USDA icon **Natural Resources Conservation Service**

Major Land Resource Area 028B
Central Nevada Basin and Range

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Ecological site keys

MLRA 28B

XA Basins (Including playas)

A. Typic aridic

1 Sandy particle control section ... R028BY021NV – SODIC DUNE

2 Not sandy in the particle control section

i. Skeletal particle control section ... R028BY017NV – LOAMY 5-8 P.Z.

ii. Not skeletal in the particle control section

a. Somewhat poorly drained, water table 20 to 60 inches. ... R028BY004NV – SALINE BOTTOM

b. Soil not as above

1) Ponded

a) Long duration ponding (greater than seven days). ... R028BY020NV – SODIC FLAT 5-8 P.Z.

b) Brief duration ponding (less than seven days). ... R028BY069NV – SODIC FLAT 8-10 P.Z.

2) Not ponded

a) Lower sodium at the surface. pH increasing with depth. ... R028BY047NV – SALINE TERRACE 5-8 P.Z.

b) Higher sodium near surface. pH higher at the surface. ... R028BY074NV – SODIC TERRACE 5-8 P.Z.

c) Lower sodium at the surface. pH increasing with depth. ... R028BY097NV – ALKALI SILT FLAT

d) Higher sodium near surface. pH higher at the surface. ... R028BY073NV – SHALLOW SILTY 5-8 P.Z.

e) Higher sodium near surface. pH higher at the surface. This site's abiotic characteristics overlap with R028BY073NV. R028BY009NV is likely a community phase of R028BY073NV. ... R028BY009NV – SHALLOW SILTY 8-10 P.Z.

B. Aridic-xeric

1 Sandy particle control section ... R028BY005NV – SANDY 8-10 P.Z.

2 Not sandy in the particle control section

i. Silty loam (vesicular) surface and brief ponding. ... R028BY056NV – SILT FLAT

ii. Not as above. Gravels or coarser rock fragments over 10 percent cover on the surface. No ponding. ... R028BY014NV – LOAMY PLAIN 8-10 P.Z.

iii. Gravels less than 10 percent on the surface. Surface texture is silt loam. ... R028BY054NV – SILTY PLAIN 8-10 P.Z.

iv. Gravels less than 10 percent on the surface. Soil surface texture is silty clay. ... R028BY071NV – SILTY CLAY 8-10 P.Z.

v. Salt/saline affected ... R028BY056NV – SILT FLAT

XB Piedmont Slopes from Limestone

A. Mesic

1 Carbonatic mineralogy/free carbonates

i. Mollic epipedon ... R028BY006NV – SHALLOW CALCAREOUS LOAM 10-12 P.Z.

ii. Ochric epipedon ... R028BY011NV – SHALLOW CALCAREOUS LOAM 8-10 P.Z.

2 Non-carbonatic mineralogy/no free carbonates

i. Soil is less than 50 cm deep. ... R028BY080NV – SHALLOW LOAM 8-10 P.Z.

ii. Soil is greater than 50 cm deep.

b. Soil is greater than 100 cm deep.

1) Ochric epipedon

a) Saline/sodic pH>9 ... R028BY028NV – SODIC TERRACE 8-10 P.Z.

b) Non saline/non sodic

(1) Coarse silty particle control section ... R028BY013NV – SILTY 8-10 P.Z.

(2) Not as above

(a) Calcic horizon present, aridic-xeric ... R028BY010NV – LOAMY 8-10 P.Z.

(c) Calcic horizon absent

(1) Upper fan remnant/receives run on moisture ... R028BY045NV – LOAMY FAN 8-12 P.Z.

(2) Lower fan remnant/less run on moisture influence ... R028BY084NV – COARSE SILTY 6-8 P.Z.

(3) On fan skirts. ... R028BY018NV – SILTY 5-8 P.Z.

2) Mollic epipedon

c) Associated with perennial streams ... F028BY025NV – Mountain Stream Terrace

B. Frigid ... R028BY094NV – CALCAREOUS LOAM 10-14 P.Z.

C. Cryic ... R028BY112NV – Calcareous Mahogany Slope

XC Hills and Mountains

A. meets Pinyon-Juniper soil requirements

1 Argillic horizon

i. Abrupt boundary to the argillic horizon ... F028BY064NV – Shallow Gravelly Mountains 12-16 PZ

ii. **Soil not as above**

a. **Mostly above 7,500 feet elevation. ...** F028BY058NV – PIMO-CELE3/ARTRV/PSSPS-POFE

b. **Mostly found below 7,500 feet elevation. ...** F028BY062NV – PIMO-JUOS/ARTRV/PSSPS-ACTH7

c. **Skeletal ...** R028BY114NV – Volcanic Mountain Savanna

d. **Shallow to bedrock and skeletal ...** F028BY064NV – Shallow Gravelly Mountains 12-16 PZ

iii. **Soils have a thin mollic above the argillic (less than seven inches). ...** F028BY076NV – Cobbly Mountain Slopes 12-16 PZ

2 **Soil not as above**

i. **Soil is lithic ...** F028BY060NV – PIMO-JUOS/ARNO4/PSSPS-ACHY

ii. **Soil is paralithic ...** F028BY083NV – Cobbly Calcareous Mountain Slopes 10-12 P.Z.

iii. **Soils are shallow and calcareous ...** F028BY083NV – Cobbly Calcareous Mountain Slopes 10-12 P.Z.

B. Does NOT meet Pinyon-Juniper soil requirements

1 **Argillic horizon is present**

i. **Abrupt boundary to argillic horizon**

a. **Presence of secondary carbonates ...** R028BY092NV – CALCAREOUS CLAYPAN 14-16 P.Z.

b. **No secondary carbonates**

1) **Soil temperature cryic ...** R028BY036NV – CLAYPAN 14+ P.Z.

2) **Soil temperature frigid**

a) **Soil surface dominated by cobbles. ...** R028BY039NV – COBBLY CLAYPAN 12-14 P.Z.

b) **Soil surface dominated by gravels. ...** R028BY037NV – CLAYPAN 12-14 P.Z.

ii. **Lacks abrupt boundary to argillic**

a. **Mountain ridge, narrow and windy**

1) **Parent material limestone ...** R028BY048NV – CALCAREOUS MOUNTAIN RIDGE

2) **Parent material volcanic ...** R028BY034NV – MOUNTAIN RIDGE 12-14 P.Z.

b. **On a mountain, but not on a ridge.**

1) **Soil temperature is mesic**

a) **Mollic epipedon ...** R028BY093NV – SHALLOW CLAY LOAM 12-14 P.Z.

b) **Ochric epipedon ...** R028BY089NV – SHALLOW CLAY LOAM 10-12 P.Z.

2) **Soil temperature is frigid**

a) **Less than 50 cm deep. ...** R028BY087NV – GRAVELLY CLAY 12-14 P.Z.

b) **Greater than 50 cm deep. ...** R028BY015NV – LOAMY SLOPE 12-16 P.Z.

c) **Greater than 50 cm deep. ...** R028BY026NV – FRACTURED STONY LOAM 14+ P.Z.

d) **Greater than 50 cm deep. ...** R028BY030NV – LOAMY 12-16 P.Z.

3) **Soil temperature is cryic**

a) **Mountain sideslope, smooth to convex ...** R028BY104NV – LOAMY SLOPE 20+

b) **Mountain sideslope, smooth to convex ...** R028BY105NV – CALCAREOUS SLOPE 20+

c) **Mountain sideslope, concave ...** R028BY029NV – LOAMY 16+ P.Z.

2 Soil not as above

i. Soil temperature is mesic

a. Precipitation is about 12 inches. Elevation is about 7,000 feet. Bluebunch wheatgrass is present. ... R028BY090NV – SHALLOW CALCAREOUS HILL 14+ P.Z.

b. Precipitation is about 12 inches. Elevation is about 7,000 feet. Bluebunch wheatgrass is present. ... R028BY008NV – SHALLOW CALCAREOUS SLOPE 10-12 P.Z.

c. Less than 12 inch precipitation. Elevation about 7,000 feet. No bluebunch wheatgrass. ... R028BY016NV – SHALLOW CALCAREOUS SLOPE 8-10 P.Z.

d. Less than 12 inch precipitation. Elevation about 7,000 feet. No bluebunch wheatgrass. ... R028BY059NV – SHALLOW CALCAREOUS HILL 8-12 P.Z.

e. Less than 12 inch precipitation. Elevation about 7,000 feet. No bluebunch wheatgrass. Likely a community phase of R028BY016NV. ... R028BY019NV – LOAMY SLOPE 5-8 P.Z.

ii. Soil temperature is frigid

a. On mountain sideslopes in concave positions. Soil depth is greater than 35 centimeters. ... R028BY079NV – SHALLOW LOAM 10-14 P.Z.

b. On convex mountain sideslopes. Soil is less than 35 centimeters deep. ... R028BY066NV – LIMESTONE HILL

c. On concave mountain sideslopes. ... R028BY088NV – CALCAREOUS LOAM 14-16 P.Z.

d. Supports cottonwoods and larger trees ... F028BY109NV – GRAVELLY STREAMBANK A

iii. Soil temperature is cryic

a. Soil is less than 50 cm deep.

1) Mountain ridges, narrow and windy ... R028BY038NV – MOUNTAIN RIDGE 14+ P.Z.

2) Mountain, and mollic epipedon

b) **Mollic epipedon without being pachic ...** R028BY032NV – STONY MAHOGANY SAVANNA

a) **Pachic mollic epipedon ...** R028BY027NV – SHALLOW CALCAREOUS SLOPE 14+ P.Z.

3) Mountain, and ochric epipedon ... F028BY106NV – PILO-PIFL2/SYOR2/POA

b. Soil is greater than 50 cm deep.

1) Soil depth 50 to 100 cm.

a) **Ochric epipedon, calcareous parent material ...** F028BY072NV – Concave Mountain Slopes

b) **Ochric epipedon, shale parent material**

(1) Snow loading/pH <7 ... R028BY051NV – SNOWPOCKET

c) Concave backslopes with longer snow retention times. ... F028BY072NV – Concave Mountain Slopes

d) Soils have a mollic epipedon. The site is less than 8,500 feet and not associated with rock outcrops. ... R028BY043NV – CALCAREOUS MAHOGANY SAVANNA

2) Soil greater than 100 cm deep.

a) Ochric epipedon ... F028BY107NV – Deep North Facing Mountain Sideslopes

b) Mollic epipedon

(1) Backslopes smooth to convex ... R028BY070NV – MOUNTAIN LOAM 16+ P.Z.

(2) Backslopes smooth to concave

(a) Backslopes concave, limestone parent material

(1) Soil has a calcic horizon. ... R028BY085NV – CALCAREOUS LOAM 16+ P.Z.

(2) Soil does not have a calcic horizon. ... R028BY042NV – MAHOGANY THICKET

(b) Backslopes concave, quartzite parent material ... F028BY067NV – POTR5/SYOR2/BRMA4-ELTR7

c) Skeletal, associated with rock outcroppings ... F028BY049NV – Rocky Convex Mountain Slopes

d) Deep, north-facing slopes ... F028BY107NV – Deep North Facing Mountain Sideslopes

c. Soil greater than 50 cm deep, associated with perennial streams. ... F028BY025NV – Mountain Stream Terrace

XD Piedmont Slopes from Volcanics

A. Argillic horizon

1 Mollic epipedon ... R028BY007NV – LOAMY 10-12 P.Z.

2 Ochric epipedon

i. <50 cm deep ... R028BY089NV – SHALLOW CLAY LOAM 10-12 P.Z.

ii. >50 cm deep ... R028BY086NV – GRAVELLY CLAY 10-12 P.Z.

B. No argillic horizon

1 <36 cm deep ... R028BY040NV – BARREN FAN 8-12 P.Z.

2 >100 cm, without a cambic horizon ... R028BY052NV – DROUGHTY LOAM 8-10 P.Z.

3 >100 cm deep, with a cambic horizon ... R028BY010NV – LOAMY 8-10 P.Z.

4 >100 cm deep with silt loam or fine sandy loam surface textures ... R028BY082NV – LOAMY FAN 12+ P.Z.

XY Hydrologically driven

A. Associated with perennial streams

1 **Water table is less than or equal to 20 inches during the growing season**

i. **Site is between 2,000 and 6,900 feet in elevation. ...** R028BY001NV – WET MEADOW 10-14 P.Z.

ii. **Site is between 4,000 and 7,600 feet in elevation. The water table is deeper than 18 inches. ...** R028BY081NV – MOIST FLOODPLAIN

iii. **Site is between 6,900 and 8,200 feet in elevation. ...** R028BY022NV – WET MEADOW 14+ P.Z.

2 **Water table is greater than or equal to 20 inches during the growing season ...** R028BY095NV – DRY MEADOW 12-16 P.Z.

B. Saline/Salt and sodium affected

1 **Saturation to the surface most of the year ...** R028BY044NV – WETLAND

2 **Soils not as above**

i. **Water table is between 12 and 30 inches during the growing season. ...** R028BY050NV – WET SODIC BOTTOM

ii. **Water table is between 0 and 24 inches during the growing season. ...** R028BY100NV – DRY MEADOW 6-10 P.Z.

iii. **Water table is deeper than 30 inches during the growing season. ...** R028BY004NV – SALINE BOTTOM