

Ecological site R144AY002CT

Tidal Salt High Marsh mesic very frequently flooded

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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):** Occasional patches (typically less than 30%) of bare ground due to chronic disturbances, e.g., wrack, ice rafting/scouring, infrequent washovers.

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

6. **Extent of wind scoured, blowouts and/or depositional areas:** Infrequent washovers due to severe coastal storms.

7. **Amount of litter movement (describe size and distance expected to travel):** 20% detrital export (Tiner 2013) - litter

size and movement varies from wrack redistribution to detritus

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8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):** Turf-building salt high marsh grasses usually check erosion.
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
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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: Warm-season grasses
- Sub-dominant:
- Other: rushes >> forbs > shrubs
- Additional:
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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):** variable - litter accumulation varies with productivity, and degree of tidal export
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15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** 1000 to 10,000 lbs/acre (1120 to 11,208 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: PHAU7 *Phragmites australis* var. *australis* common reed

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