

Long Island Sound

SUMMARY

Long Island Sound's developed watershed combined with summer stratification results in seasonal hypoxia. Dissolved oxygen concentrations below 3 mg/L typically cover at least 50% of the area, with anoxia occurring some years in the western Sound. Chlorophyll concentrations are also high.

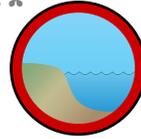
Influencing Factors

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.



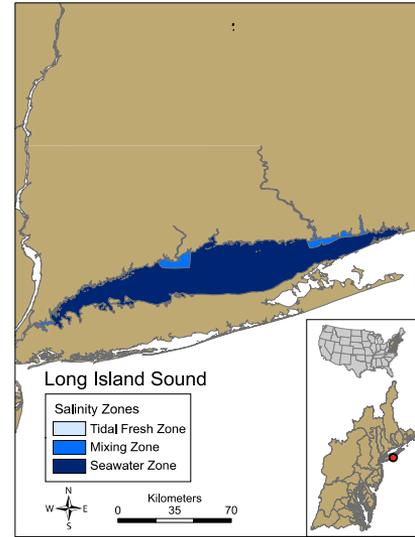
Future Outlook

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



ASSETS Rating

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



Influence/eutro/future

Unknown

Low

Mod Low

Moderate

Mod High

High

Reliability and Confidence

ASSETS

Unknown

High

Good

Moderate

Poor

Bad

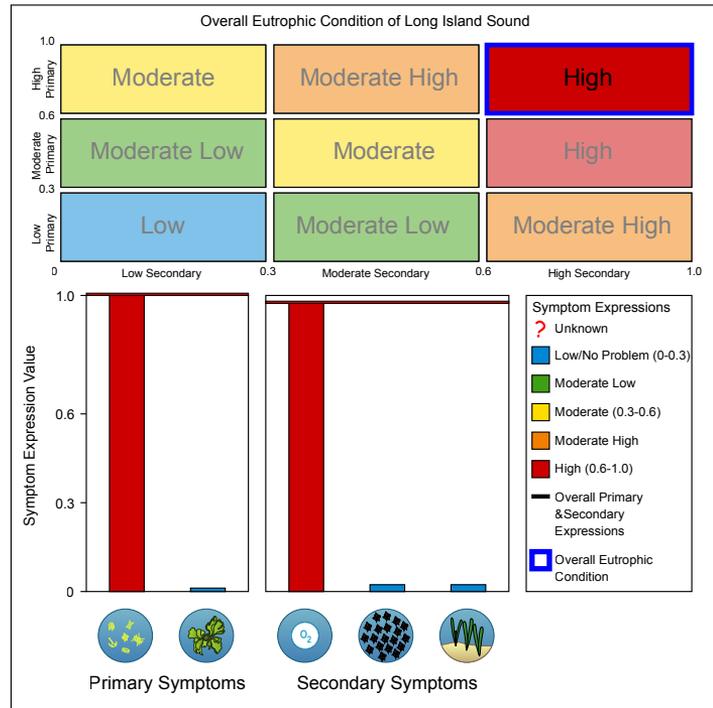
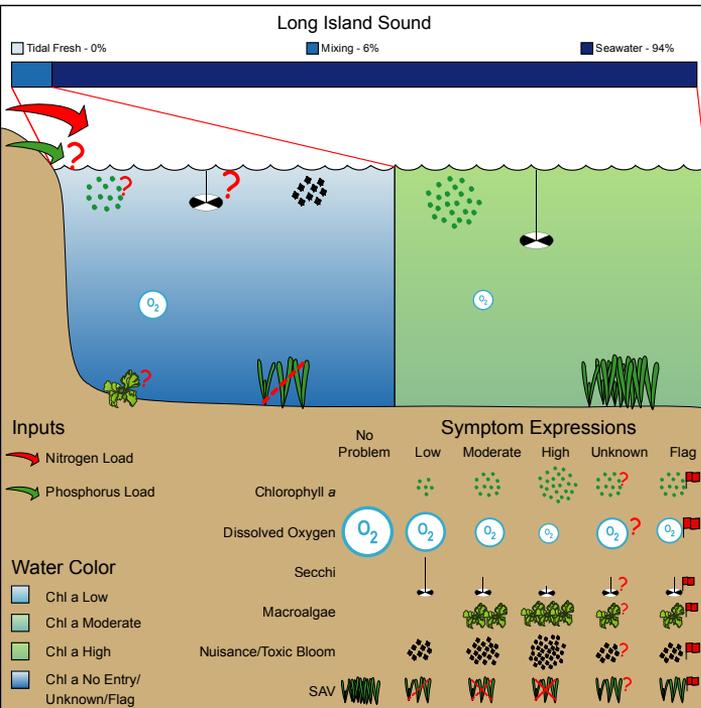
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High

EUTROPHIC CONDITION



WATERSHED AND ESTUARY CHARACTERISTICS

Estuary	Landuse / Population		Watershed Details / Input Loads		
Area (km ²)	3,259	Urban (km ²)	6,649 (16.3%)	Area (km ²)	12,773
Tidal fresh zone area (km ²)	0	Agriculture (km ²)	4,566 (11.2%)	Mean elevation (m)	178
Mixing zone area (km ²)	196	Forest (km ²)	28,858 (70.8%)	Max. elevation (m)	736
Saltwater zone area (km ²)	3,063	Wetland (km ²)	650 (1.6%)	Watershed: estuary ratio	3.9
Volume (1,000 x m ³)	63,452,730	Range (km ²)	31 (0.1%)	TSS (tonne y ⁻¹)	575,000
Depth (m)	19.47	Barren (km ²)	0 (0%)	TN (kg y ⁻¹)	50,000,000
Tide Height (m)	1.85	Total (km ²)	40,753 (0%)	DIP (kg y ⁻¹)	Unknown
Residence Time (d)	56	Population	4,914,605	TSS/est. area (tonne km ⁻² y ⁻¹)	176
		Popn: est. area ratio	1,508	TN/est. area (kg km ⁻² y ⁻¹)	15,342
				DIP/est. area (kg km ⁻² y ⁻¹)	Unknown