

# Major Land Resource Area 025X

## Owyhee High Plateau

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### Ecological site keys

#### Piedmont slope (Upper Humboldt Plains)

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I. Soil characterized by a mollic epipedon.

A. soil depth is less than 50 cm (shallow).

2 moisture class xeric is bordering on (subclass) aridic. ... R025XY315UT – Upland Shallow Gravelly Loam (Thurber Needlegrass)

3 Moisture class and subclass are both xeric.

ii. Soil at this site is lacking an O horizon (plant material) on the surface. ... R025XY007NV – GRAVELLY LOAM 12-16 P.Z.

i. Soil at this site has an Oi horizon on the surface (intermediately decomposed plant material).

a. Site is typically below elevations of 8000 feet. ... R025XY031NV – STONY MAHOGANY SAVANNA

b. Site is typically at elevations greater than 8000 feet. ... R025XY071NV – MAHOGANY SAVANNA 14-16 P.Z.

4 Soil moisture class is aridic bordering on xeric (moisture subclass). ... R025XY046NV – FRACTURED STONY LOAM 14+ P.Z.

B. soil greater than 100cm deep (deep to very deep)

1 Mollic epipedon less than 50cm thick, calcareous parent material

i. Soil characterized by greater than 35% rock fragments in the Particle Size Control Section.

a. Soil is characterized by less than 35% clay in the particle size control section.

1) This soil at this site has an Oi and Oe horizon (slightly and moderately decomposed plant material). ... R025XY030NV – MAHOGANY THICKET

2) This soil of this site lacks significant plant material on the surface.

a) Calcium Carbonates percentage is 15 percent or less. ... R025XY036ID – SOUTH SLOPE LOAMY 12-16

b) Calcium Carbonate percentage is greater than 15. ... R025XY318UT – Upland Stony Loam (Black Sagebrush)

b. Soil is characterized with more than 35% clay in the particle size control section. ... R025XY320UT – Upland Stony Clay (Low Sagebrush)

ii. Soil is characterized by less than 35% rock fragments in the Particle Size Control Section. ... R025XY310UT – Upland Loam (Basin Big Sagebrush)

2 Mollic epipedon greater than 50cm thick.

i. Soil well drained, not characterized by a seasonal high water table.

a. Site is on stream terraces, flood plains or drainageways. ... R025XY003NV – LOAMY BOTTOM 8-14 P.Z.

b. Site is on mountain slopes, hillslopes and escarpments.

1) Site is in a water receiving position on the landscape.

a) Soil typically has greater than 35 percent clay in the particle size control section. ... R025XY047NV – CLAY SEEP

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

R025XY001ID – ASPEN THICKET

2) Site is on a water shedding position on the landscape.

a) Mean Annual Precipitation is typically 16 inches or less. Site is exclusive to north slopes. ...

R025XY023ID – NORTH SLOPE LOAMY 16-22

b) Mean annual precipitation is typically greater than 16 inches. Site is on all aspects.

(1) Maximum clay content is typically below 30 percent.

(a) Rock fragments in the particle size control section are less than 35 percent. ...

R025XY022ID – LOAMY 16-22

(b) Rock fragments in the particle size control section are greater than 35 percent. ...

R025XY056NV – LOAMY 14-16 P.Z.

(2) Maximum clay content is typically greater than 30 percent but less than 35 percent. ...

R025XY029NV – DEEP LOAMY 14+ P.Z.

ii. Soil poorly drained, characterized by a seasonal high water table within 150cm of the soil surface.

a. Seasonal high-water table with 15 to 60cm from the soil surface. Willow is significant part of the plant community. ... R025XY001NV – MOIST FLOODPLAIN

b. Seasonal high-water table within 15 to 60cm from the soil surface. Plant community dominated by grass/grass-like. Willow is not a significant part of the plant community. ... R025XY005NV – WET MEADOW

c. Seasonal high-water table within 50 to 150cm from the soil surface. Plant community dominated by grass/grass-like. ... R025XY006NV – DRY MEADOW

C. The soil depth is 50 to 100 cm.

1 Depth of mollic epipedon is from surface to less than 50 cm. Mean Annual Precipitation is 12 inches or less.

i. Site is on north aspects only. ... R025XY034OR – SHRUBBY NORTH SLOPES 13-16 PZ

ii. Site is on all aspects.

a. Soil typically has 5 or less percent rocks on the surface. ... R025XY064OR – SHRUBBY SHALLOW CLAYPAN 13-16 PZ

b. Soil typically has more than 5 percent rocks on the surface. ... R025XY014NV – LOAMY 10-12 P.Z.

2 Depth of mollic epipedon is from surface to near 50 cm or greater. Mean Annual Precipitation is typically 12 inches or more.

ii. Mean Annual Precipitation is typically less than 20 inches. Available Water Holding Capacity (AWC) is typically greater than 2 inches. ... R025XY027NV – LOAMY 12-14 P.Z.

iii. Mean Annual Precipitation is typically greater than 20 inches. ... R025XY030ID – MOUNTAIN BRUSH 18-22

II. Soil characterized by an ochric epipedon

A. restrictive layer less than 50cm from the soil surface (shallow rooting depth)

1 less than 18 percent clay in the PSCS

i. soil vitrandic, characterized by greater than 15 percent ash throughout the soil profile or ashy soil textures throughout the soil profile ... R025XY007ID – ASH 10-14

ii. Soil not vitrandic, less than 15% ash throughout the soil profile. Carbonates disseminated and soil effervescent throughout the soil profile. ... R025XY025NV – CHALKY KNOLL

2 greater than 18 percent clay in the particle size control section

i. 18 to 27% clay in the particle size control section

a. greater than 35% rock fragments, by volume, throughout the soil profile (soil skeletal), subsurface horizon cemented by silica (duripan) present between 36-50cm ... R025XY085NV – Juniper Savanna

b. subsurface horizon cemented by silica (duripan) present greater than 50cm from the soil surface,

less than 35% rock fragments, by volume, throughout the soil profile, ... R025XY014NV – LOAMY 10-12 P.Z.

ii. greater than 27 percent clay in the particle size control section

a. between 27 to 35 percent clay particle size control section ... R025XY021NV – SHALLOW LOAM 8-12 P.Z.

b. greater than 35 percent clay in the particle size control section ... R025XY018NV – CLAYPAN 10-12 P.Z.

B. restrictive layer between 50 to 100 cm from the soil surface (soil moderately deep)

1 Soil temperature regime is typically mesic.

i. Soil is characterized by an ashy modifier.

a. The texture of the surface horizon is loamy fine sand. ... R025XY045NV – ASHY LOAM 8-10 P.Z.

b. The texture of the surface horizon is sandy loam. ... R025XY066NV – ASHY LOAM 10-12 P.Z.

ii. Soil is not characterized by an ashy modifier. ... R025XY322UT – Upland Juniper Savanna (Utah Juniper)

2 Soil temperature regime is typically frigid.

i. Soil parent material is alluvium. ... R025XY016ID – SHALLOW CALCAREOUS LOAM 10-16

ii. Soil parent material is residuum derived from tuffaceous rocks. ... R025XY013NV – CHURNING CLAY 8-12 P.Z.

C. restrictive layer greater than 100 cm from the soil surface (soil deep)

1 less than 28 percent clay in the particles size control section. site occurs in run-on landscape position.

i. Soil is well drained. ... R025XY070NV – LOAMY FAN 8-10 P.Z.

ii. Soil is somewhat poorly drained. ... R025XY062NV – STREAM TERRACE

2 particle size control section has 28 to 35 percent clay. Site occurs in run-off landscape position.

i. duric (subsurface horizon weakly to strongly cemented by silica ) feature present between 50 to 100cm ... R025XY019NV – LOAMY 8-10 P.Z.

ii. Duric feature absent ... R025XY015NV – SOUTH SLOPE 8-12 P.Z.

3 Soil of this site has greater than 35 percent clay.

i. Soil drainage class is poorly or very poorly drained. ... R025XY048NV – CLAY BASIN

ii. Soil is well drained. ... R025XY050NV – STONY BOTTOM

III. Soil has an umbric epipedon. ... R025XY037ID – CEANOTHUS THICKET 16-24