

Hudson River/Raritan Bay

SUMMARY

Hudson River/Raritan Bay is characterized by high chlorophyll-a expression, a rating unchanged since the 1999 assessment. There are some dissolved oxygen events. However, levels have improved from a moderate to a low symptom expression since 1999.

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.



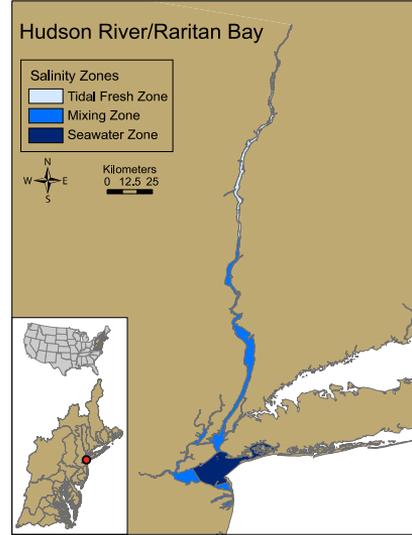
Future Outlook

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



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

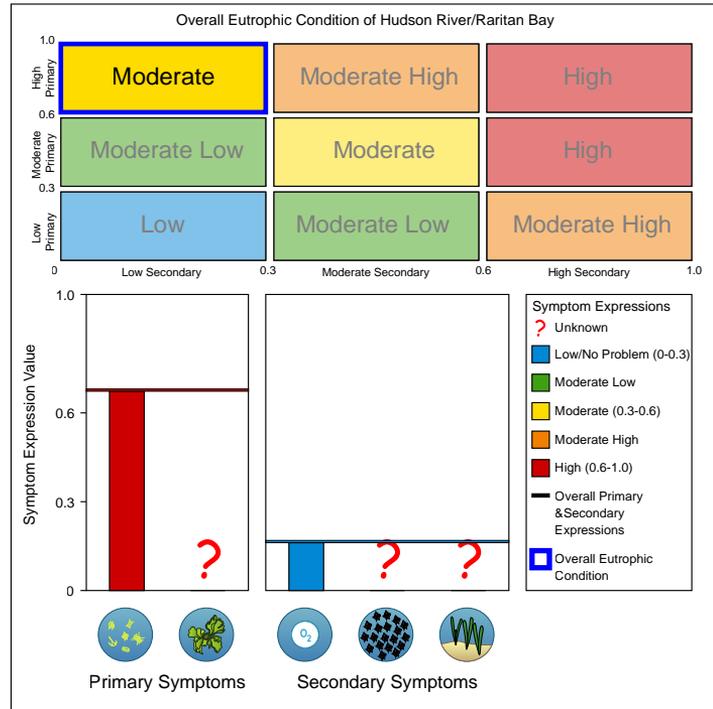
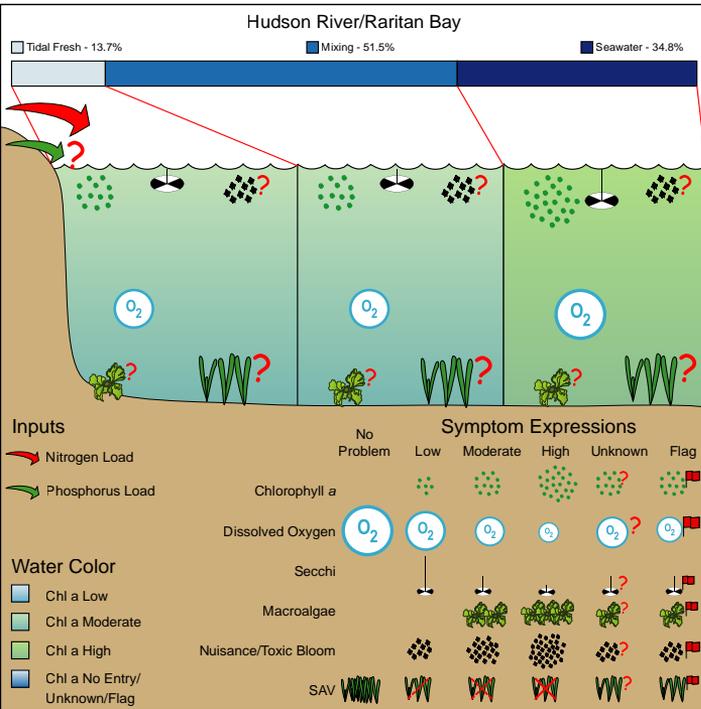
?

*

**

High

EUTROPHIC CONDITION



WATERSHED AND ESTUARY CHARACTERISTICS

Estuary	Landuse / Population	Watershed Details / Input Loads
Area (km ²)	799	Urban (km ²) 7,814 (19.2%)
Tidal fresh zone area (km ²)	109	Agriculture (km ²) 9,653 (23.7%)
Mixing zone area (km ²)	411	Forest (km ²) 22,603 (55.5%)
Saltwater zone area (km ²)	278	Wetland (km ²) 456 (1.1%)
Volume (1,000 x m ³)	4,897,870	Range (km ²) 228 (0.6%)
Depth (m)	6.13	Barren (km ²) 0 (0%)
Tide Height (m)	1.39	Total (km ²) 40,753 (0%)
Residence Time (d)	9	Population 12,111,413
		Popn: est. area ratio 15,158
		Area (km ²) 41,603
		Mean elevation (m) 290
		Max. elevation (m) 1,387
		Watershed: estuary ratio 52.1
		TSS (tonne y ⁻¹) 2,030,000
		TN (kg y ⁻¹) 71,900,000
		DIP (kg y ⁻¹) Unknown
		TSS/est. area (tonne km ⁻² y ⁻¹) 2,541
		TN/est. area (kg km ⁻² y ⁻¹) 89,988
		DIP/est. area (kg km ⁻² y ⁻¹) Unknown