

Delaware Bay

SUMMARY

Delaware bay is an historically turbid system due to resuspension. Nutrient loads and chlorophyll-a concentrations are high with no marked eutrophication symptoms. Past hypoxic levels in the tidal fresh zone have been relieved with reductions of primary biochemical oxygen demand. There has been no SAV in the saline portion within recent history.

Influencing Factors

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



Eutrophic Conditions ***

Primary symptoms high but problems with more serious secondary symptoms still not being expressed.



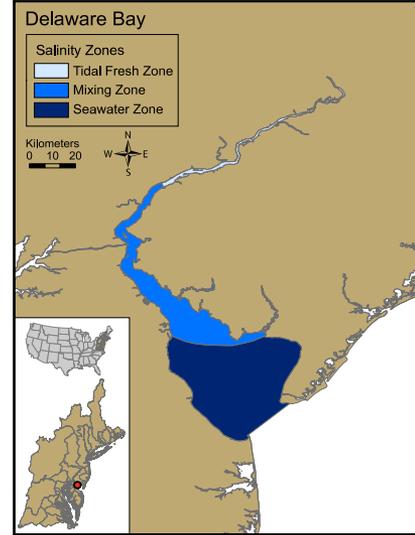
Future Outlook

Nutrient related symptoms observed in the estuary will most likely stay the same.

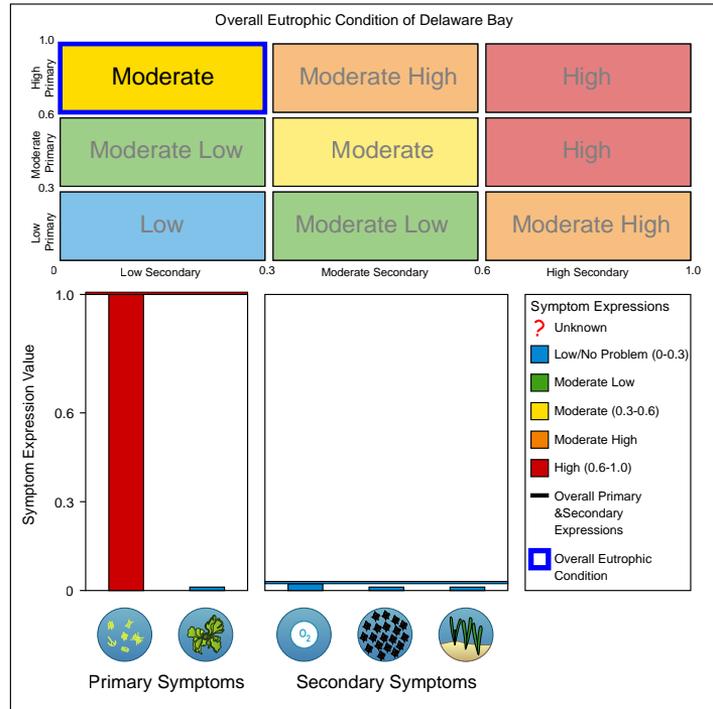
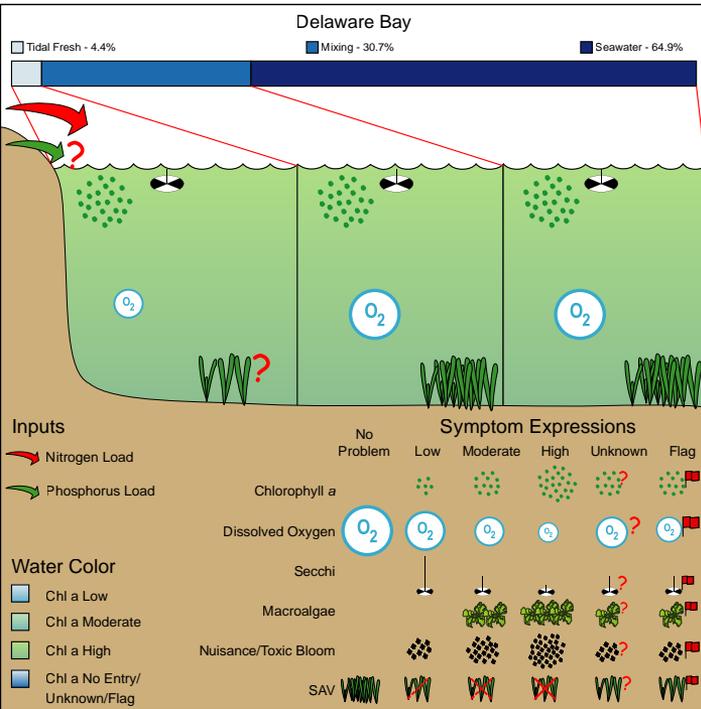


ASSETS Rating

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 ²)	2,070	Urban (km ²)	6,496 (19.9%)	Area (km ²)	33,254
Tidal fresh zone area (km ²)	91	Agriculture (km ²)	10,482 (32.1%)	Mean elevation (m)	243
Mixing zone area (km ²)	635	Forest (km ²)	14,520 (44.4%)	Max. elevation (m)	1,101
Saltwater zone area (km ²)	1,343	Wetland (km ²)	1,101 (3.4%)	Watershed: estuary ratio	16.1
Volume (1,000 x m ³)	12,668,400	Range (km ²)	83 (0.3%)	TSS (tonne y ⁻¹)	439,000
Depth (m)	6.12	Barren (km ²)	0 (0%)	TN (kg y ⁻¹)	45,540,000
Tide Height (m)	1.56	Total (km ²)	32,681 (0%)	DIP (kg y ⁻¹)	Unknown
Residence Time (d)	8	Population	7,209,581	TSS/est. area (tonne km ⁻² y ⁻¹)	212
		Popn: est. area ratio	3,483	TN/est. area (kg km ⁻² y ⁻¹)	22,000
				DIP/est. area (kg km ⁻² y ⁻¹)	Unknown