

Chester River

SUMMARY

The overall eutrophic condition in the Chester River is high, but conditions in the tidal fresh zone have improved. This system is characterized by a high chlorophyll-a symptom expression, leading to frequent low dissolved oxygen events. However, macroalgae in this system is not a problem. In some areas, there has been an increase in SAV.

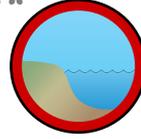
Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.



Eutrophic Conditions **

High primary and secondary symptom levels indicate serious eutrophication problems.



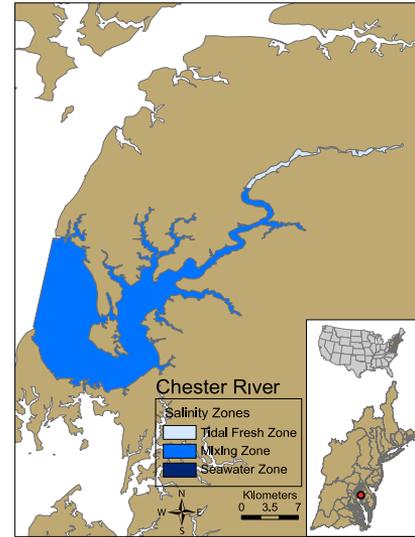
Future Outlook

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



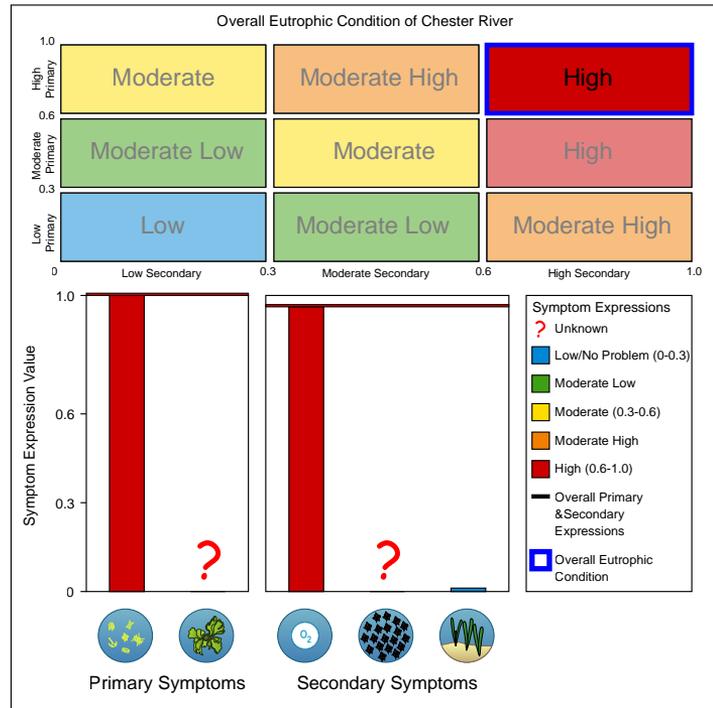
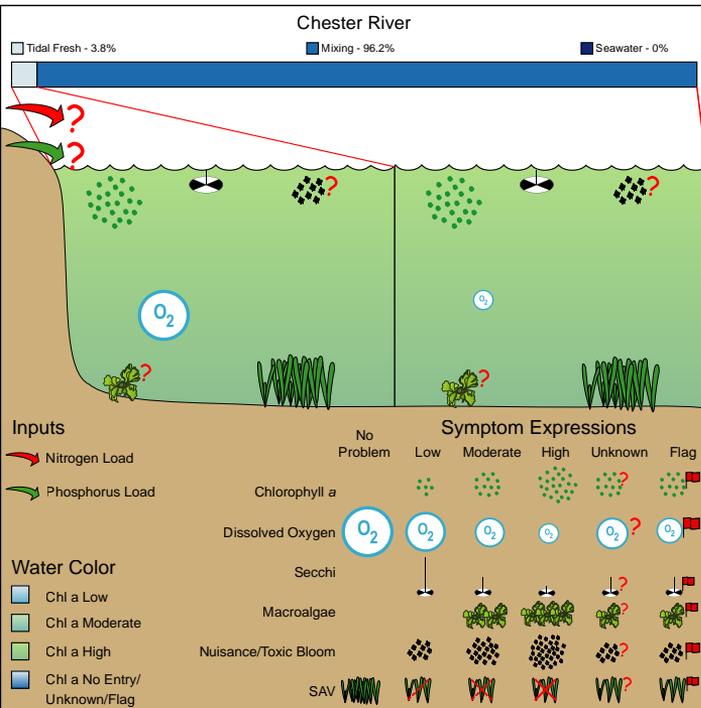
ASSETS Rating

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	?	*	**	**	High

EUTROPHIC CONDITION



WATERSHED AND ESTUARY CHARACTERISTICS

Estuary	Landuse / Population		Watershed Details / Input Loads		
Area (km ²)	196	Urban (km ²)	31 (3.2%)	Area (km ²)	1,008
Tidal fresh zone area (km ²)	7	Agriculture (km ²)	681 (69.4%)	Mean elevation (m)	12
Mixing zone area (km ²)	189	Forest (km ²)	228 (23.2%)	Max. elevation (m)	23
Saltwater zone area (km ²)	0	Wetland (km ²)	41 (4.2%)	Watershed: estuary ratio	5.1
Volume (1,000 x m ³)	680,120	Range (km ²)	0 (0%)	TSS (tonne y ⁻¹)	54,300
Depth (m)	3.47	Barren (km ²)	0 (0%)	DIN (kg y ⁻¹)	Unknown
Tide Height (m)	0.48	Total (km ²)	982 (0%)	DIP (kg y ⁻¹)	Unknown
Residence Time (d)	27	Population	27,873	TSS/est. area (tonne km ⁻² y ⁻¹)	277
		Popn: est. area ratio	142	DIN/est. area (kg km ⁻² y ⁻¹)	Unknown
				DIP/est. area (kg km ⁻² y ⁻¹)	Unknown