

# Major Land Resource Area 041X

## Madrean Archipelago

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### Ecological site group keys

#### 16-20" PZ within Land Resource Unit 41.AZ1, Mexican Oak-Pine Forest and Oak Savannah

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- I. Flooded (bottom position, flooded from the valley-side or over-bank)
  - A. Soils with a perennial high water-table (3-15 ft.)
    - 1 Soils sandy and gravelly with redox features
    - 2 Soils loamy to clayey with redox features
  - B. Soils with seasonal (summer) water table (3-15 ft.)
    - 1 Soils sandy loam to clay loam
  - C. Soils without a high water table (3-15 ft.)
    - 1 Soils sandy
    - 2 Soils sandy loam to clay loam
    - 3 Soils clayey (vertic)
- II. Not Flooded (upland position, receives only precipitation)
  - A. Slopes less than 15%
    - 1 Soils calcareous throughout
      - a. Soils shallow (less than 20 inches deep)
        - 1 Soils with a lime cemented hardpan
      - b. Soils moderately deep to deep (30 to 60 inches)
        - 1 Soils with an argillic horizon
    - 2 Soils non calcareous in upper 10 inches
      - a. Soils shallow (less than 20 inches deep)
        - 1 Soils underlain by granite, schist, rhyolite bedrock
      - b. Soils moderately deep to deep (30 to 60 inches)
        - 1 Soils without an argillic horizon
          - a. Soils loamy fine sand to sandy loam
        - 2 Soils with an argillic horizon
          - a. Soils with sandy loam surface 4 in. or thicker
          - b. Soils with sandy loam surface less than 4 in.
          - c. Soils with clay loam surface (not vertic)
          - d. Soils with a clayey surface (vertic)
  - B. Slopes greater than 15%
    - 1 Soils shallow (less than 20 inches deep)
      - a. Soils calcareous throughout
        - 1 Soils over limestone parent materials
      - b. Soils non calcareous
        - 1 Soils over granite, schist, gneiss, rhyolite (acid igneous)

- 2 Soils over basalt, andesite, welded tuff (basic igneous)
- 2 Soils moderately deep and deep (30 to 60 inches)
  - a. Soils calcareous throughout
    - 1 Soils dark colored in the surface 5 inches (10YR, 4/2)
  - b. Soils non calcareous in the upper 10 inches
    - 1 Soils sandy loam to clay loam
    - 2 Soils clayey
    - 3 Add criteria

## Talbot-Nauman Key

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### I. Additional water

- A. Perennial water ... 041XESG09 – Riparian
- B. Ephemeral water
  - 1 Subsurface EC>4 ... 041XESG10 – Saline Bottoms
  - 2 Subsurface EC <4
    - i. Sand >50% & Clay <25% for surface and subsurface ... 041XESG13 – Sandy Bottoms
    - ii. Sand <50% & Clay >25% for surface and subsurface ... 041XESG01 – Bottoms

### II. Uplands

- A. >75% bedrock outcrop ... 041XESG08 – Outcrops
- B. <75% bedrock outcrop
  - 1 Surface SAR >8, or Subsurface EC >8, or Surface EC >4 ... 041XESG11 – Saline Hills
  - 2 Surface SAR <8, or Subsurface EC <8, or Surface EC <4
    - i. Gypsum >5% surface or >10% subsurface ... 041XESG06 – Gypsum
    - ii. Gypsum <5% surface and <10% subsurface
      - a. EC >1.5 surface or >2 subsurface ... 041XESG12 – Saline Uplands
      - b. EC <1.5 surface or <2 subsurface
        - 1) slope >35% & >40% surface rock ... 041XESG02 – Breaks
        - 2) slope <35% or <40% surface rock
          - a) Depth <30cm ... 041XESG16 – Very Shallow
          - b) depth: 30-55cm ... 041XESG15 – Shallow
          - c) depth >55cm
            - (1) Rock >30% surface or >30% subsurface ... 041XESG04 – Deep Rocky
            - (2) Rock <30% surface and <30% subsurface
              - (a) Clay >30% surface or >35% subsurface ... 041XESG03 – Clay Uplands
              - (b) Clay <30% surface and <35% subsurface
                - (1) sand >75% or texture is Loamy Sand or sandier in surface & subsurface ... 041XESG14 – Sandy Uplands
                - (2) sand <75% or texture is Loamy Fine Sand or finer in surface & subsurface
                  - (a) Clay <20% or texture is Sandy Loam or sandier in surface ... 041XESG07 – Loamy Uplands
                  - (b) Clay >20% or texture is Fine Sandy Loam or finer in surface ... 041XESG05 – Finer Uplands

