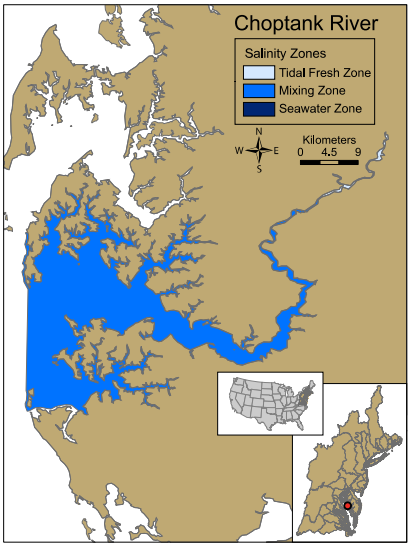
Choptank River

SUMMARY

The overall eutrophic status of the Choptank River is high, due to high chlorophyll-a symptom ratings, periodic hypoxic dissolved oxygen levels, and recurring harmful algal blooms (P. minimum). Despite these poor water quality conditions, SAV has increased since 1999.

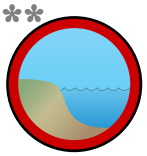


Influencing Factors

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 somewhat.

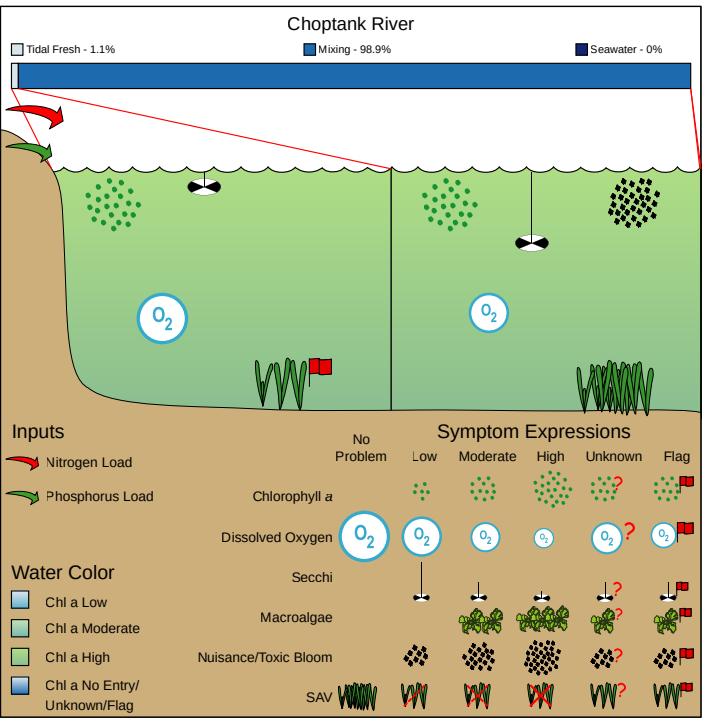
ASSETS Rating

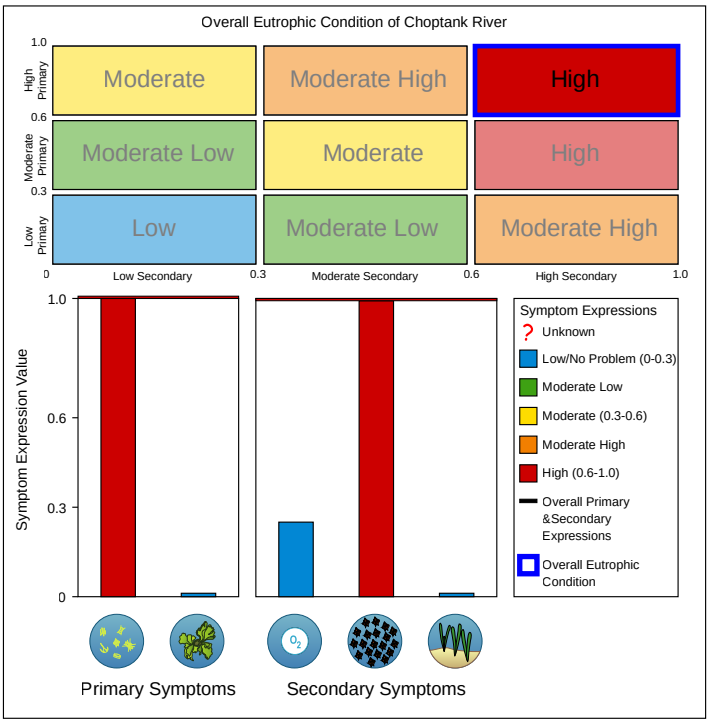
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	411	Urban (km^2)	101 (4.9%)	Area (km^2)	1,888
Tidal fresh zone area (km^2)	5	Agriculture (km^2)	1,176 (57.2%)	Mean elevation (m)	10
Mixing zone area (km^2)	406	Forest (km^2)	567 (27.6%)	Max. elevation (m)	33
Saltwater zone area (km^2)	0	Wetland (km^2)	212 (10.3%)	Watershed: estuary ratio	4.6
Volume (1,000 x m^3)	1,269,990	Range (km^2)	0 (0%)	TSS (tonne y^{-1})	40,200
Depth (m)	3.09	Barren (km^2)	0 (0%)	TN (kg y^{-1})	267,007
Tide Height (m)	0.50	Total (km^2)	2,056 (0%)	TP (kg y^{-1})	22,333
Residence Time (d)	19	Population	49,527	TSS/est. area (tonne km^{-2} y^{-1})	98
		Popn: est. area ratio	121	TN/est. area (kg km^{-2} y^{-1})	650
				TP/est. area (kg km^{-2} y^{-1})	54