

# Major Land Resource Area 026X

## Carson Basin and Mountains

Accessed: 02/05/2025

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### Ecological site keys

#### Sierra Influenced Ranges (Mesic)

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I. Soil is very shallow (less than 10 inches) to shallow (10 to 20 inches) to a restrictive layer (duripan, paralithic, and/or lithic bedrock).

A. Soil has an increase in clay that restricts plant growth, site typically dominated by Lahontan or low sagebrush or pinyon and juniper.

1 Site is located on a ridge or mountain summit. Slope is between 2 to 15 percent. ... F026XY064NV – Shallow Clayey Summit 11-14 P.Z. PIMO-JUOS/ARAR8/ACTH7

2 Site is located on hills, mountains, fan remnants. Slopes range from 2 to 75 percent. Dominant vegetation is Lahontan or low sagebrush. Site R026XY033NV Sandy Claypan 8-10 P.Z. fit into this category, however, the site needs to be verified in the field.

i. Restrictive layer is 8 to 14 inches deep. ... R026XY090NV – SCABLAND 10-14 P.Z.

ii. Restrictive layer is 14 to 20 inches deep.

a. Average annual precipitation is typically between 8 to 10 inches. ... R026XY041NV – GRAVELLY CLAY 8-10 P.Z.

b. Average annual precipitation is typically between 10 to 12 inches. See also R026XY023NV Claypan 10-12 P.Z. ... R026XY050NV – GRAVELLY CLAY 10-12 P.Z.

B. Soil does not have an increase in clay below the soil surface that influences the site vegetation (sites are not dominated by Lahontan or low sagebrush).

1 Site is typically located lower on the landscape, between 4000 and 6000 feet. Average annual precipitation is typically less than 10 inches. See also R026XY011NV South Slope 8-12 P.Z. ... R026XY022NV – STONY SLOPE 8-10 P.Z.

2 Site is typically found from 5000 to 9000 feet in elevation and average annual precipitation is typically greater than 10 inches.

i. Soil has less than 15 percent rock fragments on the soil surface and subsurface. Surface soil texture is loam. Dominant vegetation is pinyon pine and low sagebrush. ... F026XY093NV – Very Shallow Loamy Hills PIMO/ARAR8/ACTH7-POA

ii. Soil has greater than 15 percent rock fragments on the soil surface and subsurface. Textures may be loam or coarser or always modified by rock fragments. Dominant vegetation may be trees or shrubs.

a. Soils are alfisols, which develop under long term tree cover. Site is dominated by pinyon trees. ... F026XY060NV – Shallow Loamy Slopes 12-16 P.Z PIMO/ARTRV/ACTH7

b. Soils are typically mollisols or entisols. Site may be dominated by trees or shrubs.

1) Soils are well developed with a dark top horizon (mollic epipedon). I would field check all the tree sites to make sure there has not been encroachment onto a sagebrush site.

a) Dominant vegetation is big sagebrush.

(1) Soils are typically shallow to moderately deep. Juniper is often a component in the plant community even under reference conditions. ... R026XY017NV – LOAMY HILL 10-12 P.Z.

(2) Soil is typically very shallow to shallow. Juniper is not a component in the plant community under reference conditions. ... R026XY015NV – SHALLOW LOAM 10-12 P.Z.

b) Site is dominated by juniper or pinyon, or a combination of both trees.

(1) Site is dominated by both pinyon and juniper trees. ... F026XY062NV – Shallow Sandy Loam Slope 10-14 P.Z

(2) Site is dominated by pinyon trees. See also F026XY069NV and F026XY104NV. ... F026XY044NV – Shallow Sandy Slope 10-12 P.Z.

2) Soils are less developed and do not have a dark upper horizon.

a) Soil is very shallow (less than 10 inches to a restrictive layer).

(1) Site is typically found at elevations above 6000 feet. ... F026XY061NV – Very Shallow Steep Sandy Slopes 12-14 P.Z.

(2) Site is typically found at elevations below 7000 feet.

(a) Site is found on hills and pediments (low relief, erosional footslope). ... R026XY029NV – ERODED SLOPE 10-12 P.Z.

(b) Site is found on mountain slopes. ... F026XY065NV – Very Shallow Sandy Side Slope 12-14 P.Z. PIPO/ERRO10/CAREX

b) Soil is shallow with 10 to 20 inches to a restrictive layer.

(1) Site is typically found on south slopes and dominated by shrubs. Annual above ground production is greater than 400 pounds. ... R026XY018NV – GRANITIC SOUTH SLOPE 10-12 P.Z.

(2) Site is typically found on south slopes and dominated by trees. Annual above ground production is less than 300 pounds. ... F026XY104NV – Shallow Coarse Sandy Slopes 16+ P.Z. PIMO WSG:1R1

II. Soil is moderately deep (20 to 40 inches) to very deep 40 to over 60 inches).

A. Surface soil texture is clay. The difference between 091NV and 027NV should be precipitation amount and probably elevation, however, the NASIS data suggest that these site concepts have not been used accurately and there is mixing of concepts between sites. See also R026XY091NV Churning Claypan 10-12 P.Z. and R026XY037NV Clay Basin. ... R026XY027NV – CHURNING CLAY 8-10 P.Z.

B. Surface soil texture is sandy, sandy loam, much coarser than the sites above.

1 Site has a water table within 60 inches of the soil surface.

i. Site occurs along water ways, flood plains or stream terraces.

a. Site typically occurs at elevations less than 5000 feet. ... F026XY059NV – Sandy Flood Plain 8-10 P.Z

b. Site typically occurs at elevations greater than 6000 feet. ... F026XY074NV – Bouldery Stream Terrace 14-16 P.Z. POBAT WSG:6W1610

ii. Site occurs in concave landscape positions, but is not associated with flood plains or stream terraces. ... F026XY068NV – Poorly Drained Stream Terrace POTR5 WSG:2W1710

2 Site does not have a water table within 60 inches.

i. Site is only found at slopes less than 10 percent and does not have surface or subsurface rocks over 10 percent. ... R026XY096NV – SANDY PLAIN

ii. Site found at all slopes, but soil surface and subsurface have rocks over 10 percent.

a. Site has a darker upper soil horizon (mollisol). All of these mollisols probably have overextended the site concepts. Certain soil series should be reevaluated for correlation to a different site.

1) Sites are typically lower on the landscape, between 4000 and 6000 feet, and have precipitation that averages between 10 and 12 inches.

a) Site has an increase in clay in the soil subsurface that influences species composition. Site is dominated by low sagebrush. ... R026XY023NV – CLAYPAN 10-12 P.Z.

b) Site may have an increase in clay in the subsurface, but not enough to influence rooting depth of shrubs. Dominant shrub is big sagebrush. See also R026XY017NV and R026XY026NV. ... R026XY010NV – LOAMY 10-12 P.Z.

2) Site are typically higher on the landscape, between 6000 and 8000 feet, and have precipitation that averages between 12 and 14 inches.

a) Site is dominated by pinyon trees. See also F026XY071NV. ... F026XY069NV – Shallow Clayey Summit 11-14 P.Z. PIMO/ARTRV/POA-KOMA

b) Site is dominated by big sagebrush. See also R026XY046NV Granitic Slope 12-14 P.Z. ... R026XY005NV – LOAMY 12-14 P.Z.

b. Site has a lighter soil upper horizon (not mollic, no mollic colors).

1) Soil surface texture is loamy sand to coarse sand. ... R026XF035CA – Ashy Loamy Sand (BLM)

2) Soil surface texture is loamy sand with cobble sized rocks on the soil surface. ... R026XF041CA – Rocky Loam Benches (BLM)