

# Major Land Resource Area 011X Snake River Plains

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## Ecological site keys

### MLRA 11 Key to the Keys

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#### I. Site located in Idaho

- A. Site located in the upper Snake River plains East of lake Walcott.
- B. Site located in the Central Snake River Plains.
- C. Site located in the western Snake River Plains or MLRA wide in Idaho.

#### II. Site located in Oregon

### MLRA 11XB Upper Snake River Plains Key

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#### I. Site occurs on uplands.

##### A. Slopes greater than 30% on southerly aspects.

1 Soils are non- stony Site occurs in 11-13" PZ at 4000-5500 ft. elevation. Soils are deep loams formed in thick loess. ...

R011XB012ID – South Slope Loamy 11-13 PZ ARTRW8/PSSPS

##### B. Slopes less than 30% on all aspects (non-aspect).

1 Site occurs in closed basin, run-in or depressional areas.

i. Site occurs on nearly level slopes. Soils are deep silt loams and clay loams with mottles within 20 inches of the surface. Internal drainage ranges from moderately somewhat poorly drained. 8-12" inch PZ and 4500 to 5500 ft. ... R011XB008ID – Playa 8-12 PZ ARTR4/PSSPS

2 Site does Not occur in closed basin, run-in or depressional areas.

i. Soils are non-stony.

a. Soil depth is moderately deep to deep.

1) Site occurs in 7-10" inch PZ and elevations of 4900 to 5500 ft. The site occurs of rolling basalt plains and sedimentary lake beds. Soils are loams and may be gravelly. ... R011XB019ID – Loamy 7-10 PZ ARTRW8/HECOC8-ACHY

2) Site occurs in 8-12" PZ and elevations of 4000 to 5000 ft. There is lime accumulation at depths of 8-18 inches. Small lava rock outcrops areas may be scattered throughout the site. ... R011XB001ID – Loamy 8-12 PZ

3) Site occurs in 8-12" PZ and elevations of 4000 to 5500 ft. Lime accumulation at 10-18". ... R011XB006ID – Loamy 8-12 PZ ARTRT/LECI4

4) Site occurs in 12-16" PZ and elevations of 4000 to 5000 ft. Small lava rock outcrop areas may be scattered throughout the site. The soils are high in ash. Lime is leached to below 15 inches. ... R011XB007ID – Loamy 12-16 PZ ARTRT/LECI4

5) Site occurs in 12-16" PZ and elevations of 4000 to 5500 ft. Some lava rock outcrop areas may be scattered throughout the site. Lime is leached to below 15 inches. ... R011XB010ID – Loamy 12-16 PZ ARTRW8/PSSPS

6) Site occurs in 8-12" PZ and elevations of 4000 to 6000 ft. Soils are deep. They occur as areas of partially stabilized eolian dunes. They occur as long and narrow old dunes. ... R011XB016ID – Sand 8-12 PZ ARTRT-PUTR2/HECOC8

7) Site occurs in 7-10" PZ and elevations of 4800 to 5500 ft. It occurs on gently sloping desert flood plains, valley bottoms, alluvial fans, terraces mesas and benches. Soils are moderately deep to deep and well drained. ... R011XB031ID – Silty 7-10 PZ KRLA2/ACHY

8) Site occurs in 6-8" inch PZ and elevations of 4200 to 5500 ft. It occurs on nearly level alluvial fans. Usually calcareous and moderately alkaline. ... R011XB017ID – Loamy 6-8 PZ ATCO/ACHY

9) Site occurs in 7-10" PZ and elevations of 5100 to 5500 ft. It occurs on alluvial fans and out-washed plains. Moderately deep to a lime accumulation zone. ... R011XB032ID – Gravelly Loam 7-10 PZ ARNO4/ACHY-HECOC8

**b. Soil depth is shallow.**

1) Site occurs in 8-12" PZ and elevations of 4000 to 5500 ft. ... R011XB013ID – Shallow Loamy 8-12 PZ ARAR8/PSSPS

2) Site occurs in 8-14" PZ and 4800 to 5600 ft. on nearly level areas between outcrops of lava flows or pressure ridges. Soils are loams that are shallow to highly fractured bedrock. ... R011XB005ID – Fractured Loamy 8-16 PZ ARTRW8/PSSPS

3) Site occurs in 8-12" PZ and elevations of 4200 to 5000 ft. These are areas where sands from dunes or old lake sediments have been blown over pre-existing landscape. Soils are shallow loamy sands and are calcareous throughout the profile. ... R011XB018ID – Shallow Sandy 8-12 PZ ARNO4/ACHY-HECOC8

**ii. Soils are stony.**

a. Site occurs in 8-12" PZ and elevations of 4000 to 5500 ft. Soils are moderately deep stony loams. Roots generally penetrate the porous basalt under-lying the site. ... R011XB003ID – Stony Loam 8-12 PZ ARTRW8/PSSPS

b. Site occurs in 8-12" PZ. The site usually occurs on or near the tops of ridges. It is often associated with basalt outcrops. Soils are shallow over fractured bedrock. ... R011XB009ID – Shallow Stony 8-12 PZ ARTRW8/PSSPS

**II. Site occurs on bottomlands (slopes less than 5%).**

**A. Water standing at or above the surface into late summer.** ... R011XB025ID – Marsh TYLA-SCAC3

**B. Water at or near the surface at beginning of growing season and down to 10-20" at the end of the growing season.** ... R011XB023ID – Wet Meadow Carex-Juncus

C. Water at or near the surface at beginning of growing season and down to 20-40" at the end of the growing season. ...

R011XB021ID – Meadow DECA18-CANE2

D. Water at or near the surface at beginning of the growing season and greater than 40" at the end of the growing season. ...

R011XB022ID – Dry Meadow POSE-PHAL2

## MLRA 11XA Central Snake River Plains Key

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### I. Site occurs on uplands.

#### A. Soils are non- stony.

##### 1 Soils are saline or alkaline.

i. Soils are moderately deep to deep with silty or clayey textures. ... R011XA006ID – Saline Upland 7-12 PZ  
SAVE4/LECI4

ii. Soils are up to 40" deep. Textures are loams or silt loams. ... R011XA013ID – Slickspot Sodic 8-14 PZ

##### 2 Soils not saline or alkaline.

i. Soils less than 20" deep. ... R011XA003ID – Shallow Loam 8-12 PZ ARTRT/PSSPS

ii. Soils more than 20" deep Soils are vertisols. ... R011XA010ID – Churning Clay 8-12 PZ  
ARTRW8/PSSPS

iii. Soils with silty clay or clay texture. B horizon is well developed. ... R011XA005ID – Claypan 8-12 PZ  
ARTRW8/PSSPS

iv. Soils with loamy textures. ... R011XA009ID – Loamy 8-12 PZ ARTRT/PSSPS

v. Soils with sandy textures. ... R011XA014ID – Sandy 8-14 PZ ARTRT/HECOC8-ACHY

#### B. Soils are stony.

1 Site occurs in 10-12" PZ at 4500-4900 ft. Soils are very stony sandy loams and loams. ... R011XA011ID – Stony  
Loam 10-12 PZ ARTRT/PSSPS

### II. Site occurs on bottomlands (slopes less than 10%).

A. Water standing at or above the surface into late summer. ... R011XA018ID – Marsh TYLA-SCAC3

B. Water table is within the root zone during the growing season. ... R011XA007ID – Semiwet Saline Meadow  
SAVE4/DISP

## MLRA 11XY Snake River Plains MLRA Wide Key

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### I. Site occurs on uplands.

#### A. Slopes greater than 30% on southerly aspects.

**1 Soils derived from granite.**

- i. Site occurs in 8-12" PZ and elevations are 2000 to 3000 ft. Soils are very coarse phases of sandy loam or gravelly sandy loam and are moderately deep. ... R011XY018ID – South Slope Granitic 8-12 PZ ARTRT/PSSPS

**2 Soils not derived from granite.**

- i. Site occurs in 10-12" PZ and elevations are 2300 to 3500 ft. Soils are moderately deep loams and gravelly loams. Gravels and stones may be present throughout the profile but do not affect kind and amount of vegetation. ... R011XY008ID – South Slope 10-12 PZ
- ii. Site occurs in 8-12" PZ and elevations of 3200 to 5400 ft. The site occurs on convex slopes on canyon sides. Soils are moderately deep to deep loams above unconsolidated or hard lacustrine sediments. ... R011XY021ID – South Slope Stony 8-12 PZ ARTRW8/PSSPS

**B. Slopes less than 30% on all aspects (non-aspects).**

**1 Soils are non-stony.**

- i. Soil depth is moderately deep to deep, greater than 20".
- a. Site occurs in 8-12" PZ and elevations of 2500 to 5000 ft. The site occurs on nearly level rolling plains, terraces, fans, ridges, and valley floors. Soils are loamy with few or no stones. ... R011XY001ID – Loamy 8-12 PZ
- b. Site occurs in 7-10" PZ and elevations of 2300 to 5000 ft. The surface texture is silty loam and may be high in volcanic glass. Site is very deep over gravels or bedrock. ... R011XY009ID – Silty 7-10 PZ KRLA2/ACHY
- c. Site occurs in 7-10" PZ and elevations of 2400 to 4800 ft. The site occurs on silty alluvial deposit areas, most often at the base of fans. Soils are deep silt loams over gravels or bedrock. They are saline. ... R011XY013ID – Saline Silty 7-10 PZ ATNU2/ACHY
- d. Site occurs in 8-12" PZ and elevations of 2000 to 3500 ft. The site is associated with stabilized sand dunes that occur in the lower Snake River plains. Soils are sand and loamy sand. ... R011XY011ID – Sand 8-12 PZ ARTRT/ACHY
- e. Site occurs in 7-10" PZ and elevations of 2300 to 5200 ft. The site associated with fan piedmonts, lava plains, plug domes, calderas, and shield volcanoes. Soils have either a cemented pan, strongly contrasting texture or high lime concentration within 8-16" which limits rooting depth. the surface texture is generally gravelly loam. ... R011XY010ID – Calcareous Loam 7-10 PZ ATCO-PIDE4/ACHY-ACTH7
- f. Site occurs in 8-12" PZ and elevations of 2500 to 4800 ft. This site is associated primarily with the Snake River lacustrine deposits but extends up into the adjacent rhyolite hills. The surface texture is sandy loam with few or no surface stones. ... R011XY014ID – Sandy Loam 8-12 PZ ARTRW8/ACHY-HECOC8

**ii. Soil depth is shallow, Less than or equal to 20"**

- a. Site occurs in 8-12" PZ and elevations of 2300 to 4500 ft. The site occurs on nearly level to gently rolling plains, terraces, alluvial fans, and low ridges. Shallow to hardpan or bedrock. Soils are silt loam to loam surface textures and maybe stony. They are formed from loess or silty alluvium. ... R011XY004ID – Shallow Loamy 8-12 PZ
- b. Site occurs in 8-12" PZ and elevations of 2600 to 4800 ft. The site occurs on old alluvial plains and terraces in the dissected Snake River plains. Soils are very stony to extremely stony loams, silt loams, and sandy clay loams over fractured basalt. A duripan often occurs in the profile. ... R011XY012ID – Shallow Stony 8-10 PZ ARAR8/ACTH7-SPCR

**2 Soils are stony or gravelly.**

- i. Site occurs in 10-12" PZ and elevations of 2000 to 3500 ft. It occurs on nearly level to moderately sloping plains, foothills, and terraces. Soils are extremely stony silt loam to clay loam. ... R011XY005ID – Stony 10-12 PZ
- ii. Site occurs in 10-12" PZ and elevations of 2300 to 4000 ft. Soils are very gravelly clay loams formed in coarse textured alluvium on dissected terraces, plains and rolling hills. ... R011XY007ID – Gravelly 10-12 PZ

**II. Site occurs on bottomlands (slopes less than 5%).**

**A. Site is poorly drained.**

1 Water standing at or above surface into late summer. ... R011XY028ID – Marsh TYLA-SCAC3

2 Water is near the surface at the beginning of the growing season and down to 10-20" at the end of the growing season. ... R011XY027ID – Wet Meadow Carex-Juncus

3 Water is near the surface at the beginning of the growing season and down to 20-40" at the end of the growing season. ... R011XY019ID – Meadow DECA18-CANE2

4 Water is near the surface at the beginning of the growing season and greater than 40" at the end of the growing season. ... R011XY020ID – Dry Meadow POSE-PHAL2

**B. Site is well drained.**

**1 Site is saline.**

- i. Site occurs in 8-12" PZ and elevation of 2300 to 3500 ft. The site is associated with the Snake River Lacustrine deposits and occurs along drainageways and low lying bottoms where salts accumulate. Soils are deep, well drained sandy loams or loams. Soils are saline or alkaline and have a water table below 6 feet. ... R011XY002ID – Saline Bottom 8-12 PZ

**2 Site is not saline.**

- i. Site occurs in 8-14" PZ and elevation of 2500 to 6500 ft. The site occurs on floodplains, drainageways, and valleys. Soils are deep, well drained loams, sandy loams, fine sandy loams, and silt loams. ... R011XY015ID – Loamy Bottom 8-14 PZ ARTRT/LECI4

**MLRA 11XY Rangeland ES Key Oregon Portion**

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**I. Site occurs on uplands.**

**A. Slopes greater than 30% on southerly aspects.**

1 Soils are moderately deep to very deep. ... R011XY020OR – South Slopes 8-11 PZ

2 Soils are shallow. ... R011XY021OR – Shallow South Slopes 8-11 PZ

**B. Slopes greater than 30% on northerly aspects.**

1 Soils are deep with silt loam to silty clay texture. ... R011XY032OR – Silty North Slopes 8-11 PZ

2 soils are deep with sandy loam to sandy clay loam textures. ... R011XY034OR – Sandy North Slopes 8-11 PZ

**C. Slopes greater than 30% on all aspects.**

1 soils are shallow and are on escarpments. ... R011XY022ID – Shallow Escarpment Complex 8-11 PZ

**D. Slopes less than 30% on all aspects (non-aspect).**

**1 Soils are saline and/or sodic. ... R011XY004OR – Saline Flat 8-11 PZ**

**2 Soils are not saline and/or sodic.**

**i. Soils are shallow.**

**a. Soils are loam to clay loam textures. ... R011XY018OR – Shallow Loam 8-11 PZ**

**ii. Soils are moderately deep to very deep.**

**a. Soils are calcareous. ... R011XY008OR – Arid Desert Loam 6-10 PZ**

**b. Soils are not calcareous.**

**1) soils are silt loam textures. ... R011XY012OR – Silty 8-11 PZ**

**2) Soils are clay loam to clay textures. ... R011XY013OR – Clayey 8-11 PZ**

**3) Soils are sandy loam textures. ... R011XY016OR – Sandy 8-11 PZ**

**4) Soils are loam to light clay textures. ... R011XY009OR – Arid Loam 6-10 PZ**

**II. Site occurs on bottomlands (slopes less than 5%).**

**A. Site is in a swale position. ... R011XY005OR – Swale 8-11 PZ**