

# Major Land Resource Area 233X Upper Kobuk and Koyukuk Hills and Valleys

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## Ecological site keys

### Life Zone Key - MLRA 233X - Upper Kobuk and Koyukuk Hills and Valleys

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**I. Elevations above 1600 feet. In this area, the subalpine and alpine life zones typically occur above 1600 feet.**

**A. The alpine life zone is where trees no longer occur and all shrubs are dwarfed or lay prostrate on the ground**

**B. The subalpine life zone has sparse stunted trees and birch and willow shrub species grow at ? 3 feet in height**

**II. Elevations below 1600 feet.**

**A. The boreal life zone is a place where stands of trees dominate and typically occurs below 1600 feet. On warm slopes, this life zone transition can occur at higher elevations. On cold slopes, this life zone transition can occur at lower elevations.**

**B. Arctic Biome - MLRA 243X - Western Brooks Range Mountains, Foothills, and Valleys At low elevations in the far western portion of this MLRA, forests no longer prevail. Arctic vegetation dominates, which are shrubby and sedge dominant communities.**

### Alpine Life Zone - MLRA 233X - Upper Kobuk and Koyukuk Hills and Valleys

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**I. Streams and drainageways ... R233XY152AK – High-elevation Scrub Gravelly Flood Plains**

**II. All other landforms**

**A. Wetland soils. These include soils that pond, have a water table at very shallow to shallow depths for long durations of time (0 to 20 inches), and/or are classified as very poorly to poorly drained.**

**1 Depressions often with ? 40 cm of saturated organic material**

**2 Not as above**

**i. Turf hummocks are common landform features. Under the surface peat layer, there is deep, frozen silts. ...**

R233XY115AK – Alpine Sedge Silty Frozen Slopes

**ii. Circles and stripes are common landform features. Under the surface peat layer, there is silty, gravelly, frozen soils. ...**

R233XY134AK – Alpine Dwarf Scrub Gravelly Frozen Slopes

**B. Not as above, non-wetland soils.**

**1 Dry and gravelly soils without permafrost. ... R233XY101AK – Alpine Dwarf Scrub Gravelly Slopes**

**2 Moist soils without permafrost. Commonly associated with swales. ... R233XY148AK – Subalpine Scrub Gravelly Moist Slopes**

## Subalpine Life Zone - MLRA 233X - Upper Kobuk and Koyukuk Hills and Valleys

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### I. Streams and drainageways ... R233XY152AK – High-elevation Scrub Gravelly Flood Plains

#### II. All other landforms

A. Wetland soils. These include soils that pond, have a water table at very shallow to shallow depths for long durations of time (0 to 20 inches), and/or are classified as very poorly to poorly drained.

1 Depressions with ? 40 cm of saturated organic material ...

B. Not as above, non-wetland soils.

1 Dry and gravelly soils. ... R233XY164AK – Subalpine Scrub Gravelly Slopes

2 Moist and gravelly soils. Commonly associated with swales. ... R233XY148AK – Subalpine Scrub Gravelly Moist Slopes

## Boreal Life Zone - MLRA 233X - Upper Kobuk and Koyukuk Hills and Valleys

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### I. The site occurs on a drainageways, flood plain, or stream terrace.

A. The site occurs on flood plains. Flooding happens at least one time in one hundred years.

1 Depressions. Often with ? 40 cm of saturated organic material ... R233XY207AK – Boreal Sedge Peat Depressions

2 not as above, level surfaces.

i. Low floodplain; frequent flooding, shrubby communities ... R233XY130AK – Boreal Scrubland Gravelly Floodplain

ii. high flood plain; occasional to rare flooding. Comparatively drier soils with more productive stands of trees ... F233XY131AK – Boreal Forest Gravelly Floodplain

B. This site occurs on stream terraces. No flooding in one hundred years. Thermokarst is common. ... F233XY171AK – Boreal Woodland Loamy Frozen Terraces

### II. This site occurs on sloping landforms like hills, plains, and mountains.

A. This site occurs on cold slopes with permafrost. Cold slopes are northwest to east facing slopes, occur in shaded slope positions, and/or occur in low-lying areas that are cold air sinks.

1 broad slopes, commonly summits and footslopes. Supports mixed shrub-sedge tussock bog

2 Not as above, supports woodlands and forests.

i. Under the surface peat layer, there is deep, frozen silts. ... F233XY111AK – Boreal Forest Loamy Frozen Slopes

ii. Under the surface peat layer, there is gravelly, frozen soils. ... F233XY160AK – Boreal Forest Gravelly Frozen Slopes

B. This site occurs on warm slopes without permafrost. Warm slopes are southeast to west facing slopes, moderate to very steep (>10% slope), and are not shaded by the surrounding landscape.

**1 Dry soils, commonly well drained. Supports more productive stands of white spruce. ... F233XY182AK – Boreal Forest Gravelly Slopes**

**2 Moist soils, commonly somewhat poorly drained. Supports less productive stands of white spruce. ... F233XY183AK – Boreal Forest Gravelly Moist Slopes**

**Arctic Biome - MLRA 243X - Western Brooks Range Mountains, Foothills, and Valleys**

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