

# Narragansett Bay

## SUMMARY

Narragansett Bay has a high eutrophic expression, worse than the moderate low rating in the 1999 assessment. Moderate chlorophyll-a expression and high macroalgal abundance mostly in the northern part of the bay has led to low dissolved oxygen events and some nuisance/toxic algal blooms in all salinity zones.

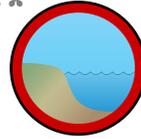
## Influencing Factors

Low to moderate nitrogen input and moderate to high susceptibility (moderate ability to dilute and flush nutrients).



## Eutrophic Conditions \*\*

High primary and secondary symptom levels indicate serious eutrophication problems.



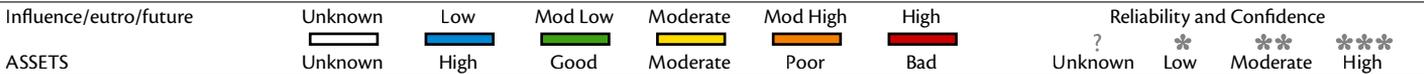
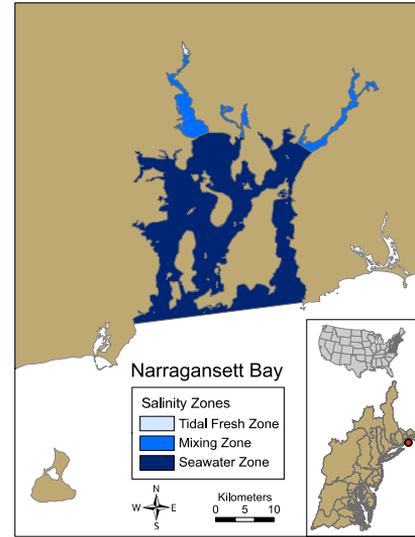
## Future Outlook

Nutrient related symptoms observed in the estuary are likely to improve.

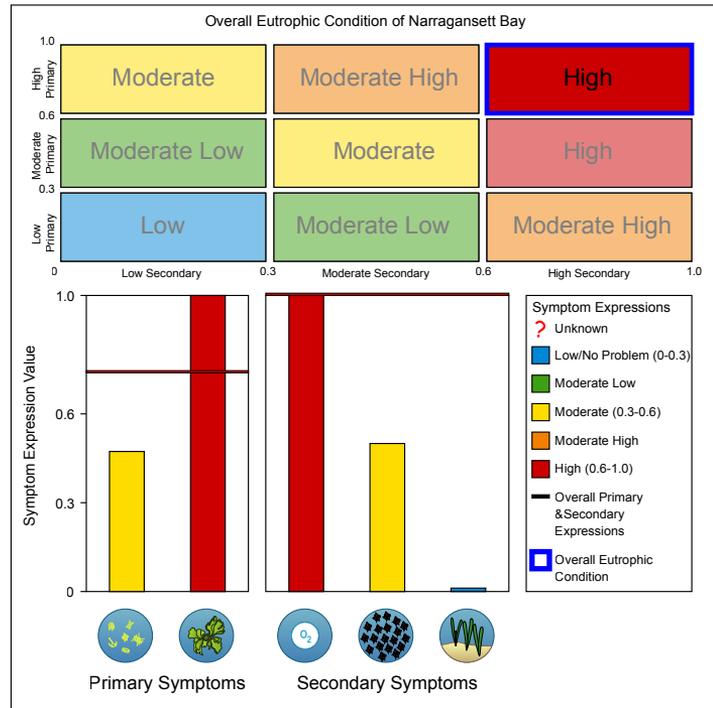
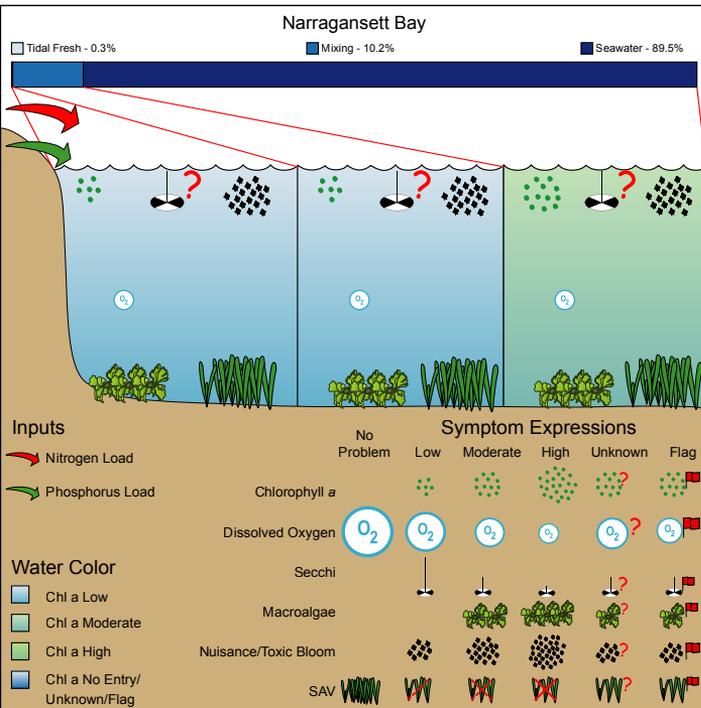


## ASSETS Rating

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> )	416	Urban (km <sup>2</sup> )	1,715 (41.5%)	Area (km <sup>2</sup> )	4,310
Tidal fresh zone area (km <sup>2</sup> )	1	Agriculture (km <sup>2</sup> )	225 (5.5%)	Mean elevation (m)	77
Mixing zone area (km <sup>2</sup> )	42	Forest (km <sup>2</sup> )	2,108 (51%)	Max. elevation (m)	400
Saltwater zone area (km <sup>2</sup> )	372	Wetland (km <sup>2</sup> )	70 (1.7%)	Watershed: estuary ratio	10.4
Volume (1,000 x m <sup>3</sup> )	3,456,960	Range (km <sup>2</sup> )	16 (0.4%)	TSS (tonne y <sup>-1</sup> )	116,000
Depth (m)	8.31	Barren (km <sup>2</sup> )	0 (0%)	TN (kg y <sup>-1</sup> )	6,993,000
Tide Height (m)	1.19	Total (km <sup>2</sup> )	4,134 (0%)	TP (kg y <sup>-1</sup> )	1,207,976
Residence Time (d)	24	Population	1,596,904	TSS/est. area (tonne km <sup>-2</sup> y <sup>-1</sup> )	279
		Popn: est. area ratio	3,839	TN/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	16,810
				TP/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	2,904