

Ecological site R144AY001CT Tidal Salt Low Marsh mesic very frequently flooded

Accessed: 04/26/2024

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)	Nels Barrett, Ph.D.
Contact for lead author	
Date	07/03/2014
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Foliar Cover

Indicators

1. **Number and extent of rills:** N/A

2. **Presence of water flow patterns:** Semidiurnal tidal exchange

3. **Number and height of erosional pedestals or terracettes:** N/A

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):** Bare ground is typically less than 50% based upon spacing between individual plants, but can increase to 70% bare ground due to chronic disturbances like ice rafting/scouring and wave erosion, up to 100% bare ground due to dieback.

5. **Number of gullies and erosion associated with gullies:** N/A

6. **Extent of wind scoured, blowouts and/or depositional areas:** occasional wave / ice scouring

7. **Amount of litter movement (describe size and distance expected to travel):** Regularly flooding semidiurnal tides

removes all litter.

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Low marsh soil/substrate checked by grass rhizomes and byssal threads of ribbed mussels. Exposed soil surface susceptible to erosion in proportion to the magnitude of the flood disturbance e.g., greatest in coastal storms.
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9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):** Oe - 0-25 cm very dark gray (10YR 3/1), structureless and massive, 45% SOM
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10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:** N/A salt marsh soils are saturated, and flooded daily by tides
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11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):** N/A
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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: grasses

Sub-dominant:

Other: forbs

Additional:

13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):** Perennial grasses will naturally exhibit a minor amount (less than 5%) of senescence each year.
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14. **Average percent litter cover (%) and depth (in):** Litter is removed by regular semi-diurnal tidal flooding.
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 3500 to 12000 lbs/acre (4000 to 13500 kg/ha)
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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:** N/A

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17. **Perennial plant reproductive capability:** All plants expected to reproduce annually unless disrupted by catastrophic events prior to reproductive phase.
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