

# Major Land Resource Area 024X

## Humboldt Basin and Range Area

Accessed: 05/10/2025

---

### Ecological site keys

#### Lacustrine influenced basins and playas

---

- I. Soil characterized by a typic aridic soil moisture regime. These soils have physical and chemical properties that keep them dry throughout the year. There is little to no leaching and salts accumulate in the soil profile.
  - A. Soil characterized by water table within 100cm of surface (somewhat poorly or poorly drained soils).
    - 1 Soils are poorly drained.
      - i. Soils, relative to RXY024XY002OR, have more of an ability to provide water to plants (higher available water capacity). ... R024XY009NV – SALINE MEADOW
      - ii. Soils, relative to RXY024XY009NV, have less of an ability to provide water to plants (lower available water capacity). ... R024XY002OR – SODIC MEADOW 6-10 PZ
      - iii. Salt-affected near the surface of floodplains ... R024XY063NV – SALINE FLOODPLAIN
    - 2 Soils are typically somewhat poorly drained.
      - i. Site is typically in elevations greater than or equal to 5000 feet. ... R024XY008NV – SODIC FLAT 8-10 P.Z.
      - ii. Site is typically in elevations below 5000 feet.
        - a. Compared with R025XY015NV, this site typically has a longer duration of flooding. More study on soil moisture is needed. ... R024XY011NV – SODIC FLAT 6-8 P.Z.
        - b. Compared with R024XY011NV this site has a briefer duration of flooding. More study on soil moisture is needed. ... R024XY015NV – DEEP SODIC FAN
        - c. Compared with R024XY011NV and R024XY015NV the soil profile is potentially wetter longer, higher in the profile to make the site unfavorable for Basin wildrye. ... R024XY114OR – SODIC LAKE TERRACE
  - B. Soils are well, somewhat excessive, or excessively drained (no water table within 150cm of soil surface).
    - 1 Soil sandy throughout, water removed from soil rapidly
      - i. Sodium adsorption ratio (SAR) below 100cm greater than 13 ... R024XY055NV – SANDY 5-8 P.Z.
      - ii. Sodium adsorption ratio (SAR) less than 13 throughout ... R024XY066NV – SODIC DUNES
      - iii. SAR over 45, thin layer of loess ... R024XY041NV – GRAVELLY FAN
    - 2 Soil not sandy throughout, water removed from the soil readily but NOT rapidly
      - iv. Soil typically has a fine-silty or fine particle size class (have a small percentage of fine sands or coarser including fragments up to 7.5 cm in diameter).
        - a. Primary shrub is sickle saltbush. An abiotic factor determining why the dominance of sickle saltbush is pending. ... R024XY012NV – SALINE TERRACE 6-8 P.Z.
        - b. Dominant shrub is Shadscale saltbush followed by greasewood as a second dominant shrub. Abiotic factor to differentiate the dominance compared to R024XY013OR is pending. ... R024XY003NV – SODIC TERRACE 6-8 P.Z.
        - c. Dominant shrub is greasewood. Second dominant shrub is Shadscale saltbush. Abiotic factor to differentiate the dominance compared to R024XY0003NV is pending. ... R024XY013OR – LOW SODIC TERRACE 6-10 PZ

d. Dominant shrub is greasewood. Second dominant shrub is Shadscale saltbush. Abiotic factor to differentiate the dominance compared to R024XY0003NV is pending. This site is very similar (if not the same as) R024XY013OR ... R024XY120OR – SILTY LOW SODIC TERRACE 6-10 PZ

v. Soils at site typically have less than 18 percent clay in the subsoil and greater than 15 percent fine sand or coarser including fragments up to 7.5 cm in diameter (coarse-loamy or coarse-silty). ... R024XY067NV – SHALLOW SILTY 5-8 P.Z.

II. Soil characterized by an aridic bordering on xeric soil moisture regime. These soils experience brief periods of moisture in the soil profile typically when plants are dormant. Leaching is minimal and salts may accumulate in the soil profile.

A. Soils are moderately well to excessively drained.

1 Soil sandy throughout, water removed from soil rapidly ... R024XY001NV – DUNES 6-10 P.Z.

2 Soil not sandy throughout, water removed from the soil readily but NOT rapidly

i. Soil sodium effected in surface expressed by supporting greasewood and other salt tolerant species and high pH in the 9s.

a. Soils at this site are mesic (warmer compared to R024XY625OR and R024XY645OR). ... R024XY022NV – SODIC TERRACE 8-10 P.Z.

b. Soils at this site are mesic (warmer compared to R024XY625OR and R024XY645OR). ... R024XY014OR – SODIC TERRACE 6-10 PZ

c. Temperature regime of the soils at this site are frigidcolder compared to R024XY022NV and R024XY014OR. ... R024XY625OR – ALKALINE BASIN 8-10 PZ

d. Temperature regime of the soils at this site are frigid (colder compared to R024XY022NV and R024XY014OR). Soils at this site may experience brief periods of ponding and are more productive relative to the other sites that drop out at the same spot in the key. ... R024XY645OR – SILTY ALKALINE BOTTOM 8-10 PZ

ii. Soil not strongly sodium effected (can support Wyoming and basin sagebrush).

a. Soil typically has greater than 35 percent clay in the subsoil (is fine textured or ashy). ... R024XY008OR – CLAYEY PLAYETTE

b. Soil typically has less than 35 percent clay in the subsoil (has a fine-loamy or coarse-loamy particle size).

1) Site is typically at elevations below 4000 feet. ... R024XY010OR – ARID BASIN 6-10 PZ

2) Site is typically at elevations above 4000 feet.

a) Soil at this site typically does not have a clay layer (argillic horizon).

(1) pHs typically do not go above 8.8 in the soils at this site.

(a) Soils at this site are typically on inset fans. ... R024XY004OR – DRY FLOODPLAIN 6-10 PZ

(b) Soils at this site are typically on lake terrace landforms. ... R024XY121OR – SILTY SODIC TERRACE 6-10 PZ

(c) Soils at this site are typically on lakebed landforms. ... R024XY609OR – DROUGHTY BOTTOM 6-10 PZ

(2) pH typically ranges into the 9's at depth for the soil at this site. ... R024XY113OR – SODIC FAN 6-10 PZ

b) Soil at this site typically has a clay layer (argillic horizon). ... R024XY019OR – SILT LOAM TERRACE 8-11 PZ

3 Soils may have brief or occasional ponding. ... R024XY007OR – DRY PONDED CLAY 6-10 PZ

B. Soils are somewhat poorly or poorly drained

1 Soil is characterized by periodic saturation (moisture regime not aquic). See also R024XY608OR.

i. Site is typically on depressional lake beds. ... R024XY006OR – LAKE TERRACE

ii. Site is typically on floodplains and inset fans. ... R024XY006NV – DRY FLOODPLAIN

iii. Site is typically on terraces of floodplains and alluvial fans. ... R024XY608OR – ARID BOTTOM 6-10

PZ

2 Soil characterized by continuous saturation (aquic soil moisture regime).

i. Soil characterized by a mollic epipedon

a. Seasonal water table less than 30cm from soil surface ... R024XY043NV – WET MEADOW 6-8 P.Z.

b. Seasonal high water table greater than 30cm from soil surface ... R024XY064NV – SODIC BOTTOM

ii. Soil characterized by an ochric epipedon

a. Soil characterized by greater than 35 percent clay in the particle size control section (clayey, fine, smectitic classification). See also R024XY044NV. ... R024XY010NV – SODIC FLOODPLAIN

b. Soil characterized by less than 35 percent clay in the particle size control section (soil not clayey or fine)

1) water table 71 to 100cm from the soil surface ... R024XY007NV – SALINE BOTTOM

2) water table 36 to 100cm, soil characterized by longer duration saturation above 50cm ... R024XY009NV – SALINE MEADOW

iii. Soil has a histic epipedon. Soil saturated at or near the surface year round. ... R024XY127NV – Lakeshore Marsh

III. Soils at these sites have an aquic moisture regime (typically too moist to support most desert shrubs). ... R024XY127NV – Lakeshore Marsh