

Mitigating Risk Through Forest Management

Designating a Portion of Tavern Road as an Emergency Lane.

Conservation Commission is seeking access via Tavern Road to manage Oak Ridge Forest

- Forest management for the protection of water resources, wildlife, improved recreational access and safety, mitigation of fire risk.
- Repair to approximately 1000 feet of the Class VI portion of Tavern Road. The Portion From the Oak Ridge Town Forest Sign to Sign Post 2 for the Bobcat Trail
- Town road maintenance allowed under Emergency Lane Designation
- Wetlands – NHDES Permit by Notification



Climate Change and NH Wildfire Risks

- **Primary cause of wildfire – presence of humans.**
- **Secondary causes - drought, heat waves, increase in forest fuels**

Warming already causes earlier snowmelt and lower spring stream flow. Trend will continue for the rest of the century.

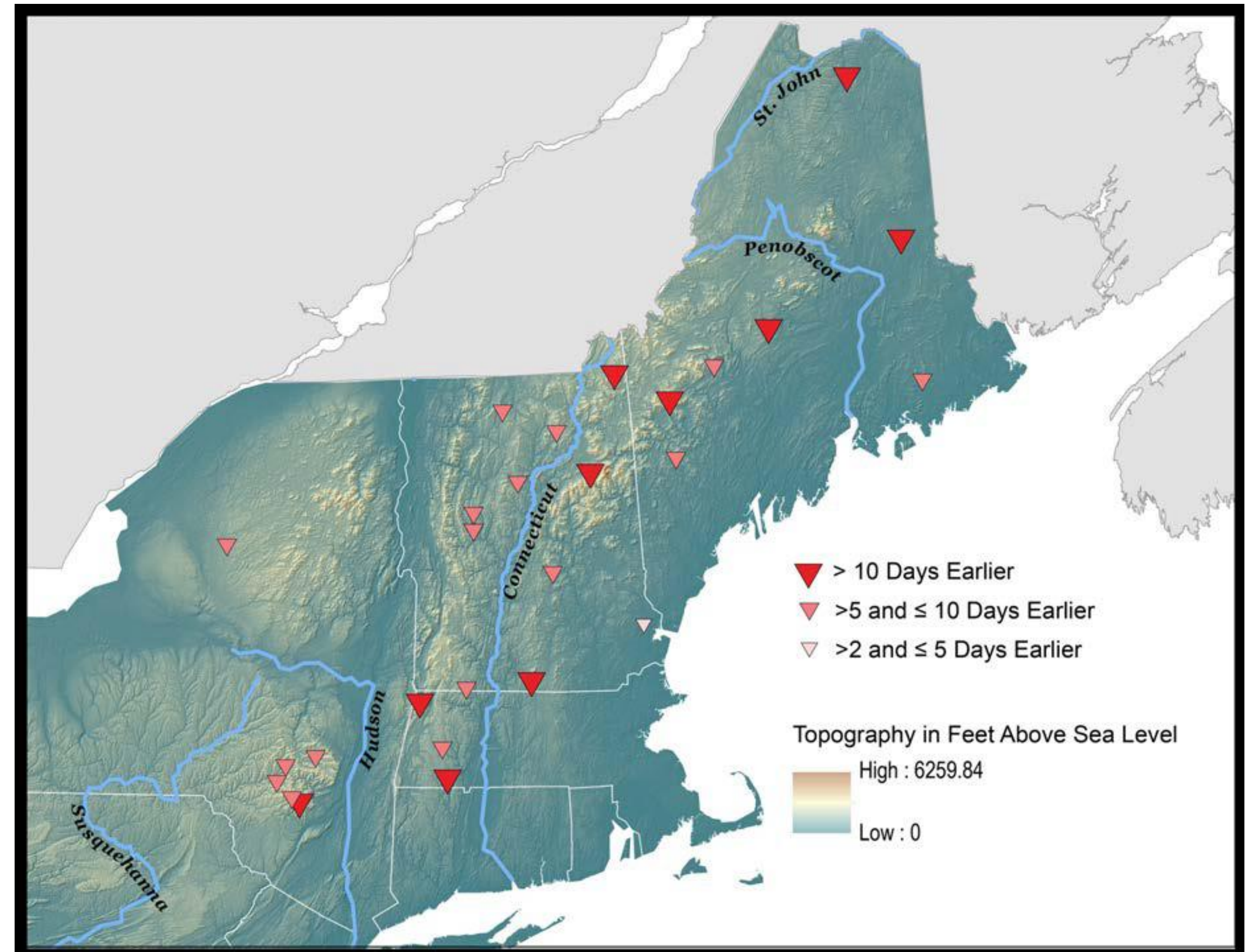
Increased Trail Use = Increased Personal Safety Risk

Increased Forest Fuel = Increased Fire Risk

Fire History

- From 1960-2015, NH fires over 100 acres rare
- 2015: 275-acre fire
- 2016: 329-acres and several other large fires
- 2017: busy fire season including a 75-acre fire
- 2022: Bemis Fire Crawford Notch 102-acres

Slide courtesy of Dr. Lisa Doner, Associate Professor of Environmental Science,
Plymouth State University and Chair, Plymouth Conservation Commission
<https://www.nh.gov/nhdf/land-conservation/wildland-fire-prevention/index.htm>



Climate Change and Increased Forest Fuels



- Invasive species.

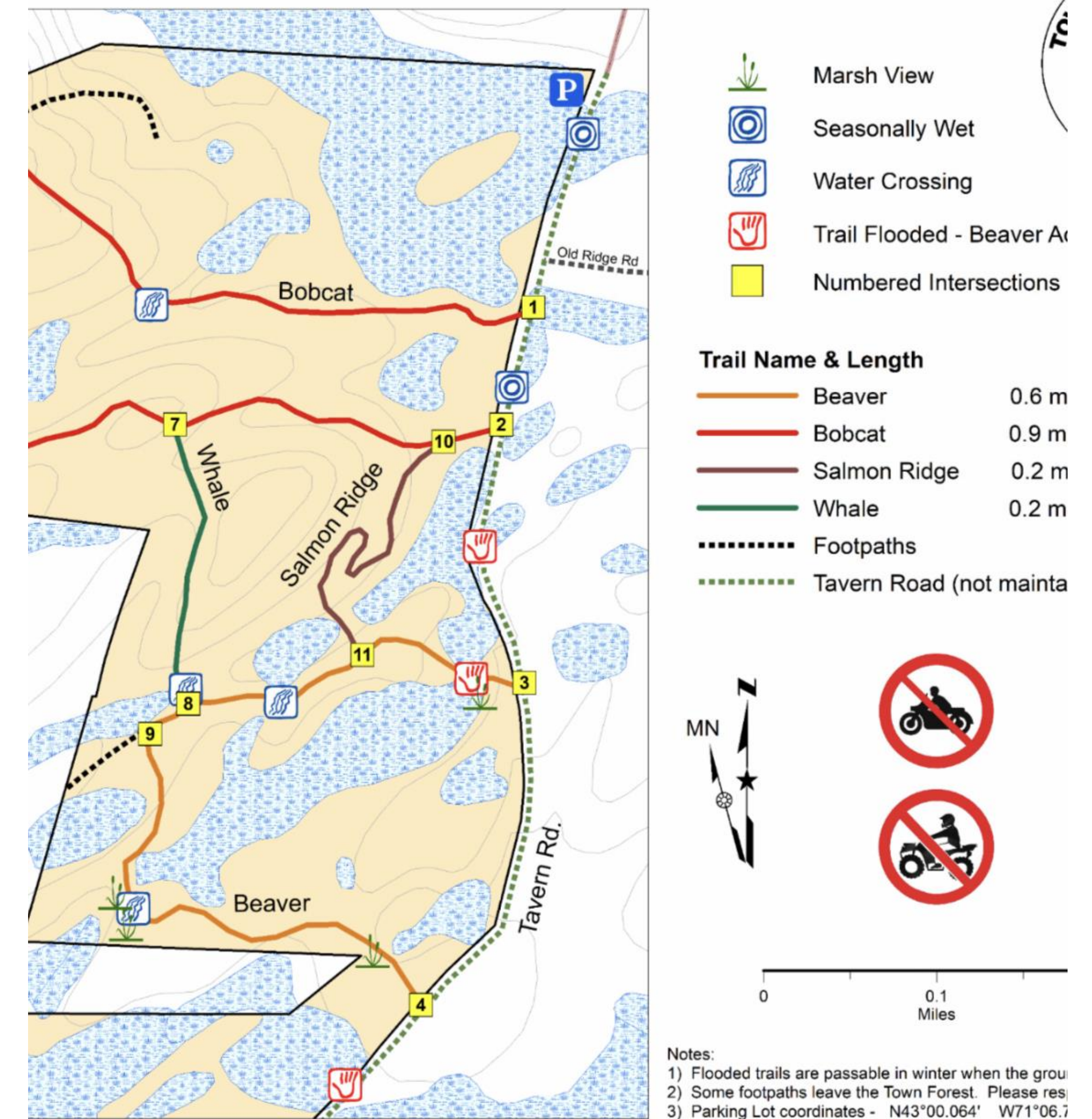


- Northward expansion of tree pests, increased overwinter pest survival (hemlock woolly adelgid, emerald ash borer, southern pine beetle).

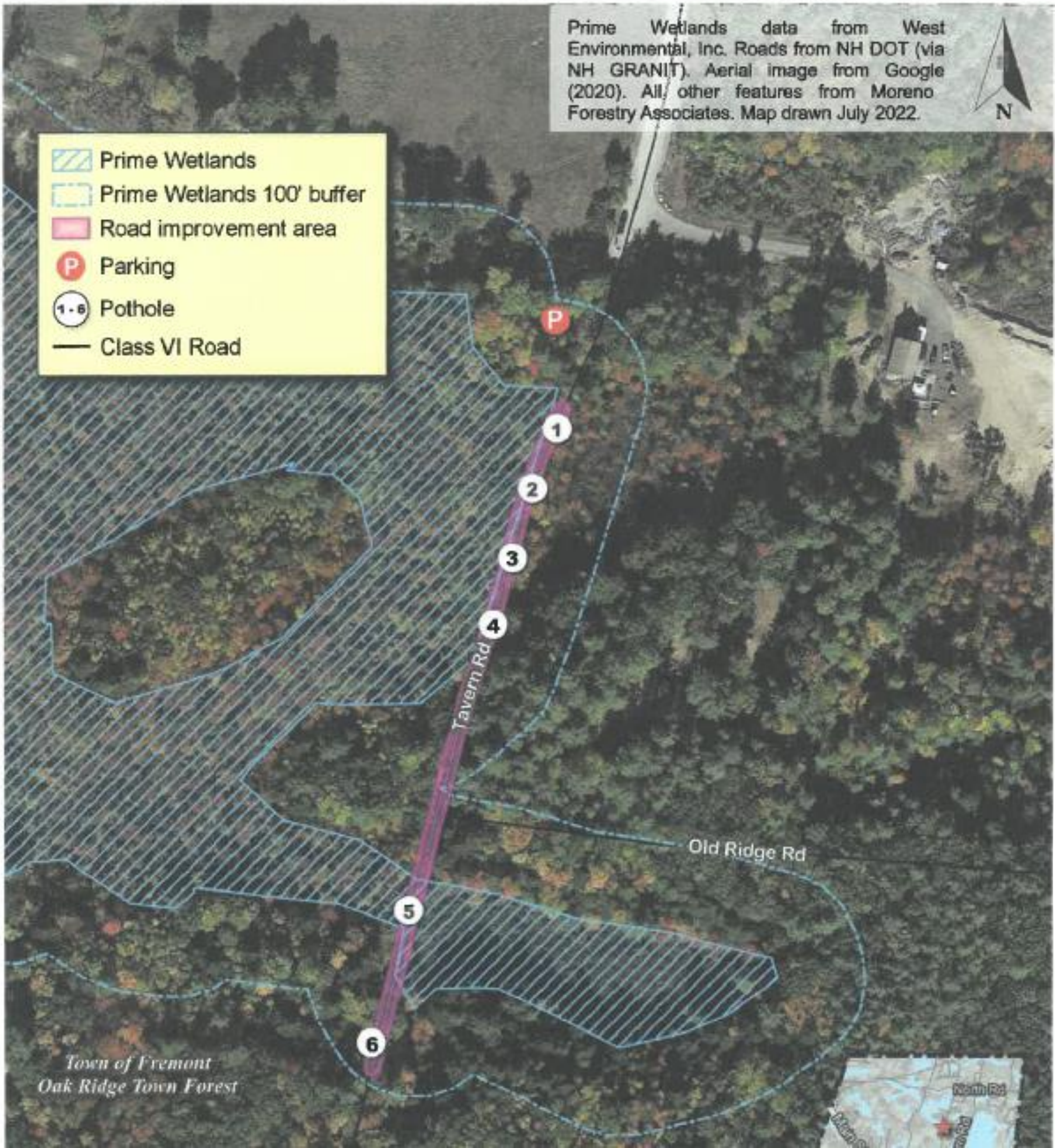
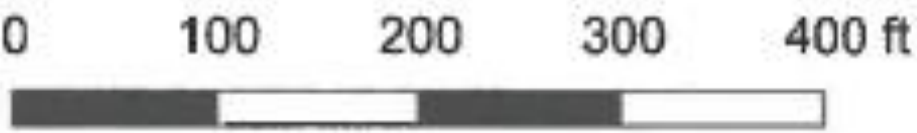
The Trail Map Shows Areas Where The Wetlands and Road Are One

Note the “seasonally wet” and “trail flooded” symbols.

Salmon Ridge Town Forest, Fremont, NH - North Trails



Town of Fremont, New Hampshire
Tavern Road (Class VI) Improvement Project



Distance ~1000 feet
Repair Cost ~\$3000

Summary Materials List

Where a range was provided, maximum quantities were used to calculate totals.

Material	Quantity	Unit Cost	Subtotal
Geotextile	340'	\$400 / roll (432')	\$400
Riprap	69 yds (4 loads)	\$300 / load	\$1200
3" minus	58 yds (3.5 loads)	\$300 / load	\$1050
Total:			\$2650±

Detailed Materials List

Pothole #	Geotextile (ft)	Riprap (yds)	3" minus (yds)
1	75	16	9
2	90	18	9
3	95	18	10
4	0	0	14
5	80	17	8
6	0	0	8
Total:	340	69	58
Loads:		4	3.5

Extensive and Numerous Wetlands Cross Tavern Road Beyond The Landing

- There are an additional six areas where wetlands cross the Road.
- A wetland road crossings just beyond the Landing measured 78 long feet followed immediately by another 55 feet long and another 185 feet long. All varying from 10 to 16 inches deep
- The point being the road immediately beyond Sign Post 2 (Bobcat Trail) is more wetland than road for several hundred feet.



Why just this portion? It's even wetter.

- Path of lowest impact to access landing for tree removal.
- There are an additional six areas where wetlands cross the Road.
- A wetland road crossings just beyond the Landing measured 78 long feet followed immediately by another 55 feet long and another 185 feet long. All varying from 10 to 16 inches deep.
- There is limited Emergency Risk beyond Sign Post 2 (Bobcat Trail) where there is more wetland than road for several hundred feet.

Designation as Emergency Lane vs Trail

- The Conservation Commission believes the public interest would be served by
 1. Using Stone Fords to give a firm base to the Road in the first five wetland crossings would provide better access for firefighting equipment and rescue or other emergency vehicles.
 2. Using Stone Fords would provide forestry equipment better access for Forest Management reducing the risk of forest fire.
- Note: the use of 5- to 6-inch stone as a road base is a time-honored treatment that allows the free movement of water across a road bisecting a wetland.

First 3 Wet Land Crossings

Note: both sides of the road are
wetlands with water draining
from left to right.





Wetland 1 Crossing

Is up to 8 inches deep and 38 feet long

June 7, 2023



Wetland 2 Crossing

Is up to 10 inches deep and 52 feet long

June 7, 2023



Wetland 3 Crossing

Is up to 4 inches deep and 41 feet long

June 7, 2023

Low Wet Areas In The Road

They are at the ground water
level of the wetlands on either
side (June 7, 2023)





Michael Gould Lot

As viewed from Tavern Road

Junction of Tavern Road and Old Ridge Road

Note: Old Ridge Road is
designated a closed road





Wetland 4 Crossing

Is up to 7 inches deep and 42 feet long. It is located just before Trail Sign Post 1 (Bobcat)
June 7. 2023



Wetland 5 Crossing

Is up to 5 Inches deep and 28 feet long

June 7, 2023

View From Wetland 5

Note: The road climbs at this
point



Site of the log landing and junction of Travern Road and Post 2 (Bobcat)



Town and State Processes

- The Conservation Commission has engaged Wetland Scientist Mark West to work with the NH Wetlands Bureau for a Wetlands Crossing Permit.
- The Conservation Commission is working with Forester Charlie Marino to develop a forestry management proposal.
- The Conservation Commission has had a conversation with Phillips Exeter Academy's Land Management Agent regarding our Forest management intent.
- We are now ready to ask the Board of Select People's approval to seek designation of the portion of Tavern Road from the Oak Ridge Town Forest sign to Sign Post 2 for the Bobcat Trail as an Emergency Lane in order to keep Tavern Road a Class VI road and provide a better road base through 5 wetlands for emergency use and fire suppression using Forest Management.

The Tax Map Shows The Abutters

Lot 7 - Michael Gould Sr

Lot 67 - Phillips Exeter Academy

Lot 65 - June McNally

Lots 8,9,10,16, 11 and 12 - Town
of Fremont with a conservation
easement held by The Society For
The Protection of NH Forests.

