Major Land Resource Area 035X Colorado Plateau

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Ecological site group keys

MLRA 35 Key to the LRUs

1 Central Colorado Plateau LRU

This is the heart of the MLRA, it is characterized by Mesozoic aged geology.

2 Western Colorado Plateau LRU

This western portion of the MLRA is characterized by Permian aged geology, especially the Kaibab formation

3 Northwestern New Mexico Highlands LRU

This LRU is characterized by higher elevations and non-marine sedimentary formations.

4 San Juan Basin LRU

This LRU is mostly characterized by Cretaceous-aged marine formations. It mostly occurs in Northwest New Mexico.

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 & Flatsrun in

B. Outcrops and Slopes

Soils are shallow to bedrock ... DX035X01AESG03 – Grand Staircase-Outcrops & Slopes-Shallow Soils
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

Soils are sandy loams ... DX035X01AESG07 – Grand Staircase-Saline Uplands & Flats-Sandy loam soils
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

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

Loam Soils

G. Loam Soils Shrublands

Soils are gravelly ... DX035X01AESG15 – Grand Staircase-Loam Soils Shrublands-Gravelly Soils
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 dominantely 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

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 \dots 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 \dots 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 soilsmoderately 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 soilsnon-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 \dots 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. Hille, 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

35X02 Western Colorado Plateau LRU

I. North Slope of the Mogollon Rim (A)

A. Site parent material is limestone or dolomite, or soil is loamy.

1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02AESG01 – North Slope of the Mogollon Rim - Ustic Aridic - Limestone or Loamy Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02AESG02 – North Slope of the Mogollon Rim - Ustic Aridic - Limestone or Loamy Upland

iii. Site is and/or located on a cliff with slopes >50%. ... DX035X02AESG03 – North Slope of the Mogollon Rim - Ustic Aridic - Limestone or Loamy Cliffs

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%.

3 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02AESG06 – North Slope of the Mogollon Rim - Aridic Ustic - Limestone or Loamy Upland

B. Site parent material is sandstone or soil is a sandy loam.

1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02AESG07 – North Slope of the Mogollon Rim - Ustic Aridic - Sandstone or Sandy Loam Upland

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02AESG08 – North Slope of the Mogollon Rim - Aridic Ustic - Sandstone or Sandy Loam Upland.

C. Soil is basalt, shale, or clayey.

1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02AESG09 – North Slope of the Mogollon Rim - Ustic Aridic - Clayey Wash

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02AESG10 – North Slope of the Mogollon Rim - Ustic Aridic - Clayey Upland

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%.

II. Coconino Plateau (B)

A. Site parent material is limestone or dolomite, or soil is loamy.

1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02BESG01 – Coconino Plateau - Ustic Aridic - Limestone or Loamy Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02BESG02 – Coconino Plateau - Ustic Aridic - Limestone or Loamy Upland

iii. Site is and/or located on a cliff with slopes >50%. ... DX035X02BESG03 – Coconino Plateau - Ustic Aridic - Limestone or Loamy Cliffs

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02BESG04 – Coconino Plateau - Aridic Ustic - Limestone or Loamy Upland

B. Soil at site is sandy.

1 Site is and/or located in an upland with slopes <15%. ... DX035X02BESG06 – Coconino Plateau - Ustic Aridic - Sandy Upland

- C. Soil at site is Clayey.
 - 1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02BESG07 – Coconino Plateau - Ustic Aridic - Clayey Wash

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02BESG08 – Coconino Plateau - Ustic Aridic - Clayey Upland

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02BESG09 – Coconino Plateau - Aridic Ustic - Clayey Upland

D. Site parent material is volcanic.

1 Site is and/or located on a hill with slopes >15%. ... DX035X02BESG10 – Coconino Plateau - Ustic Aridic - Volcanic Hills

E. Site parent material is sandstone or soil is a sandy loam.

1 Site is and/or located in an upland with slopes <15%. ... DX035X02BESG11 – Coconino Plateau - Ustic Aridic - Sandstone or Sandy Loam Upland

III. Coconino Transition (C)

- A. Site parent material is limestone or dolomite, or soil is loamy.
 - 1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02CESG01 – Coconino Transition - Ustic Aridic - Limestone or Loamy Wash

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG02 – Coconino Transition - Ustic Aridic - Limestone or Loamy Upland

iii. Site is and/or located on a hill with slopes >15%. ... DX035X02CESG03 – Coconino Transition - Ustic Aridic - Limestone or Loamy Hills

2 Site soils are aridic ustic or within a 13-17" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG04 – Coconino Transition - Aridic Ustic - Limestone or Loamy Upland

ii. Site is and/or located on a hill with slopes >15%. ... DX035X02CESG05 – Coconino Transition - Aridic Ustic - Limestone or Loamy Hills

iii. Site is and/or located on a cliff with slopes >50%. ... DX035X02CESG06 – Coconino Transition - Aridic Ustic - Limestone or Loamy Cliffs

3 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02CESG07 – Coconino Transition - Aridic Ustic - Limestone or Loamy Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG08 – Coconino Transition - Aridic Ustic - Limestone or Loamy Upland

iii. Site is and/or located on a hill with slopes >15%. ... DX035X02CESG09 – Coconino Transition - Aridic Ustic - Limestone or Loamy Hills

iv. Site is and/or located on a cliff with slopes >50%. ... DX035X02CESG10 – Coconino Transition - Aridic Ustic - Limestone or Loamy Cliffs

- B. Soil at site is sandy.
 - 1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG11 – Coconino Transition - Ustic Aridic - Sandstone or Sandy Upland

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG12 – Coconino Transition - Aridic Ustic - Sandstone or Sandy Upland

- C. Soil at site is basalt or clayey.
 - 1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02CESG13 – Coconino Transition - Ustic Aridic - Clayey Wash

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG14 – Coconino Transition - Ustic Aridic - Clayey Upland

iii. Site is and/or located on a hill with slopes >15%. ... DX035X02CESG15 – Coconino Transition - Ustic Aridic - Basalt Hills

2 Site soils are aridic ustic or within a 14-18" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02CESG16 – Coconino Transition - Aridic Ustic - Basalt or Clayey Upland

- IV. Grand Canyon (D)
 - A. Site parent material is limestone or dolomite, or soil is loamy.
 - 1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG01 – Grand Canyon - Typic Aridic - Limestone or Loamy Upland

ii. Slopes exceed 15% ... DX035X02DESG20 – Grand Canyon - Typic Aridic - Limestone Hills

2 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG02 – Grand Canyon - Ustic Aridic - Limestone or Loamy Upland

ii. Site is and/or located on a hill with slopes >15%. ... DX035X02DESG03 – Grand Canyon - Ustic Aridic - Limestone or Loamy Hills

3 Site soils are aridic ustic or within a 13-17" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG04 – Grand Canyon - Aridic Ustic - Limestone or Loamy Upland

ii. Site is and/or located on a hill with slopes >15%. ... DX035X02DESG05 – Grand Canyon - Aridic Ustic - Limestone or Loamy Hills

iii. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG06 – Grand Canyon - Aridic Ustic - Limestone or Loamy Cliffs

4 Site soils are within a 17-25" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG07 – Grand Canyon - Typic Ustic - Limestone or Loamy Upland

- B. Site parent material is volcanic or clayey.
 - 1 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in a wash. ... DX035X02DESG08 – Grand Canyon - Ustic Aridic - Clayey Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG09 – Grand Canyon - Ustic Aridic - Volcanic or Clayey Upland

iii. Site is and/or located on a hill with slopes >15%. ... DX035X02DESG10 – Grand Canyon - Ustic Aridic - Volcanic or Clayey Hills

2 [Criteria]

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG11 – Grand Canyon - Aridic Ustic - Volcanic or Clayey Upland

3 site is typic aridic or precipitation is within 6 to 10 inch range

i. site is volcanic or clayey, typic aridic, and slopes exceed 15% ... DX035X02DESG18 - Grand Canyon

- Typic Aridic - Volcanic or Clayey Hills

ii. Upland, slopes are ≤ 15% ... DX035X02DESG24 – Grand Canyon - Typic Aridic - Volcanic or Clayey Upland

C. Site parent material is sandstone or soil is a sandy loam.

1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG12 – Grand Canyon - Typic Aridic - Sandstone or Sandy Loam Upland

ii. Site is and/or located on a hill with slopes >15%. ... DX035X02DESG13 – Grand Canyon - Typic Aridic - Sandstone or Sandy Loam Hills

2 Site soils are ustic aridic or within a 10-14" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG14 – Grand Canyon - Ustic Aridic - Sandstone or Sandy Loam Upland

3 Site soils are aridic ustic or within a 13-17" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02DESG15 – Grand Canyon - Aridic Ustic - Sandstone or Sandy Loam Upland

- D. Sandy
 - 1 Ustic Aridic
 - i. Sandy bottoms ustic aridic ... DX035X02DESG16 Grand Canyon Ustic Aridic Sandy Bottoms
 - 2 Typic Aridic
 - i. typic aridic sandy bottoms ... DX035X02DESG17 Grand Canyon Typic Aridic Sandy Bottoms
- E. Limy
 - 1 uplands slopes $\leq 15\%$
 - i. typic aridic limy uplands ... DX035X02DESG21 Grand Canyon Typic Aridic Limy Upland
 - 2 Hillslopes \geq 15% typic aridic
 - i. [Criteria] ... DX035X02DESG22 Grand Canyon Typic Aridic Limy Hills
- F. Gypsum
 - 1 Gypsum Uplands, Slopes $\leq 15\%$

i. Gypsum Uplands, slopes ≤ 15%, typic aridic ... DX035X02DESG23 – Grand Canyon - Typic Aridic - Gypsic Upland

2 Gypsum Hills, Slopes $\ge 15\%$

i. Gypsum Hills, slopes ≥ 15%, typic aridic ... DX035X02DESG19 – Grand Canyon - Typic Aridic - Gypsic Hills

- V. Arizona Strip (E)
 - A. Site soils are gypsiferous
 - 1 Soils are typic aridic, or precipitation is within the range of 7 to 11 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG01 – Arizona Strip - Typic Aridic - Gypsum Upland

ii. Site is and/or located in an upland with slopes >15%. ... DX035X02EESG02 – Arizona Strip - Typic Aridic - Gypsum Hills

2 Soils are ustic aridic, or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG03 – Arizona Strip - Ustic Aridic - Gypsum Upland

ii. Site is and/or located in an upland with slopes >15%. ... DX035X02EESG04 – Arizona Strip - Ustic Aridic - Gypsum Hills

- B. Site is sandy.
 - 1 Soils are typic aridic, or precipitation is within the range of 6 to 10 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG05 – Arizona Strip - Typic Aridic - Sandy Upland

2 Soils are Ustic Aridic, or precipitation is within a range of 10 to 14 inches

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG06 – Arizona Strip - Ustic Aridic - Sandy Upland

- C. Site parent material is sandstone or sandy loam.
 - 1 Soil are typic aridic, or precipitation is within the range of 7 to 11 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG07 – Arizona Strip - Typic Aridic - Sandstone or Sandy Loam Upland

2 Soils are ustic aridic, or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG08 – Arizona Strip - Ustic Aridic - Sandstone or Sandy Loam Upland

3 moisture is aridic ustic or precipitation is 13 to 17 inches annually

i. upland, slopes are ≤ 15% ... DX035X02EESG23 – Arizona Strip - Aridic Ustic - Sandstone or Sandy Loam Upland

D. Site parent material is basalt or clayey

1 Soils are typic aridic, or precipitation is within the range of 7 to 11 inches.

i. Site is and/or located in a wash. ... DX035X02EESG09 – Arizona Strip - Typic Aridic - Clay Loam Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG10 – Arizona Strip - Typic Aridic - Basalt or Clay Loam Upland

2 Soils are ustic aridic or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG11 – Arizona Strip - Ustic Aridic - Basalt or Clay Loam Upland

3 Soils are ustic aridic, or precipitation is within the range of 13 to 17 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG13 – Arizona Strip - Aridic Ustic - Clayey or Clay Loam Upland

ii. Site is and/or located in an upland with slopes >15%. ... DX035X02EESG14 – Arizona Strip - Aridic Ustic - Basalt Slopes

- E. Site parent material is limestone or loamy.
 - 1 Soils are typic aridic, or precipitation is within the range of 7 to 11 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG15 – Arizona Strip - Typic Aridic - Limestone or Loamy Upland

ii. Site is and/or located in an upland with slopes >15%. ... DX035X02EESG16 – Arizona Strip - Typic Aridic - Limestone Slopes

2 Soils are ustic aridic, or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in a wash. ... DX035X02EESG17 – Arizona Strip - Ustic Aridic - Limestone or Loamy Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG18 – Arizona Strip - Ustic Aridic - Limestone or Loamy Upland Blackbrush

iii. Site is and/or located in an upland with slopes >15%. ... DX035X02EESG19 – Arizona Strip - Ustic Aridic - Limestone or Loamy Slopes

3 Soils are aridic ustic, or precipitation is within the range of 13 to 17 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02EESG20 – Arizona Strip - Aridic Ustic - Limestone or Loamy Upland

ii. Site is and/or located in an upland with slopes >15%. ... DX035X02EESG21 – Arizona Strip - Aridic Ustic - Limestone or Loamy Slopes

F. Blackbrush (coleogyne ramosissima) is present on site

1 Parent Material is not basalt. ... Dx035X02EESG22 – Arizona Strip- Ustic Aridic- Limestone or loamy upland- Blackbrush

2 Parent material is basalt. ... DX035X02EESG12 – Arizona Strip - Ustic Aridic - Basalt or Clay Loam Slopes- Blackbrush

VI. Kaibab Plateau (F)

- A. Site soils are gypsiferous.
 - 1 Soils are ustic aridic or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in an upland with slopes >15%. ... DX035X02FESG01 – Kaibab Plateau - Ustic Aridic - Gypsum Hills

- B. Site parent material is shale or clayey.
 - 1 Soils are ustic aridic, or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02FESG02 – Kaibab Plateau - Ustic Aridic - Clay Loam or Shale Upland

- C. Site parent material is limestone or loamy.
 - 1 Soils are ustic aridic, or precipitation is within the range of 10 to 14 inches.

i. Site is and/or located in a wash. ... DX035X02FESG03 – Kaibab Plateau - Ustic Aridic - Limestone or Loamy Bottoms

ii. Site is and/or located in an upland with slopes <15%. ... DX035X02FESG04 – Kaibab Plateau - Ustic Aridic - Limestone or Loamy Upland

iii. Site is and/or located in an upland with slopes >15%. ... DX035X02FESG05 – Kaibab Plateau - Ustic Aridic - Limestone or Loamy Slopes

2 Soils are aridic ustic, or precipitation is within the range of 13 to 17 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02FESG06 – Kaibab Plateau - Aridic Ustic - Limestone or Loamy Upland

ii. Site is and/or located in an upland with slopes >15%. ... DX035X02FESG07 – Kaibab Plateau - Aridic Ustic - Limestone or Loamy Slopes

3 Soils are typic ustic, or precipitation is within the range of 17 to 25 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02FESG08 – Kaibab Plateau - Xeric Udic - Limestone or Loamy Upland

4 Soils are ustic udic, or precipitation is within the range of 25 to 33 inches.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02FESG09 – Kaibab Plateau - Typic Udic - Limestone or Loamy Upland

VII. Marble Canyon (G)

- A. Soil at site is colluvial.
 - 1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG01 – Marble Canyon - Typic Aridic - Upland Colluvial

- B. Soil at site is saline.
 - 1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG02 – Marble Canyon - Typic Aridic - Saline Upland

- E. Soil at site is sandy.
 - 1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG06 – Marble Canyon - Typic Aridic - Sandy Upland

2 Site soils are within a 7-11" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG08 – Marble Canyon - Typic Aridic - Sandy Upland 7-11" p.z.

F. Soil at site is sedimentary or loamy.

1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG10 – Marble Canyon - Typic Aridic - Limestone or Loamy Upland

ii. Site is and/or located on a hill with slopes >15%. ... DX035X02GESG11 – Marble Canyon - Typic Aridic - Limestone or Loamy Cliffs

2 Site soils are within a 7-11" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG13 – Marble Canyon - Typic Aridic - Limestone or Loamy Upland 7-11" p.z.

- H. Site parent material is sandstone or soil is a sandy loam.
 - 1 Site soils are typic aridic or within a 6-10" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG20 – Marble Canyon - Typic Aridic - Sandstone or Sandy Loam Upland

2 Site soils are within a 7-11" precipitation zone.

i. Site is and/or located in an upland with slopes <15%. ... DX035X02GESG21 – Marble Canyon - Typic Aridic - Sandstone or Sandy Loam Upland 7-11" p.z.

F. site is gypsic

1 site soils are typic aridic or within 6 to 10 inch precipitation range

i. site slopes are upland, slopes ≤ 15% ... DX035X02GESG04 – Marble Canyon - Typic Aridic - Gypsum Upland

ii. site slopes are hills, slopes are ≥ 15% ... DX035X02GESG05 – Marble Canyon - Typic Aridic - Gypsum Hills

G. shale

1 soils are in the typic aridic or within the 6 to 10 inch annual precipitation range

i. upland, slopes are ≤ 15% ... DX035X02GESG18 – Marble Canyon - Typic Aridic - Shale or Clayey Upland

ii. bottoms ... DX035X02GESG19 - Marble Canyon - Typic Aridic - Shale or Clayey Bottoms

35X03 Northwest New Mexico Highlands LRU

I. Acoma Valley, Tres Hermanos, and Sierra Lucero

A. Soils limy ... DX035X03AESG03 - Acoma Valley - Limy

- B. Soils not limy
 - 1 Soils sandy ... DX035X03AESG04 Acoma Valley Sandy
 - 2 Soils not sandy

i. Parent Material is Sedimentary or soil is loamy ... DX035X03AESG05 – Acoma Valley - Sedimentary or Loamy

ii. Parent Material is Shale or soil is Clayey ... DX035X03AESG06 - Acoma Valley - Shale or Clayey

iii. Parent Material is Sandstone or soil is Sandy Loam ... DX035X03AESG07 - Acoma Valley -

Sandstone or Sandy Loam

- II. Chuska Mountains
 - A. Soils sodic ... DX035X03BESG01 Chuska Mountains Sodic
 - B. Soils not sodic
 - 1 Soils saline ... DX035X03BESG02 Chuska Mountains Saline
 - 2 Soils not saline
 - i. Soils limy ... DX035X03BESG03 Chuska Mountains Limy
 - ii. Soils not limy
 - a. Soils silty ... DX035X03BESG04 Chuska Mountains Silty
 - b. Soils not silty
 - 1) Soils sandy ... DX035X03BESG05 Chuska Mountains Sandy
 - 2) Soils not sandy

a) Parent Material is Sedimentary or soil is Loamy ... DX035X03BESG06 – Chuska Mountains - Sedimentary or Loamy

b) Parent Material is Shale or soil is Clayey ... DX035X03BESG07 – Chuska Mountains - Shale or Clayey

c) Parent Material is Sandstone or soil is Sandy Loam ... DX035X03BESG08 – Chuska Mountains - Sandstone or Sandy Loam

- III. Defiance Plateau
 - A. Soils sodic ... DX035X03CESG01 Defiance Plateau Sodic
 - B. Soils not sodic
 - 1 Soils saline ... DX035X03CESG02 Defiance Plateau Saline
 - 2 Soils not saline

- i. Soils limy ... DX035X03CESG03 Defiance Plateau Limy
- ii. Soils not limy
 - a. Soils silty ... DX035X03CESG04 Defiance Plateau Silty
 - b. Soils not silty
 - 1) Soils sandy ... DX035X03CESG05 Defiance Plateau Sandy
 - 2) Soils not sandy

a) Parent Material is Sedimentary or soil is Loamy ... DX035X03CESG06 – Defiance Plateau - Sedimentary or Loamy

b) Parent Material is Shale or soil is Clayey ... DX035X03CESG07 – Defiance Plateau - Shale or Clayey

c) Parent Material is Sandstone or soil is Sandy Loam ... DX035X03CESG08 – Defiance Plateau - Sandstone or Sandy Loam

IV. Lake Bidahochi Sediments

- A. Soils sodic ... DX035X03DESG01 Lake Bidahochi Sodic
- B. Soils not sodic
 - 1 Soils saline ... DX035X03DESG02 Lake Bidahochi Saline
 - 2 Soils not saline
 - i. Soils sandy ... DX035X03DESG03 Lake Bidahochi Sandy
 - ii. Soils not sandy

a. Parent Material is Sedimentary, or soil is Loamy ... DX035X03DESG04 – Lake Bidahochi - Sedimentary or Loamy

b. Parent Material is Shale or Volcanic, or soil is Clayey ... DX035X03DESG05 – Lake Bidahochi - Shale or Clayey

c. Parent Material is Sandstone, or soil is Sandy Loam ... DX035X03DESG06 – Lake Bidahochi - Sandstone or Sandy Loam

- V. Nacimiento Sediments
 - A. Soils sodic ... DX035X03EESG01 Nacimiento Sediments Sodic
 - B. Soils not sodic
 - 1 Soils limy ... DX035X03EESG02 Nacimiento Sediments Limy
 - 2 Soils not limy
 - i. Soils sandy ... DX035X03EESG03 Nacimiento Sediments Sandy
 - ii. Soils not sandy

a. Parent Material is Sedimentary or soil is Loamy ... DX035X03EESG04 – Nacimiento Sediments - Sedimentary or Loamy

b. Parent Material is Shale or soil is Clayey ... DX035X03EESG05 – Nacimiento Sediments - Shale or Clayey

c. Parent Material is Sandstone or soil is Sandy Loam ... DX035X03EESG06 – Nacimiento Sediments - Sandstone or Sandy Loam

VI. Puerco, Zuni, and Carrizo Basins

A. Parent Material is Sedimentary or soil is Loamy ... DX035X03FESG03 – Puerco, Zuni, and Carrizo Basins - Sedimentary or Loamy

B. Parent Material is Shale or soil is Clayey ... DX035X03FESG04 – Puerco, Zuni, and Carrizo Basins - Shale or Clayey

C. Parent Material is Sandstone or soil is Sandy Loam ... DX035X03FESG05 – Puerco, Zuni, and Carrizo Basins - Sandstone or Sandy Loam

VII. Zuni Mountains

A. Parent Material is Sedimentary or soil is Loamy ... DX035X03GESG05 – Zuni Mountains - Sedimentary or Loamy

B. Parent Material is Shale or soil is Clayey ... DX035X03GESG06 – Zuni Mountains - Shale or Clayey

C. Parent Material is Sandstone or soil is Sandy Loam ... DX035X03GESG07 – Zuni Mountains - Sandstone or Sandy Loam

35X04 San Juan Basin LRU

I. San Juan River Corridor. This LRU subset consists of landforms which drain directly into the San Juan River. Elevations are mostly under 1900 meters. Stratigraphy is varied, ranging from the Mancos to the Nacimiento formations. This LRU subset is distinct from the rest of 35.4 in that it provides irrigation water. Thus, upland landforms which contribute significant water are included.

A. Site occurs on landforms that are concave in one or more dimensions, and receive extra moisture from runoff, throughflow, or discharge in the landscape. ... DX035X04AESG01 – San Juan River Corridor LRU Subset - Bottomlands Subgroup

B. Sites that occur on "upland", water-shedding landforms. Elevated terraces are included in this group.

1 Soils are < 50 cm to lithic or paralithic contact (root-restrictive bedrock). ... DX035X04AESG02 – San Juan River Corridor LRU Subset - Shallow Subgroup

2 Soils are > 50 cm to lithic or paralithic contact (root-restrictive bedrock).

i. Sites that have saline and/or sodic soils. In these cases soils regularly have an EC > 4.0 and/or SAR >

10 or ESP > 15. ... DX035X04AESG03 – San Juan River Corridor LRU Subset - Saline/Sodic Subgroup ii. Soils lack both significant salinity and sodicity.

a. Soils have a combination of free carbonates and calcareous rock fragments at the surface. Strong or violent response to dilute HCl and ≥ 5% calcareous fragments. ... DX035X04AESG04 – San Juan River Corridor LRU Subset - Limy Subgroup

b. Soils lack one or both f the following at the surface: Strong or violent response to dilute HCl or ≥ 5% calcareous fragments.

1) Sites with soils that have particle size classes of loamy or fine loamy. ... DX035X04AESG06 – San Juan River Corridor LRU Subset - Loamy Subgroup

2) Sites with soils that have particle size classes of fine or very fine. ... DX035X04AESG07 – San Juan River Corridor LRU Subset - Clayey Subgroup

3) Sites with soils that have particle size classes of sandy, coarse loamy, or coarser. ... DX035X04AESG05 – San Juan River Corridor LRU Subset - Sandy Subgroup

II. Bisti Lowlands. This LRU subset is composed of Cretaceous materials, and is generally below 1900 m in elevation. The Bisti Lowanads subset is further distinguished from Chaco Mesa in that the former receives less monsoonal moisture, harbors less warm-season grass, and experiences low amounts of blowing sands.

A. Site occurs on landforms that are concave in one or more dimensions, and receive extra moisture from runoff, throughflow, or discharge in the landscape. ... DX035X04BESG06 – Bisti Lowlands LRU Subset - Bottomland Subgroup

B. Sites that occur on "upland", water-shedding landforms. Elevated terraces are included in this group.

1 Soils are < 50 cm to lithic or paralithic contact (root-restrictive bedrock). ... DX035X04BESG07 – Bisti Lowlands LRU Subset - Shallow Subgroup

2 Soils are > 50 cm to lithic or paralithic contact (root-restrictive bedrock).

i. Sites that have saline and/or sodic soils. In these cases soils regularly have an EC > 4.0 and/or SAR > 10 or ESP > 15. ... DX035X04BESG01 – Bisti Lowlands LRU Subset - Saline and Sodic Uplands Subgroup

ii. Soils lack both significant salinity and sodicity.

a. Soils have a combination of free carbonates and calcareous rock fragments at the surface. Strong or violent response to dilute HCl and ≥ 5% calcareous fragments. ... DX035X04BESG02 – Bisti Lowlands LRU Subset - Limy Subgroup

b. Soils lack one or both f the following at the surface: Strong or violent response to dilute HCl or ≥ 5% calcareous fragments.

1) Sites with soils that have particle size classes of sandy, coarse loamy, or coarser. ...

DX035X04BESG03 – Bisti Lowlands LRU Subset - Sandy Subgroup

2) Sites with soils that have particle size classes of loamy or fine loamy. ... DX035X04BESG05 – Bisti Lowlands LRU Subset - Loamy Subgroup

3) Sites with soils that have particle size classes of clayey, fine, or very fine. ...

DX035X04BESG04 – Bisti Lowlands LRU Subset - Clayey Subgroup

IV. Chaco Mesa. This LRU subset is composed of Cretaceous materials, is generally above 1900 m in elevation, and does not drain directly into the San Juan River. The Chaco Mesa subset is further distinguished from the Bisti Lowlands in that the former receives more monsoonal moisture, harbors more warm-season grasses, and experiences a considerable amount of blowing sands.

A. Site occurs on landforms that are concave in one or more dimensions, and receive extra moisture from runoff, throughflow, or discharge in the landscape. ... DX035X04CESG01 – Chaco Mesa LRU subset - Bottomlands

B. Sites that occur on "upland", water-shedding landforms. Elevated terraces are included in this group.

1 Soils are < 50 cm to lithic or paralithic contact (root-restrictive bedrock). ... DX035X04CESG02 – Chaco Mesa LRU subset - Shallow

2 Soils are > 50 cm to lithic or paralithic contact (root-restrictive bedrock).

i. Sites that have saline and/or sodic soils. In these cases soils regularly have an EC > 4.0 and/or SAR >

10 or ESP > 15. ... DX035X04CESG03 – Chaco Mesa LRU Subset - Saline and Sodic Uplands

ii. Soils lack both significant salinity and sodicity.

a. Soils have a combination of free carbonates and calcareous rock fragments at the surface. Strong or violent response to dilute HCl and ≥ 5% calcareous fragments. ... DX035X04CESG04 – Chaco Mesa LRU Subset - Limy

b. Soils lack one or both f the following at the surface: Strong or violent response to dilute HCl or ≥ 5% calcareous fragments.

1) Sites with soils that have particle size classes of of sandy, coarse loamy, or coarser. ...

DX035X04CESG05 – Chaco Mesa LRU Subset - Sandy

2) Sites with soils that have particle size classes of loamy or fine loamy. ... DX035X04CESG06 – Chaco Mesa LRU Subset - Loamy

3) Sites with soils that have particle size classes of clayey, fine, or very fine. ...

DX035X04CESG07 – Chaco Mesa LRU Subset - Clayey

III. Canon Seboyeta. This LRU subset drains eastward toward the Acoma Valley, and is confined to Cretaceous sedimentary parent materials. It is bounded to the west by the Mt. Taylor Volcanic field, to the north by a watershed divide, and to the east and south by a break between Cretaceous and Jurassic strata.

A. Site occurs on landforms that are concave in one or more dimensions, and receive extra moisture from runoff, throughflow, or discharge in the landscape. ... DX035X04DESG01 – Canon Seboyeta LRU Subset - Bottomland Subgroup

B. Sites that occur on "upland", water-shedding landforms. Elevated terraces are included in this group.

1 Sites that have saline and/or sodic soils. In these cases soils regularly have an EC > 4.0 and/or SAR > 10

or ESP > 15. ... DX035X04DESG02 – Canyon Seboyeta LRU Subset - Salty Sites subgroup

2 Soils lack both significant salinity and sodicity.

i. Sites with soils that have particle size classes of loamy, fine loamy, or coarser. ... DX035X04DESG03

- Canyon Seboyeta LRU Subset - Loamy Subgroup

ii. Sites with soils that have particle size classes of clayey, fine, or very fine. ... DX035X04DESG04 – Canon Seboyeta LRU Subset - Clayey Subgroup

Rio Puerco

- I. Additional water
 - A. Perennial water ... RPESG09 Riparian
 - B. Ephemeral water
 - 1 Subsurface EC >4 ... RPESG10 Saline Bottoms
 - 2 Subsurface EC <4
 - i. Sand >50% & clay <25% for surface and subsurface ... RPESG13 Sandy Bottoms
 - ii. Sand <50% or clay >25% for surface and subsurface ... RPESG01 Bottoms
- II. Uplands
 - A. >75% bedrock outcrop ... RPESG08 Outcrops
 - B. <75% bedrock outcrop
 - 1 Surface SAR >8 ... RPESG11 Saline Hills
 - 2 Surface SAR <8
 - i. Gypsum >5% surface or >10% subsurface ... RPESG06 Gypsum
 - ii. Gypsum <5% and <10% subsurface
 - a. Subsurface EC >8 or surface EC >4 ... RPESG11 Saline Hills
 - b. Subsurface EC <8 and surface EC <4
 - 1) EC >1.5 surface or >2 subsurface ... RPESG12 Saline Uplands
 - 2) EC <1.5 surface and <2 subsurface
 - a) Slope >35% & >40% surface rock ... RPESG02 Breaks
 - b) Slope <35% or <40% surface rock
 - (1) Depth <30cm ... RPESG16 Very Shallow
 - (2) Depth: 30-55cm ... RPESG15 Shallow
 - (3) Depth >55cm
 - (a) Rock >30% surface or >30% subsurface ... RPESG04 Deep Rocky
 - (b) Rock <30% surface and <30% subsurface
 - (1) Clay >30% surface or >35% subsurface ... RPESG03 Clay Uplands
 - (2) Clay <30% surface and <35% subsurface

(a) Sand >75% or texture is loamy sand or sandier in surface & subsurface ... RPESG14 – Sandy Uplands

- (b) Sand <75% or texture is sandy loam or finer in surface & subsurface
 - (1) Clay <20% or texture is sandy loam or sandier in surface ... RPESG07 Loamy Uplands

(2) Clay >20% or texture is finer than sandy loam in surface ... RPESG05 – Finer Uplands