

Groveland Street: Dune Walkway Profile

Site Assessments: March 5, 2024 and July 29, 2024

Structure Conditions and Observations	
Road to Beach	266 ft
Boardwalk Length	185 ft
End of boardwalk to beach	81 ft
Walkway Width	4 ft
Boardwalk Material	<ul style="list-style-type: none"> Asphalt apron Pressure treated wood connected by galvanized cable
Attached pathways	0
Benches	2
Additional Features	Seasonal Mobi Mat installed to extend wooden walkway over sand to beach
*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
<ul style="list-style-type: none"> Beachgrass grassland Hudsonia maritime shrubland 	<ul style="list-style-type: none"> Woolly beach heather (<i>Hudsonia tomentosa</i>)^{S2} Tall wormwood (<i>Artemisia campestris</i>)^{S1} 	<ul style="list-style-type: none"> Beachgrass (<i>Ammophila breviligulata</i>) Seaside goldenrod (<i>Solidago sempervirens</i>) Beach pea (<i>Lathyrus japonicus</i>) Seabeach pinweed (<i>Lechea maritima</i>) Poison ivy (<i>Toxicodendron radicans</i>) 	<ul style="list-style-type: none"> Asiatic bittersweet (<i>Celastrus orbiculatus</i>)^P Beach rose (<i>Rosa rugosa</i>)^W
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 vegetation along the walkway appears to be cut (Figure 1).
- A bench on the south side near the entrance is oriented parallel to the walkway
- Noticed individual walkways from homes through the dunes, running parallel to the municipal walkway.
- Several sections of the walkway have bowed or loose planks.
- Poison ivy was observed along the north side of the dune walkway (Figure 2).
- The walkway becomes noticeably steep as it approaches the crest of the dune.



Figure 1. Cut vegetation along walkway edge

Seaward Side of Dune

- The beachgrass grassland on the seaward end of the walkway is well-established (Figure 3).
- One bench located on the northside of walkway oriented at a 45-degree angle and set back into the dune.
- The lower portion of the boardwalk near the beach is partially buried by sand.
- Unvegetated areas were observed along the seaward side of the walkway near the homes. Adjacent to the walkway areas of disturbed habitat were observed (Figure 4). Sparse patches of wooly beach heather (a rare species) were also observed in this area.
- A bench is located at an approximately 45-degree angle to the walkway, facing the ocean (Figure 5). The impacts to dune vegetation are confined to the small area in front of the bench. This bench serves as an example of how to position a bench to maximize the view for bench users while limiting impacts to the dune.



Figure 2. Poison Ivy along northside of walkway



Figure 3. Well-established beachgrass



Figure 4. Unvegetated areas on seaward side



Figure 5. Ocean side bench

Potential Action Items

- Conduct regular maintenance to prevent future sand buildup, especially after storms.
- Inspect and replace any missing or damaged planks to improve safety and stability.
- Remove the invasive species near the landward end of the walkway and revegetate the area with native dune species.
- Consider replacing the vegetation along the landward side of the walkway, where habitat quality is low, with native dune species.
- Add non-slip surfacing to the inclined portion of the boardwalk to improve traction and reduce the risk of slipping.
- Remove excess sand from the lower portion of the boardwalk to restore accessibility and reduce the risk of structural strain.
- Limit pathways and walking through the dunes
- Plant unvegetated areas with native dune species.
- Provide educational materials or programming to increase awareness about protected dune plant species and the best practices for controlling vegetation growth around walkways.

Resources

- GoBotany – Native Plant Trust: <https://gobotany.nativeplanttrust.org>
- 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>
- Planting Guide for Tidal Shoreline Erosion Management in New Hampshire (beach and dune sections): <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>