# Major Land Resource Area 027X
# Fallon-Lovelock Area

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## Ecological site keys

### Lahontan Basin LRU Key

1 Soils formed in lacustrine influenced alluvium. Landforms are dominated by alluvial flats and plains. Slopes are less than 10 percent and the elevation is typically less than 1,350 meters (4,429 feet)....Basins LRU: The majority, but not all, of this area was underwater during the most recent high stand of Lake Lahontan.

1' Landforms and elevations not as above... go to 2

2 Soils formed in mixed alluvium with some residuum or colluvium. The landforms are dominated by piedmont slopes. The elevations range from 1,350 to 1,780 meters (4,429 to 5,840 feet).... Hills and fans: Low hills and rock pediments characterized by typic aridic soil moisture regime are also included in this LRU.

2' Soils formed in residuum and/or colluvium. The landforms are dominated by mountains and the elevations are greater than 1,780 meters (5,840 feet).... Mountains

### Basins

I. Soil is moderately well, somewhat poorly, poorly, or very poorly drained.

A. Soil is very poorly drained with long duration ponding. ... R027XY001NV – WETLAND

B. Site does not experience long duration ponding.

1 Sodium adsorption ratio is less than 13.

i. Seasonal water table is within 90 to 150 cm (35 to 59 inches). Site occasionally floods with an irregular decrease in organic matter. Clay is less than 5 percent. ... F027XY038NV – Flood Plain

ii. Seasonal water table is within 90to 150 cm (35 to 59 inches), but other characteristics not as above.

a. Sodium adsorption ratio is less than 13. (See also R027XY004NV and R027XY069NV) ... R027XY002NV – MOIST FLOODPLAIN

b. Sodium adsorption ratio is greater than 13. (See also R027XY090NV) ... R027XY005NV – SALINE MEADOW

2 Sodium adsorption ratio is greater than 13.

i. Electrical conductivity is less than 16 and the water table is 30 to 90 cm (12 to 35 inches). ... R027XY006NV – SALINE BOTTOM

ii. Electrical conductivity is greater than 16.

a. Water table is between 0 and 50 cm (0 and 19 inches). ... R027XY089NV – SODIC BOTTOM

b. Water table is between 50 and 100 cm (19 and 39 inches). ... R027XY077NV – MOIST SALINE FLAT

II. Soil is well or excessively drained.

A. Site has sandy texture throughout and does not have rock fragments (site is typically excessively drained).

1 Site occurs on dunes.

i. Sodium adsorption ratio is less than 4. ... R027XY023NV – DUNES 4-8 P.Z.

ii. Sodium adsorption ratio is greater than 4. ... R027XY016NV – SODIC DUNES

B. Soil not as above.
1 Site occurs in an ephemeral drainageway. ... R027XY022NV – VALLEY WASH
2 Landform not as above.
i. Site receives less than 5 inches of mean annual precipitation (MAP).
a. Site has greater than 35 percent rock fragments. ... R027XY043NV – COARSE GRAVELLY LOAM 3-5 P.Z.
b. Site has less than 35 percent rock fragments. ... R027XY060NV – SANDY 3-5 P.Z.
ii. Site receives more than 5 inches MAP.
a. Sodium adsorption ratio is greater than 30.
1) Site experiences occasional ponding, is on less than 1 percent slopes, and occurs on alluvial flats. (See also R023XG047CA and R027XY094NV) ... R027XY025NV – SODIC FLAT
2) Site does not experience ponding and occurs on fan skirts and/or lake terraces.
a) Soil has thin platy structure and has a well developed vesicular pores in the A horizon. It is typically located on fan skirts. (See also R024XY003NV and R023XG046CA) ... R027XY024NV – SODIC TERRACE
b) Soil has a thin platy structure and a well developed vesicular pores in the A horizon. It is typically found above fan skirts. (See also R027XY018NV) ... R027XY013NV – LOAMY 4-8 P.Z.
c) Soil has a thick platy structure and is typically found on lake terraces. ... R027XY041NV – DEEP SODIC FAN
b. Sodium adsorption ratio is less than 30.
1) Soil does not have a Bt horizon (less than 18 percent clay in the particle size control section). The water table is below 200 cm (79 inches). (See also R027XY078NV, this site is less calcareous throughout) ... R027XY036NV – DRY SODIC TERRACE
2) Soil has a Bt horizon (clay is between 18 and 35 percent in the particle size control section). This site does not have a water table. ... R027XY050NV – COARSE GRAVELLY LOAM 4-8 P.Z.

## Hills and Fans

I. Soil moisture regime is typic aridic.
A. Soil depth is less than 50 cm (19 inches) to a root restrictive layer.
1 Soil has granite parent material. ... R027XY047NV – ERODED GRANITIC SLOPE
2 Parent material not as above.
i. Soil formed in lacustrine deposits ... R027XY093NV – STONY TERRACE 4-8 P.Z.
ii. Soil not as above.
a. Site found on a dominantly south aspect. ... R027XY017NV – SOUTH SLOPE 4-8 P.Z.
b. Site not found on a south aspect.
1) Site occurs on summits. ... R027XY015NV – STONY LOAM 4-8 P.Z.
2) Landscape position not as above.
a) Soil lacks a subsurface clay accumulation (no argillic horizon). ... R027XY027NV – BARREN GRAVELLY SLOPE 4-8 P.Z.
b) Soils have subsurface clay accumulation.
(1) Soils are shallow to a duripan. ... R027XY018NV – GRAVELLY LOAM 4-8 P.Z.
(2) Soil lacks a duripan. ... R027XY019NV – STONY SLOPE 4-8 P.Z.
B. Soil is not as above, greater than 50 cm (19 inches) to a root restrictive layer.

1 Soil is somewhat excessively drained or excessively drained.

i. Site occurs on dunes. ... R027XY023NV – DUNES 4-8 P.Z.

ii. Site does not occur on dunes.

a. Site occurs on sandsheets. ... R027XY009NV – SANDY 5-8 P.Z.

b. Site occurs on drainageways with occasional flooding. ... R027XY022NV – VALLEY WASH

2 Soils are well drained.

i. Soil is characterized by an argillic horizon (increase subsurface clay accumulation) and is loamy sand to loam on the soil surface. ... R027XY013NV – LOAMY 4-8 P.Z.

ii. Soil is not as above and is effervescent throughout.

a. Soil is violently effervescent throughout with a silt loam surface texture. ... R027XY014NV – COARSE SILTY 4-8 P.Z.

b. Effervescence is strongest in the Bk horizon. The pH is greater than 9.0 in the Bk. Soil has a gravelly sandy loam surface texture. ... R027XY050NV – COARSE GRAVELLY LOAM 4-8 P.Z.

II. Soil moisture is aridic trending xeric.

A. Soils were formed in alluvium.

1 Soil is somewhat excessively drained or excessively drained.

i. Site occurs on dunes and is sandy throughout. ... R027XY053NV – DUNES 8-10 P.Z.

ii. Site occurs in ephemeral drainageways. ... R027XY029NV – GRAVELLY FAN 8-10 P.Z.

2 Soil is well drained.

i. Soil parent material is granitic. ... R027XY067NV – GRANITIC LOAM 8-10 P.Z.

ii. Parent material is not granitic.

a. Elevation is less than 5,000 feet and occurs on inset fans. ... R027XY008NV – DROUGHTY LOAM 8-10 P.Z.

b. Elevation is greater than 5,000 feet and occurs on inset fans. ... R027XY045NV – SANDY 8-10 P.Z.

B. Soils were formed in residuum and/or colluvium.

1 Parent material is volcanic or mixed.

i. Site is found predominately on south aspects. ... R027XY051NV – SOUTH SLOPE 8-10 P.Z.

ii. Site is not found on south aspects.

a. Soil profile has an abrupt boundary to a Bt horizon (abrupt increase clay accumulation). ... R027XY020NV – SHALLOW CLAYPAN 8-10 P.Z.

b. Soils lack an abrupt boundary with clay accumulation.

1) Soil is loamy and rocky with less than 35 percent clay. ... R027XY007NV – LOAMY SLOPE 8-10 P.Z.

2) Soils are clayey and rocky with more than 35 percent clay.

a) Soils have carbonate accumulation on the bedrock contact. This soil/site supports little sagebrush (Artemisia arbuscula ssp. longicaulis). ... R027XY070NV – DROUGHTY CLAYPAN 8-10 P.Z.

b) Soil profile lacks carbonate accumulation on the bedrock contact. Soil/site supports black sagebrush (Artemisia nova). ... R027XY032NV – SHALLOW CALCAREOUS LOAM 10-12 P.Z.

2 Soils formed in granitic parent material.

i. Soil is characterized by a mollic epipedon. ... R027XY079NV – GRAVELLY CLAYPAN 8-10 P.Z.

ii. Soil is characterized by an ochric epipedon.

a. Soil has less than 18 percent clay and is on greater than 15 percent slopes...R027XY063NV

b. Soil has greater than 18 percent clay. ... R027XY068NV – GRANITIC CLAYPAN 8-10 P.Z.

## Mountains

I. Soils are formed in alluvium and are very deep.

A. Soils are poorly drained with a seasonal high water table within 50 cm (19 inches) of the soil surface. The slopes are less than 5 percent. ... R027XY004NV – WET MEADOW 8-12 P.Z.

B. Soils are well drained. The site receives fun in moisture, but does not have a water table. ... R027XY003NV – LOAMY BOTTOM

II. Soils were formed in residuum and/or colluvium.

A. Soils are derived from limestone and or dolostone... F027XY053NV

B. Soils are derived from granitic parent material.

1 Soils are less than 50 cm (19 inches) deep. ... R027XY072NV – GRANITIC SLOPE 10-12 P.Z.

2 Soils are 50 to 100 cm (19 to 39 inches) deep. ... R027XY073NV – GRANITIC SLOPE 12-14 P.Z.

C. Soil are are derived from volcanic or mixed parent material.

1 Soil is characterized by an ochric epipedon.

i. Site is found on south aspects. Soils have an argillic horizon (increase in clay accumulation). ... R027XY051NV – SOUTH SLOPE 8-10 P.Z.

ii. Site in found on various aspects and soils lack an argillic horizon. ... F027XY082NV – Very Steep Shallow Loam

2 Soil is characterized by a mollic epipedon.

i. Soil is less than 50 cm (19 inches) deep.

a. Site occur son summits and ridges in a convex-convex landform shape. ... R027XY083NV – MOUNTAIN RIDGE

b. Landform is not as above. Site occurs on backslopes on linear or slightly concave slopes.

1) Soil has less than 35 percent clay in the particle size control section.

a) Site has a mesic soil temperature regime. ... F027XY081NV – Shallow Rocky Loam

b) Soil has a frigid soil temperature regime....027XY080NV

2) Clay is greater than 35 percent in the particle size control section.

a) Slopes are less than 30 percent. ... R027XY087NV – CLAYPAN 14+ P.Z.

b) Slopes are greater than 30 percent. ... R027XY046NV – COBBLY CLAYPAN 12-14 P.Z.

ii. Soil is deeper than 50 cm (19 inches).

a. Soil is 50 to 100 cm (19 to 39 inches) deep.

1) Soil has less than 35 percent rock fragments and less than 35 percent clay in the particle size control section. ... R027XY054NV – LOAMY SLOPE 10-12 P.Z.

2) Soil has greater than 35 percent rock fragments and greater than 35 percent clay in the particle size control section. ... R027XY079NV – GRAVELLY CLAYPAN 8-10 P.Z.

b. Soil is deeper than 39 inches to a restrictive layer.

1) Soil has a thick mollic epipedon (greater than 50 cm thick, or pachic).

a) Clay is less than 27 percent in the particle size control section. ... R027XY086NV – LOAMY 16+P.Z.

b) Clay is greater than 27 percent in the particle size control section....023XY041NV

2) Mollic epipedon is less than 50 cm (19 inches) thick. See also 027XY085NV. ... R027XY084NV – MOUNTAIN SHOULDER 16+ P.Z.