

Ecological site R030XY216CA ATCO-ATCA2 lake plain

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General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Ecological site concept

This ecological site is found on alluvial soils derived from mixed sources. Soils are very deep and have very sandy loam surface textures. Please refer to group concept R030XB045CA to view the provisional STM.

Table 1. Dominant plant species

Tree	Not specified
Shrub	(1) <i>Atriplex confertifolia</i> (2) <i>Atriplex canescens</i>
Herbaceous	Not specified

Physiographic features

Table 2. Representative physiographic features

Landforms	(1) Lake plain
Elevation	790 – 820 m
Slope	0 %
Water table depth	150 cm
Aspect	Aspect is not a significant factor

Climatic features

Influencing water features

Soil features

This ecological site is found on alluvial soils derived from mixed sources. Soils are very deep and have very sandy loam surface textures. The subsurface texture is loamy COARSE-SILTY IN OSD BUT SILTY NOT A CHOICE IN ESIS. Rock fragments less than 3 inches in diameter compose 0 to 5 percent of the surface cover and a negligible percent of the subsurface volume. Rock fragments greater than 3 inches in diameter are negligible in both the surface horizon and subsurface horizons. Soils are well drained, and permeability is moderately slow. Available water capacity is _____.

CHECK AWC CLASS, SAR, EC, SUBSURFACE TEXTURE

This ecological site is found on the following soil series:

Haymont (Coarse-silty, mixed, superactive, calcareous, thermic Typic Torriorthents)

Table 3. Representative soil features

Surface texture	(1) Very fine sandy loam
Family particle size	(1) Loamy
Soil depth	180 cm
Surface fragment cover <=3"	0 – 10 %
Surface fragment cover >3"	Not specified
Available water capacity (0-101.6cm)	20 cm
Calcium carbonate equivalent (0-101.6cm)	10 – 40 %
Soil reaction (1:1 water) (0-101.6cm)	8.6 – 8.8
Subsurface fragment volume <=3" (Depth not specified)	Not specified
Subsurface fragment volume >3" (Depth not specified)	Not specified

Ecological dynamics

Please refer to group concept R030XB045CA to view the provisional STM.

State and transition model

Additional community tables

Table 4. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
Shrub/Vine					
1	Shrubs			90-224	
	fourwing saltbush	ATCA2	Atriplex canescens	39-84	–
	shadscale saltbush	ATCO	Atriplex confertifolia	39-84	–
	desert princesplume	STPI	Stanleya pinnata	6-28	–
	Mojave seablite	SUMO	Suaeda moquinii	6-28	–
Grass/Grasslike					
2	Grasses			2-11	
	red brome	BRRU2	Bromus rubens	1-6	–
	Mediterranean grass	SCHIS	Schismus	1-6	–
Forb					
3	Forbs			1-6	
	mustard	BRASS2	Brassica	1-6	–
Microbiotic Crusts					
4	Biological soil crusts			1-6	
	Lichen, crustose	2LC	Lichen, crustose	1-6	–

Contributors

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Approval

Sarah Quistberg, 2/24/2025

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	08/31/2026
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. Number and extent of rills:

2. Presence of water flow patterns:

3. Number and height of erosional pedestals or terracettes:

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):

5. Number of gullies and erosion associated with gullies:

6. Extent of wind scoured, blowouts and/or depositional areas:

7. Amount of litter movement (describe size and distance expected to travel):

8. Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):

9. Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):

10. Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):

12. Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant:

Sub-dominant:

Other:

Additional:

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):

14. Average percent litter cover (%) and depth (in):

15. Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):

16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:

17. Perennial plant reproductive capability:
