

St. Catherines/Sapelo Sounds

SUMMARY

No data were available to assess the eutrophic condition of St. Catherines/Sapelo Sounds. However, the estuary was characterized by a moderate low eutrophic condition in the 1999 assessment based on moderate chlorophyll-a concentrations, a low symptom expression for dissolved oxygen, and no problematic macroalgal or nuisance/toxic blooms.

Influencing Factors

Low to moderate nitrogen input and moderate to high susceptibility (moderate ability to dilute and flush nutrients).



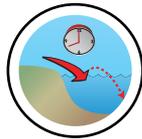
Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.



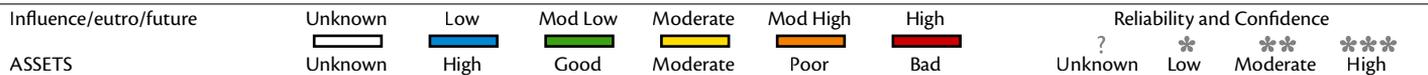
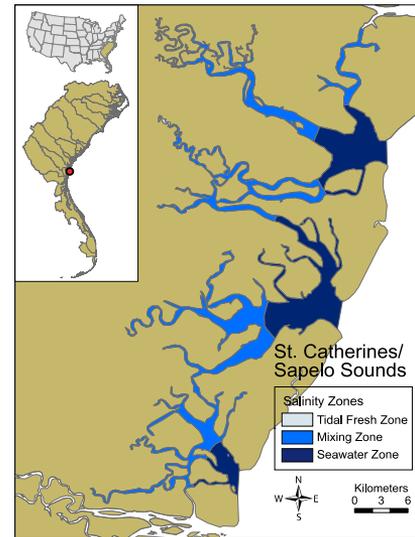
Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

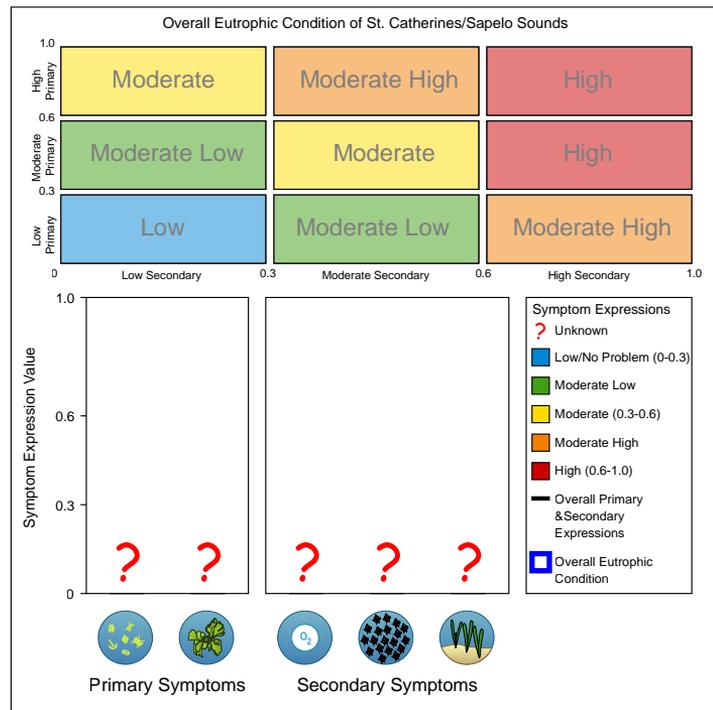
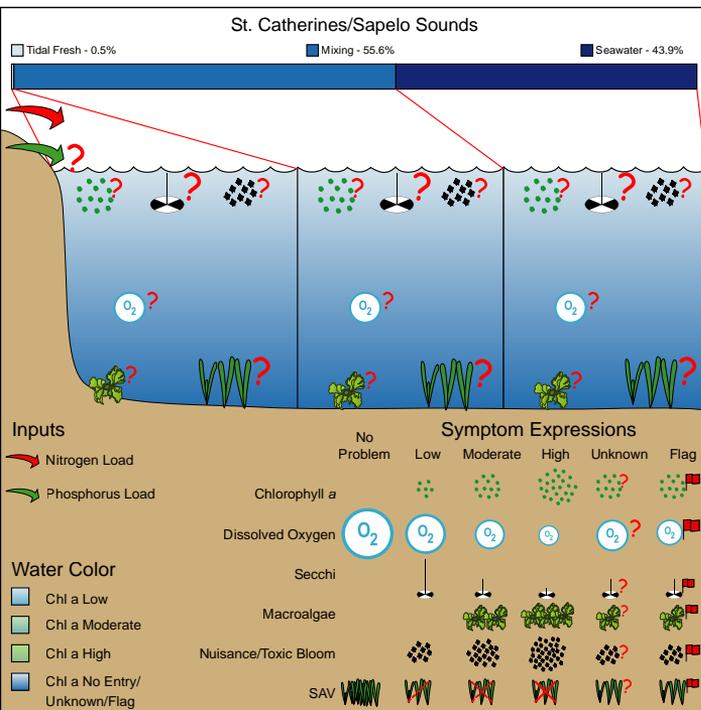


ASSETS Rating

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) | 188 | Urban (km ²) 104 (4.8%) |
| Tidal fresh zone area (km ²) | <1 | Agriculture (km ²) 28 (1.3%) |
| Mixing zone area (km ²) | 105 | Forest (km ²) 1,277 (58.6%) |
| Saltwater zone area (km ²) | 83 | Wetland (km ²) 759 (34.8%) |
| Volume (1,000 x m ³) | 682,440 | Range (km ²) 13 (0.6%) |
| Depth (m) | 3.63 | Barren (km ²) 0 (0%) |
| Tide Height (m) | 2.22 | Total (km ²) 2,181 (0%) |
| Residence Time (d) | 1 | Population 24,051 |
| | | Popn: est. area ratio 128 |
| | | Area (km ²) 2,255 |
| | | Mean elevation (m) 5 |
| | | Max. elevation (m) 27 |
| | | Watershed: estuary ratio 12.0 |
| | | TSS (tonne y ⁻¹) 4,150 |
| | | TN (kg y ⁻¹) 270,000 |
| | | DIP (kg y ⁻¹) Unknown |
| | | TSS/est. area (tonne km ⁻² y ⁻¹) 22 |
| | | TN/est. area (kg km ⁻² y ⁻¹) 1,436 |
| | | DIP/est. area (kg km ⁻² y ⁻¹) Unknown |