

Viabile Kite-Surfing Locations

Massachusetts Coastline

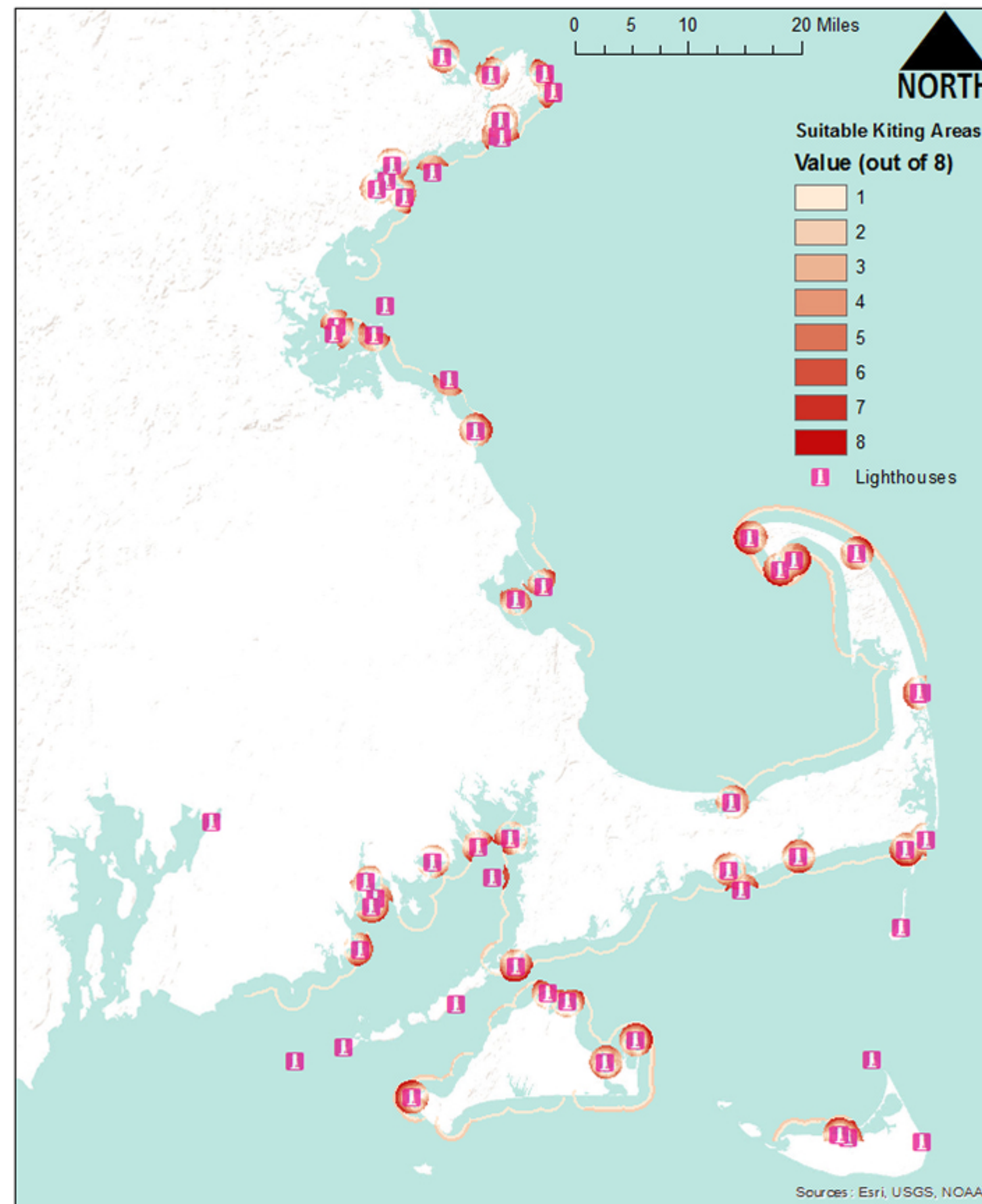
BACKGROUND

The sport of kitesurfing has taken off in the last decade with about 1.5 million participants and a global market of nearly \$250 million. Kite-surfers use a wing shaped kite attached to a control bar to skim across the surface of the water on a specially designed board. Like windsurfing, consistent wind is necessary, however the range of ridable wind speeds is larger for kitesurfing than for windsurfing. Wind speeds of 5-30 knots, preferably directed onshore, are ideal and will allow a rider to literally fly into the air while turning.

Many factors contribute to a great kitesurfing spot, but the primary factor is wind speed. The state of Massachusetts provides wind data for the entire coastline which is a valuable resource. After wind speed, the second most important thing is a public beach (or ideally, a private beach that one has permission to launch from). The kites require 15-20 meters of space to prepare, so a beach that one can legally access is key. After that comes convenience. Free parking is desirable, but paid parking is a close second. Since the kites are inflatable and the boards are relatively small, a kitesurfer can park a considerable (i.e. 1/2 - 1 1/2 miles) distance away and walk with their gear in hand.

A final factor that was considered was the location of lighthouses. Lighthouses have always interested me, and a good kitesurfing spot where there is a lighthouse would always be better than another good spot where there is not.

Kitesurfing along Massachusetts



METHODOLOGY

To determine the best kitesurfing locations along the Massachusetts coast, I performed suitability analysis based on several raster datalayers. These included wind speed (higher is better), distance from beach (lower is better), distance from parking (lower is better), distance from lighthouses (lower is better), and type of beach (public is a must).

All of these layers were trimmed so that they only showed data along the coastline, as well as up to a mile out to sea because an experienced kitesurfer can easily cover that distance. A color range was used that clearly denotes the best spots in darker shades of red. The layers are projected onto a map of the Massachusetts coastline and clearly show the best areas.

The tools I used most were Clip, Euclidean Distance, the Conversion Suite (mostly raster to polygon, and polygon to raster), Reclassify, and the Raster Calculator.

CONCLUSION

The results are fascinating, but somewhat predictable. Areas with an unobstructed ocean view scored highest, many of these located on the Eastern arm of Cape Cod, as well as the South coast of Marthas Vineyard and the South coast of Cape Cod. Being from Boston, the areas closest to there interest me most. A hotspot is located at Pleasure Bay, a manmade bay that is a known kitesurfing haven with great wind and an easy launch point from the wide beach. Some areas are particularly the points around the tip of the Cape, including its most Northeasternly point. I plan to travel to many of these hotspots to see if the data truly represents reality.

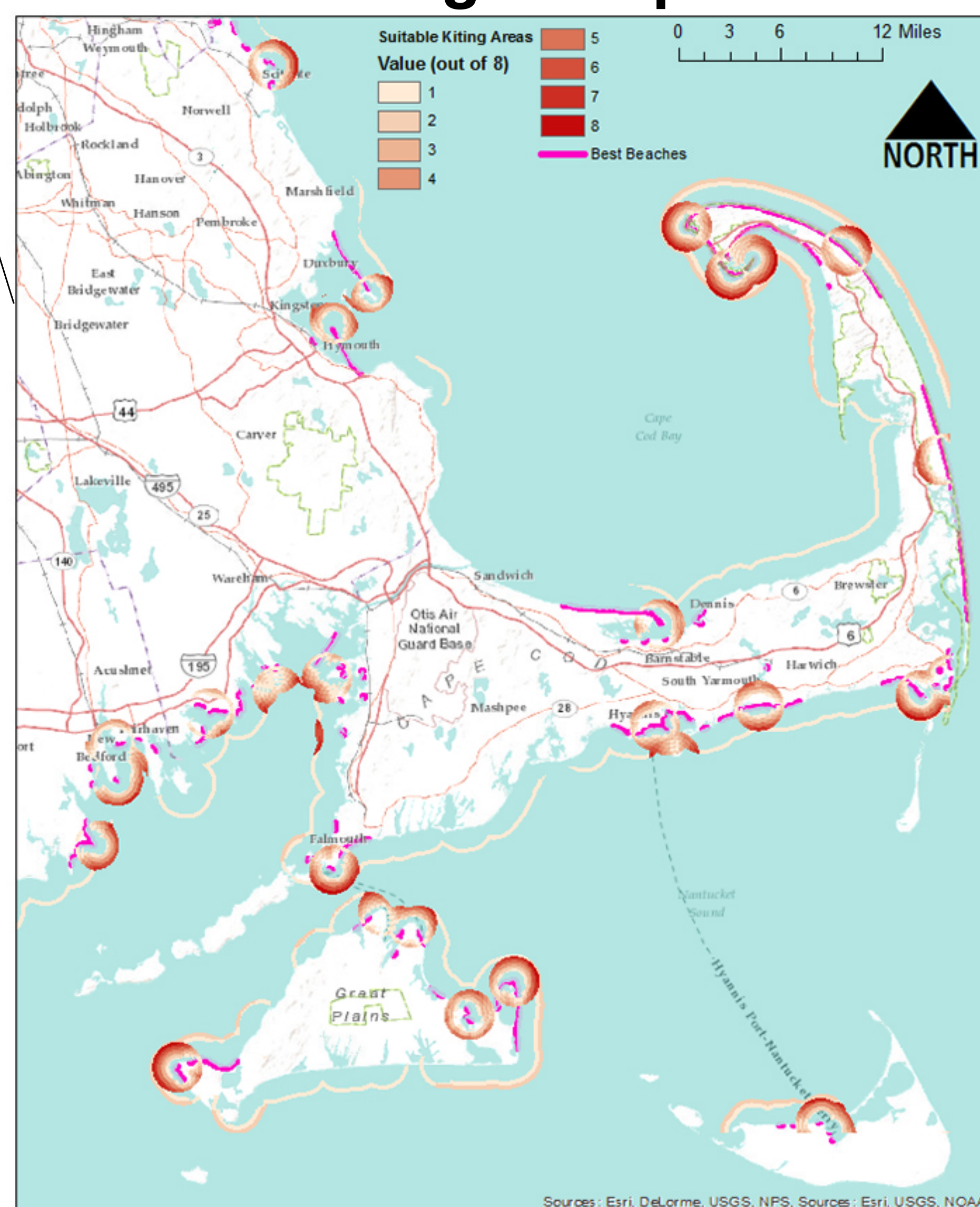


Scale : 1:500,000
 Data Sources;
 MassGIS (using Truwind)
 Projection: Mass. Stateplane NAD83 (meters)

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Kitesurfing in Cape Cod



Kitesurfing in Boston

