

Charlotte Harbor

SUMMARY

The overall eutrophic condition of Charlotte Harbor is moderate but no change can be determined since the 1999 assessment. Water body conditions leading to this rating include high primary symptom expressions and low secondary symptom expression. Conditions are expected to worsen in the future due to land use conversions to row crops or urban.

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 substantially worsen.



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

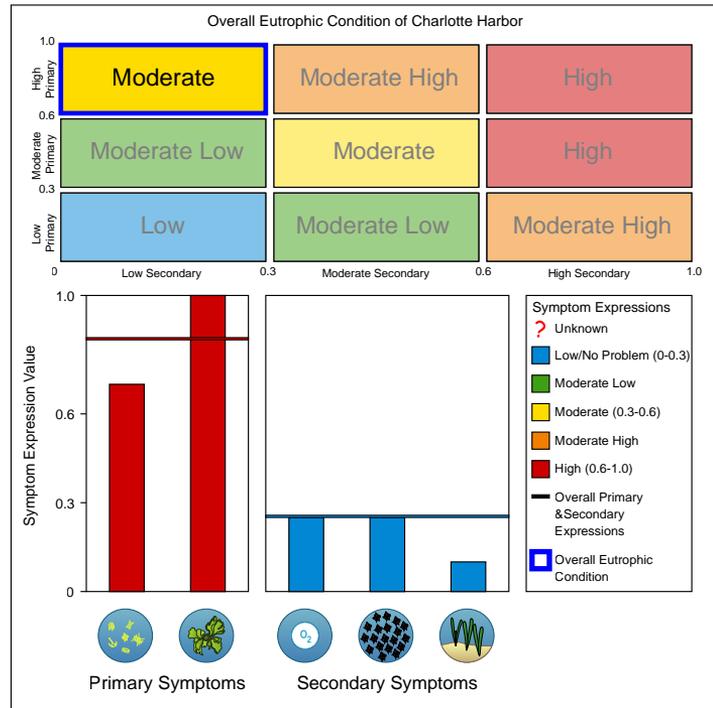
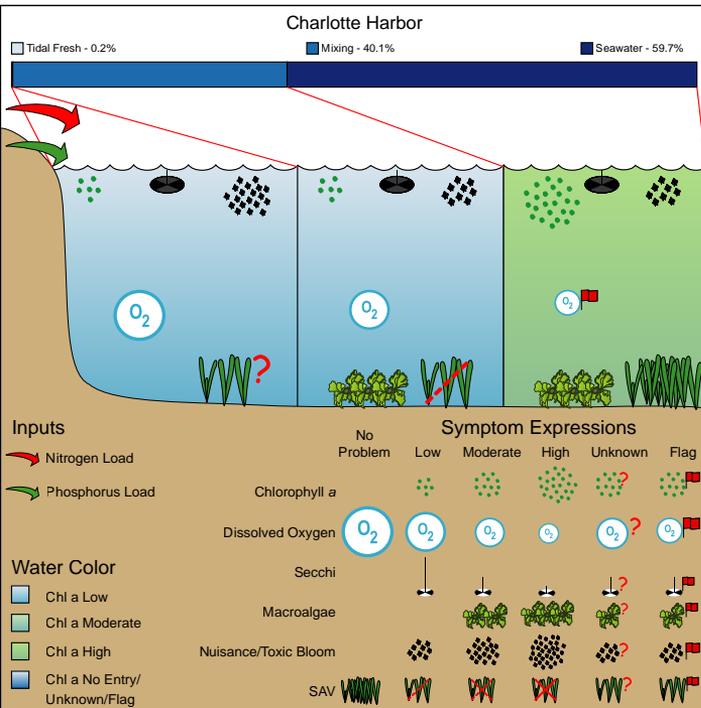
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High

EUTROPHIC CONDITION



WATERSHED AND ESTUARY CHARACTERISTICS

Estuary	Landuse / Population		Watershed Details / Input Loads		
Area (km ²)	502	Urban (km ²)	1,412 (12.3%)	Area (km ²)	8,134
Tidal fresh zone area (km ²)	1	Agriculture (km ²)	4,038 (35.3%)	Mean elevation (m)	22
Mixing zone area (km ²)	201	Forest (km ²)	785 (6.9%)	Max. elevation (m)	75
Saltwater zone area (km ²)	300	Wetland (km ²)	1,588 (13.9%)	Watershed: estuary ratio	16.2
Volume (1,000 x m ³)	818,260	Range (km ²)	3,626 (31.7%)	TSS (tonne y ⁻¹)	140,000
Depth (m)	1.63	Barren (km ²)	0 (0%)	TN (kg y ⁻¹)	8,232,825
Tide Height (m)	0.65	Total (km ²)	11,448 (0%)	TP (kg y ⁻¹)	603,776
Residence Time (d)	3	Population	397,072	TSS/est. area (tonne km ⁻² y ⁻¹)	279
		Popn: est. area ratio	791	TN/est. area (kg km ⁻² y ⁻¹)	16,400
				TP/est. area (kg km ⁻² y ⁻¹)	1,203