

# Major Land Resource Area 240X

## Nulato Hills-Southern Seward Peninsula Highlands

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### Ecological site keys

#### AK630\_Nulato Hills Survey

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#### I. Maritime

##### A. Coastal Plains

1 Berms ... R240XY136AK – Meadow Coastal Plain Berm

##### 2 Talfs

i. Scrub Coastal Plain ... R240XY135AK – Open Scrub Coastal Plains

ii. Grass Tidal Plains and Depressions ... R240XY139AK – Grassland Coastal Plain Talf and Tidal Flats

##### B. All Other Landforms

##### 1 Plains

##### i. Lava Flow (or Proximal to Lava Flow)

##### a. Lava Flow

1) Lava flow ... R240XY151AK – Dwarf Ericaceous Scrub Relict Lava Flows

2) Swale on lava flow ... R240XY150AK – Tall Scrub Lava Flow Swales and Low Mountain Slopes, dry

##### b. Proximal to lava flow

1) Boulder field - well drained ... R240XY155AK – Dwarf Scrub Boulder Fields

2) Tussock tundra - poorly drained ... R240XY166AK – Grassland Tundra Plain, wet

##### ii. Other Landforms

a. Polygonal ground ... R240XY169AK – Open Scrub Polygonal Ground

##### b. Non-polygonal ground

##### 1) Concave landforms

a) Organic soil - swale, drainageway, depression ... R240XY162AK – Grassland Swales and Drainageways

##### b) Mineral soil

(1) Drainageway ... R240XY160AK – Closed Scrub Drainageway, mineral

(2) Swale ... R240XY161AK – Open Scrub Swale, mineral

##### 2) Linear and Convex landforms and microfeatures

a) **Plain talf** ... R240XY166AK – Grassland Tundra Plain, wet

b) **Peat mounds** ... R240XY162AK – Grassland Swales and Drainageways

## 2 Mountains and Hills

### i. Dunes and Sandy Ridges (F230XY113AK)

### ii. All Other Landforms

#### a. Hills and Low Elevation Mountains

##### 1) Volcanic Cones

a) **Backslopes, warm** ... R240XY153AK – Open Scrub Volcano Cone Backslopes, warm

b) **Backslopes and shoulders, moist** ... R240XY180AK – Mosaic Tall Mountain Slopes and Volcano Cone Backslopes, cool

##### 2) Slopes - broad, bedrock controlled

#### a) Upper Mountain Sites - summits, shoulders, upper backslopes & saddles

##### (1) Summits & Shoulders

(a) **Summits** ... R240XY183AK – Alpine Open Dwarf Scrub Tall Mountain Upper Slopes, cool

(b) **Shoulders** ... R240XY182AK – Alpine Open Dwarf Scrub Mountain Tops

##### (2) Upper Backslopes and Saddles

##### (a) Slopes

##### (1) Upper Backslopes

##### (a) Dry slopes

(1) **Linear** ... R240XY181AK – Subalpine Closed Low Scrub Tall Mountain Slopes

(2) **Exposed** ... R240XY186AK – Subalpine Open Low Scrub Tall Mountain Upper Backslopes

(b) **Moist slopes** ... R240XY150AK – Tall Scrub Lava Flow Swales and Low Mountain Slopes, dry

(2) **Saddles** ... R240XY168AK – Open Scrub Low Mountain Saddles and Slopes, moist

(b) **Slope microfeatures: depressions & mounds** ... R240XY162AK – Grassland Swales and Drainageways

#### b) Other Slopes

(1) **Drainageway & associated flood plain** ... R240XY160AK – Closed Scrub Drainageway, mineral

##### (2) Slopes

##### (a) Backslopes and Noseslopes

##### (1) Lower elevation - alder slopes

(a) **Dryer sites** ... R240XY150AK – Tall Scrub Lava Flow Swales and Low Mountain Slopes, dry

(b) **Moist sites** ... R240XY180AK – Mosaic Tall Mountain Slopes and Volcano Cone Backslopes, cool

(2) **Higher elevations - ericaceous scrub**

(a) **Dry sites** ... R240XY181AK – Subalpine Closed Low Scrub Tall Mountain Slopes

(b) **Moist sites** ... R240XY168AK – Open Scrub Low Mountain Saddles and Slopes, moist

(b) **Headslopes and Foothlopes**

(1) **Boulders present** ... R240XY155AK – Dwarf Scrub Boulder Fields

(2) **Boulders absent**

(a) **Forest sites**

(b) **Scrub sites**

(1) **Swales and Narrow Headslopes** ... R240XY172AK – Open Scrub Low Mountain Headslopes and Swales

(2) **Headslopes of wide valley** ... R240XY173AK – Closed Scrub Low Mountain Foothlopes and Wide Headslopes

**b. High Elevation Mountains**

**1) Summits, Shoulders and Upper Backslopes**

**a) Alpine**

(1) **Summits** ... R240XY183AK – Alpine Open Dwarf Scrub Tall Mountain Upper Slopes, cool

(2) **Other Landforms**

(a) **Shoulders**

(1) **Warm Slopes** ... R240XY185AK – Alpine Lichen-Scrub Tall Mountain Shoulders, warm

(2) **Cold slopes** ... R240XY184AK – Alpine Open Scrub Tall Mountain Tops, rocky

(b) **Upper Backslopes** ... R240XY182AK – Alpine Open Dwarf Scrub Mountain Tops

**b) Subalpine**

(1) **Permafrost absent** ... R240XY181AK – Subalpine Closed Low Scrub Tall Mountain Slopes

(2) **Permafrost present** ... R240XY168AK – Open Scrub Low Mountain Saddles and Slopes, moist

## 2) Other Mountain Positions

### a) Drainageways

- (1) Heather scrub valley terrace
- (2) Willow drainage - poorly drained

### b) Backslopes

(1) **Very steep slope** ... R240XY186AK – Subalpine Open Low Scrub Tall Mountain Upper Backslopes

(2) **Slopes less than 45%**

(a) **Linear to convex slope** ... R240XY186AK – Subalpine Open Low Scrub Tall Mountain Upper Backslopes

(b) **Linear to concave slope**

(1) **Wetter sites - swales and concave lower backslopes** ... R240XY187AK – Closed Tall Scrub Tall Mountain Backslopes, concave

(2) **Drier sites - linear to concave mid backslopes** ... R240XY180AK – Mosaic Tall Mountain Slopes and Volcano Cone Backslopes, cool

## II. Boreal

### A. Organic depressions - R230XY100AK

### B. Other Landforms

#### 1 Mountains and Hills

##### i. Saddles - R230XY131AK

##### ii. Other Mountain Positions

###### a. Summits, Shoulders and Convex Backslopes - F230XY102AK

###### b. Other Mountain Positions

###### 1) Headslopes - F230XY121AK

###### 2) Backslopes and Toeslopes

###### a) Backslopes

(1) **Steep, dry slopes** ... F240XY193AK – Maritime Open Forest Low Mountain Backslopes, warm

###### (2) **Other Backslopes**

###### (a) **Warmer, drier slopes**

(1) **Mixed woodland - F230XY105AK**

(2) **Spruce woodland - F230XY102AK**

###### (b) **Wetter slopes - F230XY102AK**

###### b) **Toeslopes and Footslopes**

(1) **Colder, wetter areas - F230XY103AK**

(2) **Warmer, drier areas - F230XY102AK**

#### 2 Flood Plains and Valleys

##### i. Thermokarst Landscape - F230XY108AK

##### ii. Non-thermokarst Landscape

###### a. **Drainages on Flood Plains and Terraces - R230XY119AK**

**b. Flood Plains and Terraces**

**1) Flood Plains**

**a) Depressions on Flood Plain - R230XY109AK**

**b) Flood Plains**

**(1) River Flood Plain**

**(a) Braided river system - F230XY110AK**

**(b) Mountain stream system - R230XY111AK**

**(2) Mountain Drainage - R230XY119AK**

**2) Terraces**

**a) Depression on Terrace - R230XY100AK**

**b) Terraces**

**(1) Earth hummocks absent - R230XY112AK**

**(2) Earth hummocks present - F230XY113AK**

**AK630\_MLRA 240 only**

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**I. Maritime**

**A. Coastal Plains**

**1 Berms ... R240XY136AK – Meadow Coastal Plain Berm**

**2 Talfs**

**i. Scrub Coastal Plain ... R240XY135AK – Open Scrub Coastal Plains**

**ii. Grass Tidal Plains and Depressions ... R240XY139AK – Grassland Coastal Plain Talf and Tidal Flats**

**B. All Other Landforms**

**1 Plains**

**i. Lava Flow (or Proximal to Lava Flow)**

**a. Lava Flow**

**1) Lava flow ... R240XY151AK – Dwarf Ericaceous Scrub Relict Lava Flows**

**2) Swale on lava flow ... R240XY150AK – Tall Scrub Lava Flow Swales and Low Mountain Slopes, dry**

**b. Proximal to lava flow**

**1) Boulder field - well drained ... R240XY155AK – Dwarf Scrub Boulder Fields**

**2) Tussock tundra - poorly drained ... R240XY166AK – Grassland Tundra Plain, wet**

**ii. Other Landforms**

**a. Polygonal ground ... R240XY169AK – Open Scrub Polygonal Ground**

**b. Non-polygonal ground**

**1) Concave landforms**

a) **Organic soil - swale, drainageway, depression** ... R240XY162AK – Grassland Swales and Drainageways

b) **Mineral soil**

(1) **Drainageway** ... R240XY160AK – Closed Scrub Drainageway, mineral

(2) **Swale** ... R240XY161AK – Open Scrub Swale, mineral

2) **Linear and Convex landforms and microfeatures**

a) **Plain talf** ... R240XY166AK – Grassland Tundra Plain, wet

b) **Peat mounds** ... R240XY162AK – Grassland Swales and Drainageways

## 2 Mountains and Hills

i. **Dunes and Sandy Ridges**

ii. **All Other Landforms**

a. **Hills and Low Elevation Mountains**

1) **Volcanic Cones**

a) **Backslopes, warm** ... R240XY153AK – Open Scrub Volcano Cone Backslopes, warm

b) **Backslopes and shoulders, moist** ... R240XY180AK – Mosaic Tall Mountain Slopes and Volcano Cone Backslopes, cool

2) **Slopes - broad, bedrock controlled**

a) **Upper Mountain Sites - summits, shoulders, upper backslopes & saddles**

(1) **Summits & Shoulders**

(a) **Summits** ... R240XY183AK – Alpine Open Dwarf Scrub Tall Mountain Upper Slopes, cool

(b) **Shoulders** ... R240XY182AK – Alpine Open Dwarf Scrub Mountain Tops

(2) **Upper Backslopes and Saddles**

(a) **Slopes**

(1) **Upper Backslopes**

(a) **Dry slopes**

(1) **Linear** ... R240XY181AK – Subalpine Closed Low Scrub Tall Mountain Slopes

(2) **Exposed** ... R240XY186AK – Subalpine Open Low Scrub Tall Mountain Upper Backslopes

(b) **Moist slopes** ... R240XY150AK – Tall Scrub Lava Flow Swales and Low Mountain Slopes, dry

(2) **Saddles** ... R240XY168AK – Open Scrub Low Mountain Saddles and Slopes, moist

(b) **Slope microfeatures: depressions & mounds** ... R240XY162AK – Grassland Swales and Drainageways

**b) Other Slopes**

(1) **Drainageway & associated flood plain** ... R240XY160AK – Closed Scrub

Drainageway, mineral

(2) **Slopes**

(a) **Backslopes and Noseslopes**

(1) **Lower elevation - alder slopes**

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(2) **Higher elevations - ericaceous scrub**

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(b) **Upper Backslopes** ... R240XY182AK – Alpine Open Dwarf Scrub Mountain Tops

**b) Subalpine**

(1) **Permafrost absent** ... R240XY181AK – Subalpine Closed Low Scrub Tall Mountain Slopes

(2) **Prefrost present** ... R240XY168AK – Open Scrub Low Mountain Saddles and Slopes, moist

**2) Other Mountain Positions**

**a) Drainageways**

(1) **Heather scrub valley terrace**

(2) **Willow drainage - poorly drained**

**b) Backslopes**

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## Practice\_Key

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2) Tussock tundra - poorly drained ... R240XY166AK – Grassland Tundra Plain, wet

**ii. Other Landforms**

a. Polygonal ground ... R240XY169AK – Open Scrub Polygonal Ground

b. Non-polygonal ground ... R240XY172AK – Open Scrub Low Mountain Headslopes and Swales

2 Mountains and Hills ... R240XY181AK – Subalpine Closed Low Scrub Tall Mountain Slopes

**II. Boreal**

**A. Organic depressions - R230XY100AK**

**B. Other Landforms**

**1 Mountains and Hills**

**i. Saddles - R230XY131AK**

**ii. Other Mountain Positions**

**a. Summits, Shoulders and Convex Backslopes - F230XY102AK**

**b. Other Mountain Positions**

1) Headslopes - F230XY121AK

2) Backslopes and Toeslopes – F230XY000AK

[Label] [Criteria]

**MLRA 240 Provisional Ecological Site Key**

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**I. Flooded Features - Coastal Plain, Flood Plain & Terraces**

**A. Coastal Plain Complex ... R240XY707AK – Arctic Scrub-Sedge Coastal Plain**

**B. Flood Plains**

**1 Boreal - F230XY601AK**

**2 Alpine & Subalpine ... R240XY702AK – Alpine Scrub Flood Plain Complex**

**II. Slopes**

**A. Hydric Features - Drainages and Swales ... R240XY710AK – Arctic Scrub Wet Drainages**

**B. Slopes - not as above**

**1 Boreal Climate supports trees - Concepts from MLRA 230X**

**i. Wetland soils**

**a. Poorly drained - F230XY611AK**

**b. Somewhat Poorly drained - F230XY613AK**

**ii. Non-wetland soils (Moderately well to well drained)**

**a. Slope mostly >20% - F230XY165AK**

**b. Slope mostly <20%**

**1) Warm Slopes, thin (<6") organic cap - F230XY612AK**

**2) Cold Slopes, thick (>6") organic cap - F230XY614AK**

**2 Arctic Climate, including non-treed Subalpine, Alpine (AGDD do not support trees)**

**i. Plains**

**a. Organic soil plain tussock tundra ... R240XY720AK – Arctic Tussock Tundra Frozen Plains**

**b. Mineral soil volcanic lava plains ... R240XY721AK – Arctic Scrub Silt Lava Plains**

**ii. Mountains**

**a. Alpine elevations above 1,200 feet ... R240XY730AK – Alpine Dwarf Scrub Gravelly Slopes**

**b. Subalpine elevations between 1,000 and 1,200 feet**

**1) Poorly drained soil ... R240XY731AK – Subalpine Ericaceous Scrub Loamy Slopes**

**2) Well drained soil ... R240XY732AK – Subalpine Tall Scrub Gravelly Slopes**