# Major Land Resource Area 230X Yukon-Kuskokwim Highlands

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## **Ecological site keys**

# Nulato Hills AK630 Survey\_full key

- I. Maritime
  - A. Coastal Plains
    - 1 Berms R240XY136AK
    - 2 Talfs
      - i. Scrub Coastal Plain R240XY135AK
      - ii. Grass Tidal Plains and Depressions R240XY139AK
  - B. All Other Landforms
    - 1 Plains
      - i. Lava Flow (or Proximal to Lava Flow)
        - a. Lava Flow
          - 1) Lava flow R240XY151AK
          - 2) Swale on lava flow R240XY150AK
        - b. Proximal to lava flow
          - 1) Boulder field well drained R240XY155AK
          - 2) Tussock tundra poorly drained R240XY166AK
      - ii. Other Landforms
        - a. Polygonal ground R240XY169AK
        - b. Non-polygonal ground
          - 1) Concave landforms
            - a) Organic soil swale, drainageway, depression R240XY162AK
            - b) Mineral soil
              - (1) Drainageway R240XY160AK
              - (2) Swale R240XY161AK
          - 2) Linear and Convex landforms and microfeatures
            - a) Plain talf R240XY166AK

- b) Peat mounds R240XY162AK
- 2 Mountains and Hills
  - i. Dunes and Sandy Ridges ... F230XY113AK Woodland Terrace, non-thermokarst
  - ii. All Other Landforms
    - a. Hills and Low Elevation Mountains
      - 1) Volcanic Cones
        - a) Backslopes, warm R240XY153AK
        - b) Backslopes and shoulders, moist R240XY180AK
      - 2) Slopes broad, bedrock controlled
        - a) Upper Mountain Sites summits, shoulders, upper backslopes & saddles
          - (1) Summits & Shoulders
            - (a) Summits R240XY183AK
            - (b) Shoulders R240XY182AK
          - (2) Upper Backslopes and Saddles
            - (a) Slopes
              - (1) Upper Backslopes
                - (a) Dry slopes
                  - (1) Linear R240XY181AK
                  - (2) Exposed R240XY186AK
                - (b) Moist slopes R240XY150AK
              - (2) Saddles R240XY168AK
            - (b) Slope microfeatures: depressions & mounds R240XY162AK
        - b) Other Slopes
          - (1) Drainageway & associated flood plain R240XY160AK
          - (2) Slopes
            - (a) Backslopes and Noseslopes
              - (1) Lower elevation alder slopes
                - (a) Dryer sites R240XY150AK
                - (b) Moist sites R240XY180AK
              - (2) Higher elevations ericaceous scrub
                - (a) Dry sites R240XY168AK
                - (b) Moist sites R240XY181AK
            - (b) Headslopes and Footslopes

- (1) Boulders present R240XY155AK
- (2) Boulders absent
  - (a) Forest sites F240XY146AK
  - (b) Scrub sites
    - (1) Swales and Narrow Headslopes R240XY172AK
    - (2) Headslopes of wide valley R240XY173AK
- b. High Elevation Mountains
  - 1) Summits, Shoulders and Upper Backslopes
    - a) Alpine
      - (1) Summits R240XY183AK
      - (2) Other Landforms
        - (a) Shoulders
          - (1) Warm Slopes R240XY185AK
          - (2) Cold Slopes R240XY184AK
        - (b) Upper Backslopes R240XY182AK
    - b) Subalpine
      - (1) Permafrost absent R240XY181AK
      - (2) Permafrost present R240XY168AK
  - 2) Other Mountain Positions
    - a) Drainageways
      - (1) Heather scrub valley terrace ... R230XY112AK Scrub Terrace, poorly drained
      - (2) Willow drainage poorly drained
    - b) Backslopes
      - (1) Very steep slope R240XY186AK
      - (2) Slopes less than 45%
        - (a) Linear to convex slope R240XY186AK
        - (b) Linear to concave slope
          - (1) Wetter sites swales and concave lower backslopes R240XY187AK
          - (2) Drier sites linear to concave mid backslopes R240XY180AK

#### II. Boreal

- A. Organic depressions ... R230XY100AK Open Scrub Organic Depressions
- B. Other Landforms

- 1 Mountains and Hills
  - i. Saddles ... R230XY131AK Subalpine Open Tall Scrub Saddles
  - ii. Other Mountain Positions
    - a. Summits, Shoulders and Convex Backslopes ... F230XY102AK Woodland Low Mountain Slopes, dry
    - b. Other Mountain Positions
      - 1) Headslopes ... F230XY121AK Woodland Tall Mountain Backslopes, wet
      - 2) Backslopes and Toeslopes
        - a) Backslopes
          - (1) Steep, dry slopes F240XY193AK
          - (2) Other Backslopes
            - (a) Warmer, drier slopes
              - (1) Mixed woodland ... F230XY105AK Open Forest Hill Slopes, steep
              - (2) Spruce woodland ... F230XY102AK Woodland Low Mountain Slopes, dry
            - (b) Wetter slopes ... F230XY102AK Woodland Low Mountain Slopes, dry
        - b) Toeslopes and Footslopes
          - (1) Colder, wetter areas ... F230XY103AK Woodland Low Mountain Slopes, wet
          - (2) Warmer, drier areas ... F230XY102AK Woodland Low Mountain Slopes, dry
- 2 Flood Plains and Valleys
  - i. Thermokarst Landscape ... F230XY108AK Woodland Terrace, thermokarst
  - ii. Non-thermokarst Landscape
    - a. Drainages on Flood Plains and Terraces ... R230XY119AK Closed Scrub Valley Flood Plain, poorly drained
    - b. Flood Plains and Terraces
      - 1) Flood Plains
        - a) Depressions on Flood Plain ... R230XY109AK Meadow Floodplain Depression
        - b) Flood Plains
          - (1) River Flood Plain
            - (a) Braided river system ... F230XY110AK Forest Floodplain, braided river system

- (b) Mountain stream system ... R230XY111AK Open Scrubland Valley Flood Plain, somewhat poorly drained
- (2) Mountain Drainage ... R230XY119AK Closed Scrub Valley Flood Plain, poorly drained
- 2) Terraces
  - a) Depression on Terrace ... R230XY100AK Open Scrub Organic Depressions
  - b) Terraces
    - (1) Earth hummocks absent ... R230XY112AK Scrub Terrace, poorly drained
    - (2) Earth hummocks present ... F230XY113AK Woodland Terrace, non-thermokarst

# AK630 Survey\_MLRA 230 only

- I. Boreal
  - A. Organic depressions ... R230XY100AK Open Scrub Organic Depressions
  - B. Other Landforms
    - 1 Mountains and Hills
      - i. Saddles ... R230XY131AK Subalpine Open Tall Scrub Saddles
      - ii. Other Mountain Positions
        - a. Summits, Shoulders and Convex Backslopes ... F230XY102AK Woodland Low Mountain Slopes, dry
        - b. Other Mountain Positions
          - 1) Headslopes ... F230XY121AK Woodland Tall Mountain Backslopes, wet
          - 2) Backslopes and Toeslopes
            - a) Backslopes
              - (1) Steep, dry slopes F240XY193AK
              - (2) Other Backslopes
                - (a) Warmer, drier slopes
                  - (1) Mixed woodland ... F230XY105AK Open Forest Hill Slopes, steep
                  - (2) Spruce woodland ... F230XY102AK Woodland Low Mountain Slopes, dry
                - (b) Wetter slopes ... F230XY102AK Woodland Low

## Mountain Slopes, dry

- b) Toeslopes and Footslopes
  - (1) Colder, wetter areas ... F230XY103AK Woodland Low Mountain Slopes, wet
  - (2) Warmer, drier areas ... F230XY102AK Woodland Low Mountain Slopes, dry
- 2 Flood Plains and Valleys
  - i. Thermokarst Landscape ... F230XY108AK Woodland Terrace, thermokarst
  - ii. Non-thermokarst Landscape
    - a. Drainages on Flood Plains and Terraces ... R230XY119AK Closed Scrub Valley Flood Plain, poorly drained
    - b. Flood Plains and Terraces
      - 1) Flood Plains
        - a) Depressions on Flood Plain ... R230XY109AK Meadow Floodplain Depression
        - b) Flood Plains
          - (1) River Flood Plain
            - (a) Braided river system ... F230XY110AK Forest Floodplain, braided river system
            - (b) Mountain stream system ... R230XY111AK Open Scrubland Valley Flood Plain, somewhat poorly drained
          - (2) Mountain Drainage ... R230XY119AK Closed Scrub Valley Flood Plain, poorly drained
      - 2) Terraces
        - a) Depression on Terrace ... R230XY100AK Open Scrub Organic Depressions
        - b) Terraces
          - (1) Earth hummocks absent ... R230XY112AK Scrub Terrace, poorly drained
          - (2) Earth hummocks present ... F230XY113AK Woodland Terrace, non-thermokarst

## **MLRA\_230**

#### I. Boreal

A. Organic depressions ... R230XY100AK - Open Scrub Organic Depressions

#### B. Other Landforms

- 1 Mountains and Hills
  - i. Saddles ... R230XY131AK Subalpine Open Tall Scrub Saddles
  - ii. Other Mountain Positions
    - a. Summits, Shoulders and Convex Backslopes ... F230XY102AK Woodland Low Mountain Slopes, dry
    - b. Other Mountain Positions
      - 1) Headslopes ... F230XY121AK Woodland Tall Mountain Backslopes, wet
      - 2) Backslopes and Toeslopes
        - a) Backslopes
          - (1) Steep, dry slopes F240XY193AK
          - (2) Other Backslopes
            - (a) Warmer, drier slopes
              - (1) Mixed woodland ... F230XY105AK Open Forest Hill Slopes, steep
              - (2) Spruce woodland ... F230XY102AK Woodland Low Mountain Slopes, dry
            - (b) Wetter slopes ... F230XY102AK Woodland Low Mountain Slopes, dry
        - b) Toeslopes and Footslopes
          - (1) Colder, wetter areas ... F230XY103AK Woodland Low Mountain Slopes, wet
          - (2) Warmer, drier areas ... F230XY102AK Woodland Low Mountain Slopes, dry
- 2 Flood Plains and Valleys
  - i. Thermokarst Landscape ... F230XY108AK Woodland Terrace, thermokarst
  - ii. Non-thermokarst Landscape
    - a. Drainages on Flood Plains and Terraces ... R230XY119AK Closed Scrub Valley Flood Plain, poorly drained
    - b. Flood Plains and Terraces
      - 1) Flood Plains
        - a) Depressions on Flood Plain ... R230XY109AK Meadow Floodplain Depression
        - b) Flood Plains
          - (1) River Flood Plain
            - (a) Braided river system ... F230XY110AK Forest

Floodplain, braided river system

- (b) Mountain stream system ... R230XY111AK Open Scrubland Valley Flood Plain, somewhat poorly drained
- (2) Mountain Drainage ... R230XY119AK Closed Scrub Valley Flood Plain, poorly drained

## 2) Terraces

- a) Depression on Terrace ... R230XY100AK Open Scrub Organic Depressions
- b) Terraces
  - (1) Earth hummocks absent ... R230XY112AK Scrub Terrace, poorly drained
  - (2) Earth hummocks present ... F230XY113AK Woodland Terrace, non-thermokarst

# **MLRA 230X Provisional Ecological Site Key**

## I. Flooding Landforms

- A. Flood Plains no permafrost, no ponding ... R230XY601AK Boreal Forest Flood Plain Complex
- B. Drainages permafrost, ponding ... R230XY610AK Boreal Scrub Silty Frozen Drainages
- II. Not as above
  - A. Organic Slope Depressions ... R230XY606AK Boreal Sedge Peat Depressions
  - B. Slopes not as above
    - 1 Alpine & Subalpine Climate
      - i. Alpine
        - a. Soils without a growing season water table, commonly well drained soils... R230XY630AK Alpine Dwarf Scrub Gravelly Slopes
        - b. Soils with a very shallow water table, commonly poorly drained soils ... R230XY634AK Alpine Sedge Gravelly Frozen Slopes
      - ii. Subalpine
        - a. Water table between 20 and 40 inches in June, commonly somewhat poorly drained soils. ... R230XY632AK Subalpine Tall Scrub Gravelly Moist Slopes
        - b. Soils without a growing season water table, commonly well drained soils... R230XY633AK Subalpine Scrub Loamy Slopes

## 2 Boreal Slopes

- i. Wetland Soils (Poorly to Very Poorly Drained)
  - a. Frequent, long ponding, very poorly drained; includes peat plateaus ... R230XY620AK Boreal Peat Frozen Flats Complex
  - b. Soils do not pond but have a very shallow water table; poorly drained. ... F230XY611AK Boreal Forest Loamy Frozen Slopes

## ii. Upland Soils

- a. Moist Soils. Water table commonly at 10-20 inches during extended portions of the growing season (somewhat poorly drained). ... F230XY613AK Boreal Forest Loamy Moist Slopes
- b. Drier Soils
  - 1) Slope mostly >20% ... F230XY615AK Boreal Deciduous Forest Loamy Steep Slopes
  - 2) Slope mostly <20%
    - a) Warm Slopes, thin (<6") organic cap ... F230XY612AK Boreal Forest Loamy Slopes
    - b) Cool Slopes, thick (>6") organic cap ... F230XY614AK Boreal Black Spruce Unfrozen Well Drained Slopes