

# New Jersey Inland Bays

## SUMMARY

New Jersey Inland Bays are characterized by low chlorophyll-a and no problems with dissolved oxygen symptoms. But brown tides have been a problem particularly in the northern part of the system. Additional problems are a result of macroalgae completely covering extensive areas of the bay bottom during blooms which causes significant dieoff of SAVs.

## Influencing Factors

Moderate to high nitrogen input and moderate to high susceptibility (low ability for dilution and flushing of nutrients).



## Eutrophic Conditions \*\*\*

High primary and secondary symptom levels indicate serious eutrophication problems.



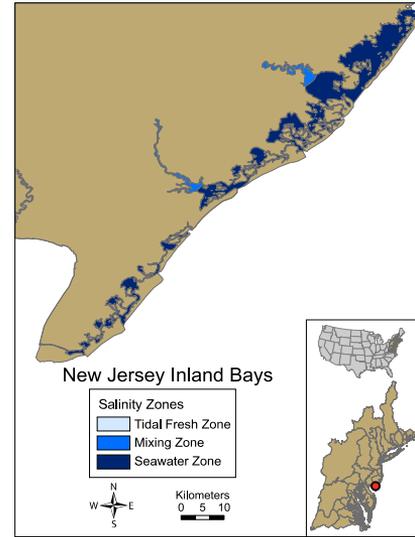
## Future Outlook

Nutrient related symptoms observed in the estuary are likely to substantially worsen.

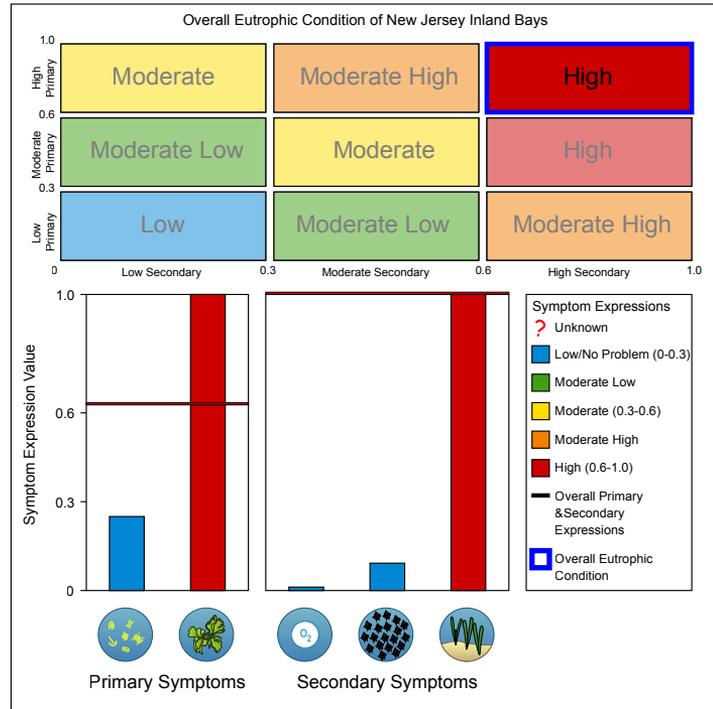
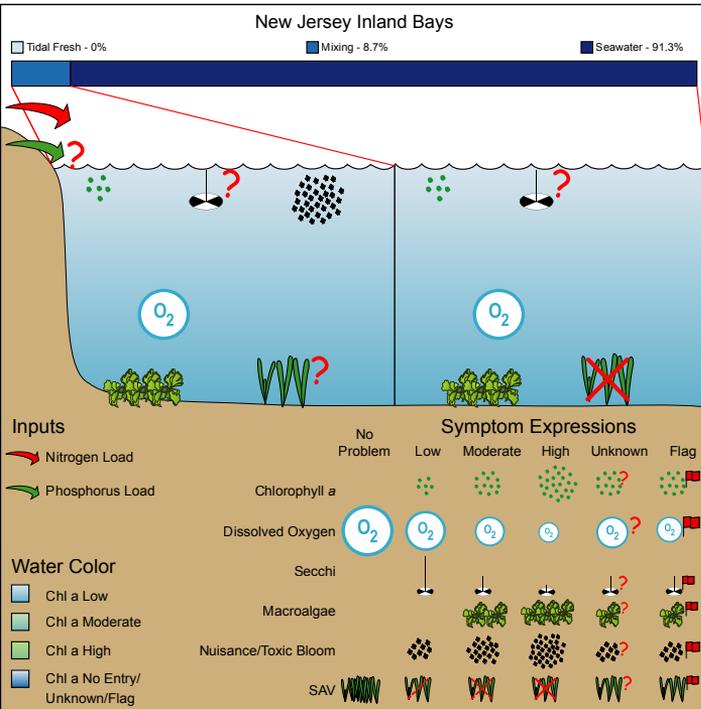


## ASSETS Rating

Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.



## EUTROPHIC CONDITION



## WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km <sup>2</sup> )	278	Urban (km <sup>2</sup> )	642 (19.3%)	Area (km <sup>2</sup> )	3,431
Tidal fresh zone area (km <sup>2</sup> )	0	Agriculture (km <sup>2</sup> )	293 (8.8%)	Mean elevation (m)	18
Mixing zone area (km <sup>2</sup> )	24	Forest (km <sup>2</sup> )	1,567 (47%)	Max. elevation (m)	61
Saltwater zone area (km <sup>2</sup> )	254	Wetland (km <sup>2</sup> )	829 (24.9%)	Watershed: estuary ratio	12.3
Volume (1,000 x m <sup>3</sup> )	308,580	Range (km <sup>2</sup> )	0 (0%)	TSS (tonne y <sup>-1</sup> )	99,800
Depth (m)	1.11	Barren (km <sup>2</sup> )	0 (0%)	DIN (kg y <sup>-1</sup> )	1,100,000
Tide Height (m)	1.00	Total (km <sup>2</sup> )	3,331 (0%)	DIP (kg y <sup>-1</sup> )	Unknown
Residence Time (d)	1	Population	330,178	TSS/est. area (tonne km <sup>-2</sup> y <sup>-1</sup> )	359
		Popn: est. area ratio	1,188	DIN/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	3,957
				DIP/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	Unknown