

# Coastal Vulnerability Index

## Bay Head Borough, Ocean County

The Coastal Vulnerability Index (CVI) was developed to help assess the vulnerability and resiliency of New Jersey coastal communities to natural hazards. While storm surge inundation and sea level rise are the primary factors influencing coastal flooding threats, those factors alone may not fully define the risk of coastal communities to both chronic and episodic hazards. As a layer combining data on flood zones, geomorphology, slope, soil erosion, soil drainage, soil flooding frequency, and ground elevation, as well as on storm surge inundation and water elevation changes, the CVI may provide a more complete picture of the flood hazard potential of coastal communities. In this map, the index is used to define three levels of relative vulnerability; Lower, Moderate, and Higher. More risk levels could be used, or break points between levels adjusted, as additional site specific data are examined. This process of fine tuning the CVI will be done by working with individual municipalities through a grant program aimed at improving the resiliency plans of New Jersey's coastal communities.

### Legend

CVI 2050	Facilities	Transportation
Lower	Fire Stations	Interstates
Moderate	Law Enforcement	US Highways
Higher	Medical Facilities	NJ Highways
Major Water	Rail Station	Toll Routes
<b>Water Features</b>	Schools	500 Routes
Streams		County Routes
Waterbodies		Passenger Rail
<b>Municipalities</b>		

The CVI spatial data set is for informational purposes only. It is a preliminary screening layer for use in conjunction with other community specific data in the development of effective coastal management plans. It is not a final layer defining the actual vulnerability of any community to flooding or storm events, either for present day conditions, or those predicted under sea level rise scenarios. It was generated using the best available information, but has not had rigorous review of its use for modeling site specific coastal conditions. Those reviews may require additional contributing and final generated data sets to be edited to more accurately represent actual conditions. The review and refinement of the data set should be done in conjunction with a wide range of partners, including local municipal experts. Additional data sets not used to prepare the CVI will also be needed to refine the outputs and tailor the data to the specific characteristics of individual communities.



1 inch equals 0.25 miles

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