Methuen Street: Dune Walkway Profile

Site Assessments: March 5, 2024, July 9, 2024, and May 23, 2025

Structure Conditions and Observations	
Road to Beach	542 ft
Boardwalk Length	453 ft
End of boardwalk to beach	89 ft
Walkway Width	4.0 ft
Boardwalk Material	• Asphalt apron • Pressure treated wood connected by galvanized cable
Attached pathways	2
Benches	2
Additional Features	Railings on south landward side of dune incline
**Human-made pathways connected to the municipal walkway*	

Ecological Conditions and Observations			
Community Types Present	**Rare Species**	**Other Native Species of interest**	**Species of Concern**
• Beachgrass grassland • Hudsonia maritime shrubland	• Wooly beach heather (*Hudsonia tomentosa*)[S2] • Gray's sedge (*Cyperus grayi*)[S1] • Tall wormwood (*Artermesia campestrus*)[S1]	• Beachgrass (*Ammophila breviligulata*) • Seaside goldenrod (*Solidago sempervirens*) • Beach pea (*Lathyrus japonicus*) • Beach plum (*Prunus maritima*) • Seabeach pinweed (*Lechea maritima*) • Bayberry (*Myrica pennsylvanica*)	• Asiatic bittersweet (*Celastrus orbiculatus*)[P]
S1 = endangered in NH, S2 = threatened in NH, P = prohibited species in NH, W = NH invasive watch list			

Walkway Entrance

Landward Side

Seaward Side

Walkway Observations

Landward Side of Dune

- The pine tree near the entrance appears to be a Japanese black pine (*Pinus thunbergii*).
- The walkway is relatively straight and flat, with a moderate incline over the dune crest.
- The vegetation along the walkway is close to the boardwalk suggesting pedestrians are staying on the walkway (Figure 1).
- The vegetated adjacent to the walkway appears to be mowed (Figure 1).
- Areas of dense and intact Hudsonia maritime shrubland and beachgrass grassland are fragmented by a wooden walking path through the dunes directly to homes contributing to areas of bare sand and sparse vegetation (Figure 2).
- A pile of grass clippings and rocks was observed in the dune.

Figure 1. Landward side leading to dune crest

Figure 2. Areas of intact Hudsonia between walkway and private path

Dune Crest

- Toward the dune crest, it appears some planks are coming loose (Figure 2).

Seaward Side of Dune

- A well-established beachgrass grassland exists at the seaward end to the south of the walkway.
- Large unvegetated areas were present to the north of the walkway.
- Two benches are located further into the dune requiring people to walk through the dunes to access them. Beach accessories may be stored here as evidence by the Adirondack chairs and beach chairs.
- An area of suspected dune die-off exists to the north of the walkway behind the bench area (Figure 3).

Figure 3. Dune die-off near benches

- A section of wooden planks at the end of the walkway is detached and made of a different material than the rest of the boardwalk (Figure 4).
- The lower portion of the walkway is buried in sand near the beach access point.
- Seaward end of walkway is narrow and the surrounding area is well vegetated.

Figure 4. Added wooden planks

Figure 5. Seaward end of walkway

- Inspect and replace any missing or damaged planks to improve safety and stability.
- Remove excess sand from the lower portion of the walkway to restore accessibility and reduce the risk of structural strain.
- Increase native plant diversity by removing the pine tree, bittersweet, and the lawn grasses near the landward entrance and revegetate with native dune species.
- Assess replacing the mismatched section with materials consistent with the rest of the walkway to improve durability and to restore a continuous, stable walking surface.
- Install a Mobi Mat or similar ADA-compliant beach access mat at the end of the walkway to improve accessibility.
- Conduct regular maintenance to prevent future sand buildup, especially after storms.
- Move benches closer to the primary walkway. Remove beach chairs and Adirondack chairs and revegetate the area with native dune species. Benches placed at an angle (~45°) generally appear to have less impact on the surrounding dune than benches placed perpendicular to the walkway. Consider positioning benches at a 45° angle to the walkway when practicable
- Remove invasive species and revegetate with native dune species
- In areas of suspected dune die-off, consider planting a diversity of sand dune species and/or treating the area with a lime and fertilizer (see die-off area planting suggestions).

Resources

- GoBotany – Native Plant Trust: https://gobotany.nativeplanttrust.org
- MA Office of Coastal Zone Management Tips: Basics of Building Beach Access Structures that Protect Dunes and Banks
- NH Comprehensive Invasive Plant list: https://www.agriculture.nh.gov/publications-forms/documents/nh-invasive-plant-list.pdf
- NH Guide to Upland Invasive Species: https://www.agriculture.nh.gov/publications-forms/documents/upland-invasive-species.pdf
- NH Sea Grant - Dune Die-Off Factsheet (See Appendix IV)
- Planting guide for tidal shoreline erosion management in NH: https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/tidal-erosion-planting-guide.pdf
- UNH Extension resources on invasive species: https://extension.unh.edu/natural-resources/forests-trees/invasive-species