

St. Marys River/Cumberland Sound

SUMMARY

The St. Marys River/Cumberland Sound estuary is characterized by periodic low dissolved oxygen events and an overall trend of declining summertime DO. Macroalgal and harmful algal blooms have not been reported in this system and SAV are not characteristic of the estuary. Conditions are expected to worsen in the future due to rapid population growth.

Influencing Factors

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

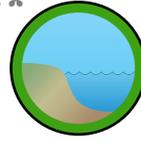
Future Outlook

Nutrient related symptoms observed in the estuary are likely to substantially worsen.



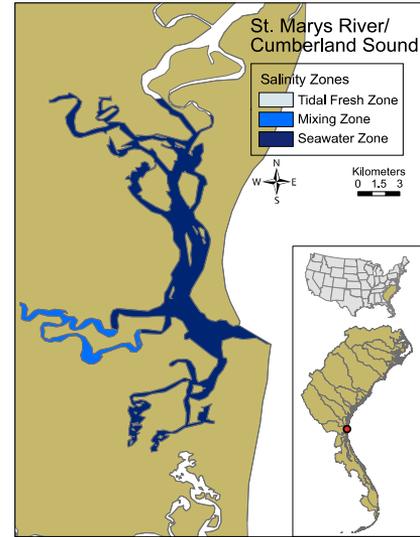
Eutrophic Conditions **

Moderate secondary symptoms indicate substantial eutrophic conditions, but the No Problem primary indicates other factors may be involved in causing conditions.

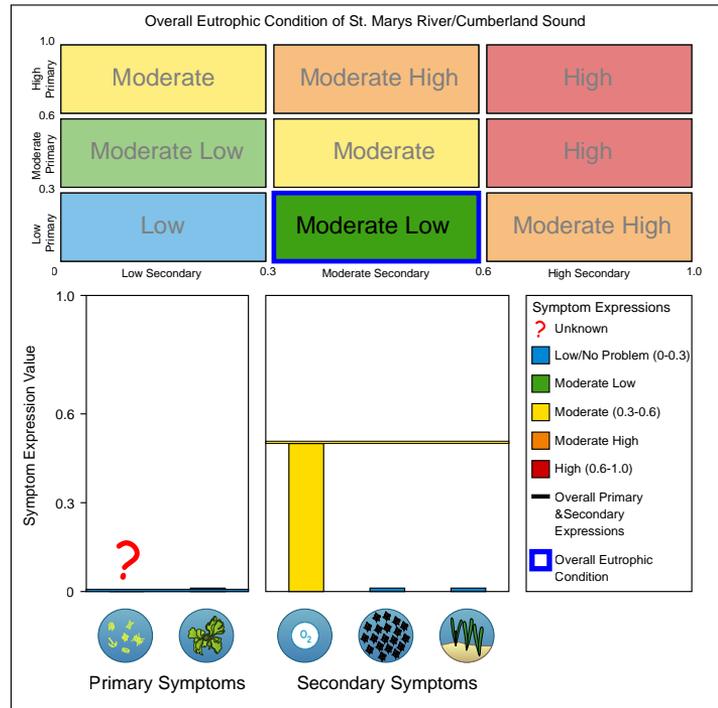
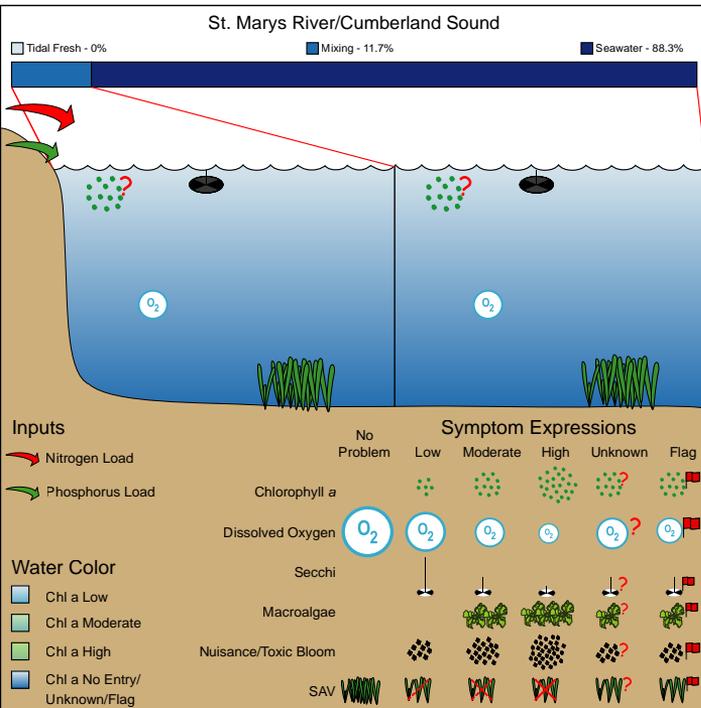


ASSETS Rating

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)	64	Urban (km ²)	137 (3.2%)	Area (km ²)	4,386
Tidal fresh zone area (km ²)	0	Agriculture (km ²)	119 (2.7%)	Mean elevation (m)	26
Mixing zone area (km ²)	7	Forest (km ²)	2,888 (66.4%)	Max. elevation (m)	55
Saltwater zone area (km ²)	57	Wetland (km ²)	1,202 (27.7%)	Watershed: estuary ratio	68.5
Volume (1,000 x m ³)	213,760	Range (km ²)	0 (0%)	TSS (tonne y ⁻¹)	21,400
Depth (m)	3.34	Barren (km ²)	0 (0%)	TN (kg y ⁻¹)	2,545,193
Tide Height (m)	1.75	Total (km ²)	4,346 (0%)	TP (kg y ⁻¹)	82,222
Residence Time (d)	2	Population	65,087	TSS/est. area (tonne km ⁻² y ⁻¹)	334
		Popn: est. area ratio	1,017	TN/est. area (kg km ⁻² y ⁻¹)	39,769
				TP/est. area (kg km ⁻² y ⁻¹)	1,285