy soils-non-run in moisture
- E. Loamy
 - 1 Receive extra run-in moisture ... DX035X01IESG08 – Little Colorado River Basin-Loamy soils, run in moisture
 - 2 Does not receive extra run-in moisture
 - i. Shallow

- a. On hills, escarpments, slopes and cliffs ... DX035X01IESG09 – Little Colorado River Basin-Loamy shallow soils on hills, escarpments, slopes and cliffs, non run-in moisture
- b. On benches, terraces and mesas ... DX035X01IESG10 – Little Colorado River Basin- Loamy shallow soils on benches, terraces and mesas (landforms are capped by sandstone, limestone, or other sedimentary strata)
- ii. Moderately deep or deeper
 - a. Slopes are less than 15% and upper part of soil has less than 35% rock fragments ... DX035X01IESG11 – Little Colorado River Basin-Loamy Soils moderately deep or deeper (slopes<15% and <35% rock fragments)
 - b. Slopes are greater than 15% and the upper part of the soil has more than 35% rock fragments ... DX035X01IESG12 – Little Colorado River Basin-Loamy Soils moderately deep or deeper (slopes >15% and >35% rock fragments)

F. Shale or Clayey

- 1 Receive extra water from run-in moisture ... DX035X01IESG13 – Little Colorado River Basin-Shale or clayey (receive run in moisture)
- 2 Does not receive extra water from run-in moisture
 - i. Generally shallow soils on hills, benches and slopes
 - a. landforms are dominantly shale ... DX035X01IESG14 – Little Colorado River Basin-Shale or clayey shallow soils. Dominantly shale (non run in moisture)
 - b. landforms are basalt capped or shallow to cinders ... DX035X01IESG15 – Little Colorado River Basin-Shale or clayey shallow soils basalt or cinders (non run in moisture)
 - ii. moderately deep and deeper soils on fan remnants and plains ... DX035X01IESG16 – Little Colorado River Basin-Shale or clayey mod-deep or deeper soils on fan remnants or plains

G. Sandstone or sandy loam

- 1 Shallow soils
 - i. Low elevation, MAST >54 degrees F ... DX035X01IESG17 – Little Colorado River Basin-sandstone or sandy loam, shallow soils, low elevation
 - ii. Mid elevation, MAST< 54 degrees F ... DX035X01IESG18 – Little Colorado River Basin-sandstone or sandy loam, shallow soils, mid-elevation
- 2 Moderately deep and deeper soils
 - i. Low elevation, MAST >54 degrees F ... DX035X01IESG19 – Little Colorado River Basin-sandstone or sandy loam moderately deep or deeper soils (low elevation)
 - ii. Mid elevation, MAST< 54 degrees F ... DX035X01IESG20 – Little Colorado River Basin-sandstone or sandy loam moderately deep or deeper soils (mid elevation)

X. Paria and Kaibito Plateaus

A. Saline

- 1 Bottoms and streambanks ... DX035X01JESG01 – Paria and Kaibito Plateaus Saline Bottoms and Streambanks
- 2 Upland ... DX035X01JESG02 – Paria and Kaibito Plateaus Saline Upland

B. Gypsum ... DX035X01JESG03 – Paria and Kaibito Plateaus Gypsum

C. Limy ... DX035X01JESG04 – Paria and Kaibito Plateaus Limy (calcareous)

D. Sandy

- 1 Washes and bottoms ... DX035X01JESG05 – Paria and Kaibito Plateaus Sandy Washes and Bottoms
- 2 Uplands
 - i. Shallow ... DX035X01JESG06 – Paria and Kaibito Plateaus Shallow Upland
 - ii. Moderately deep to very deep ... DX035X01JESG07 – Paria and Kaibito Plateaus Sandy Moderately Deep to Very Deep

E. Loamy

- 1 Washes and bottoms ... DX035X01JESG08 – Paria and Kaibito Plateaus Loamy Washes and Bottoms

2 Uplands

i. Shallow

- a. Hills, slopes, cliffs ... DX035X01JESG09 – Paria and Kaibito Plateaus Loamy Shallow Hills, Escarpments, and Cliffs
- b. Benches, terraces, mesas ... DX035X01JESG10 – Paria and Kaibito Plateaus Loamy Shallow Benches and Mesas

ii. Moderately deep to very deep

- a. Hills, escarpments, mesas ... DX035X01JESG11 – Paria and Kaibito Plateaus Loamy Moderately Deep to Very Deep Hills, Escarpments, and Steep Slopes
- b. Benches, terraces, mesas ... DX035X01JESG12 – Paria and Kaibito Plateaus Loamy Moderately Deep to Very Deep Benches, Terraces, and Mesas

F. Shale or clayey

- 1 [Criteria] ... DX035X01JESG13 – Paria and Kaibito Plateaus Shale or Clayey

G. Sandstone or sandy loam

1 Shallow

- i. MAST > 54 degrees F ... DX035X01JESG14 – Paria and Kaibito Plateaus Shallow Sandstone, MAST > 54 degrees F
- ii. MAST < 54 degrees F ... DX035X01JESG15 – Paria and Kaibito Plateaus Shallow Sandstone, MAST < 54 degrees F

2 Moderately deep to very deep

- i. MAST > 54 degrees F ... DX035X01JESG16 – Paria and Kaibito Plateaus Moderately Deep to Very Deep Sandy Loam, MAST > 54 degrees F
- ii. MAST < 54 degrees F ... DX035X01JESG17 – Paria and Kaibito Plateaus Moderately Deep to Very Deep Sandy Loam, MAST < 54 degrees F