Lowell Street: Dune Walkway Profile

Sie Assessments: March 5, 2024 and July 25, 2024

Structure Conditions and Observations:		
Road to Beach	500 ft	
noda te Boden		
Boardwalk Length	430 ft	
End of boardwalk to the		
beach	70 ft	
Walkway Width	4.0 ft	
	Asphalt apron	
	Pressure treated wood	
Walkway Material	connected by cable	
Connected pathways**	2	
Benches	3	
	viewing platform at crest of	
Additional Features	dune with benches	
*Human-made pathways con	nected to the municipal walkway	



Community Types Present	Rare Species	Other Native Species of interest	Species of Concern
 Beachgrass grassland Hudsonia maritime shrubland 	• Wooly beach heather (Hudsonia tomentosa) ^{\$2}	 Beachgrass (Ammophila breviligulata) Northern Bayberry (Myrica pennsylvanica) 	 Asiatic bittersweet (Celastrus orbiculatus)^P Beach rose (Rosa rugosa)^W Shrub honeysuckle (Lonicera species)^P Black locust (Robinia pseudoacacia)^W Privet (Ligustrum vulgare)^P Beach rose (Rosa rugosa)^W Scotch pine (Pinus sylvestris)^W Yucca species (likely Yucca filamentosa) Hoary alyssum (Berteroa incana) Scotch pine (Pinus sylvestris^W)







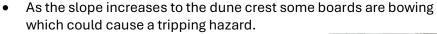
Seaward Side

Walkway Entrance Landward Side

Observations

Landward Side of Dune

- The initial portion of the walkway appears flat and stable.
- High density and diversity of invasive plant species found at the entrance to the walkway.
- Hudsonia maritime shrubland is dense and intact, particularly to the north of the walkway.
- Both Scotch pine (*Pinus sylvestris*, NH invasive species watch list) and Austrian/black pine (Pinus nigra; nonnative) are suspected on site (Figure 1).
- There is one bench along the north side of the walkway, positioned parallel to it.



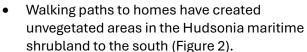




Figure 2: Unvegetated areas of Hudsonia maritime shrubland

Dune Crest

- There is one bench along the south side of the walkway that is positioned perpendicular to
- There is some evidence of the boardwalk shifting slightly at the dune crest (Figure 3).

Seaward Side of Dune

- There is a bench positioned further into the dune and away from the walkway.
- The lower portion of the walkway is buried in sand near the beach access point.
- The seaward end of walkway is narrow and there is evidence of new beachgrass growth.
- Earthstar mushrooms found at this site (likely Astraeus hygrometricus).



Figure 3: Some shifting of the boardwalk observed at the crest of the dune.

Potential Action Items

- Inspect and replace any damaged or loose planks to improve safety and durability.
- Install a Mobi Mat or similar ADA-compliant beach access mat at the end of the walkway to improve accessibility.
- Given the high condition of the dune and density of invasive species, remove invasive species and revegetate the areas adjacent to the walkway near the road with native dune species.



species observed at the entrance to the walkway

- Consider routing walking paths from homes perpendicular to the walkway along the edge of the dune close to the houses to limit dune impacts.
- Seek positive confirmation of pine tree species and remove if confirmed to be non-native.
- Remove excess sand from the lower portion of the walkway to restore accessibility and reduce the risk of structural strain.

Notes

The mushroom observed at this site is likely in the genus Astraeus – the false earthstars (Figure 3). They are often called the "Barometer Earthster" as the rays of the star open and close based on the humidity.



Figure 3: Earthstar mushroom found at this site

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