

New River

SUMMARY

The New River has shown considerable improvement due to improved military and civilian wastewater treatment. Decreases were realized in ammonium, phosphate, TSS, and chlorophyll-a, and increases occurred in water clarity and bottom DO. Blooms still occur in the upper estuary driven by upstream discharge and N loading, likely from swine farms.

Influencing Factors

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



Eutrophic Conditions ***

Primary symptoms high but problems with more serious secondary symptoms still not being expressed.



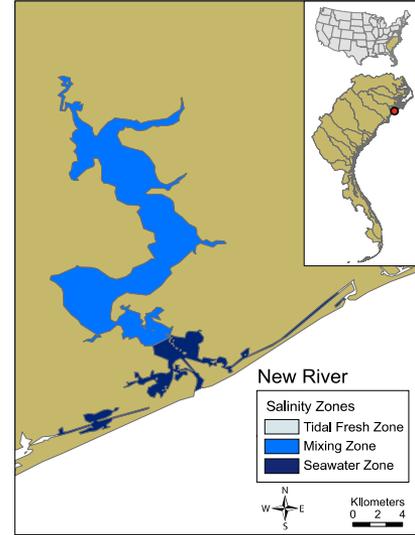
Future Outlook

Nutrient related symptoms observed in the estuary will most likely stay the same.

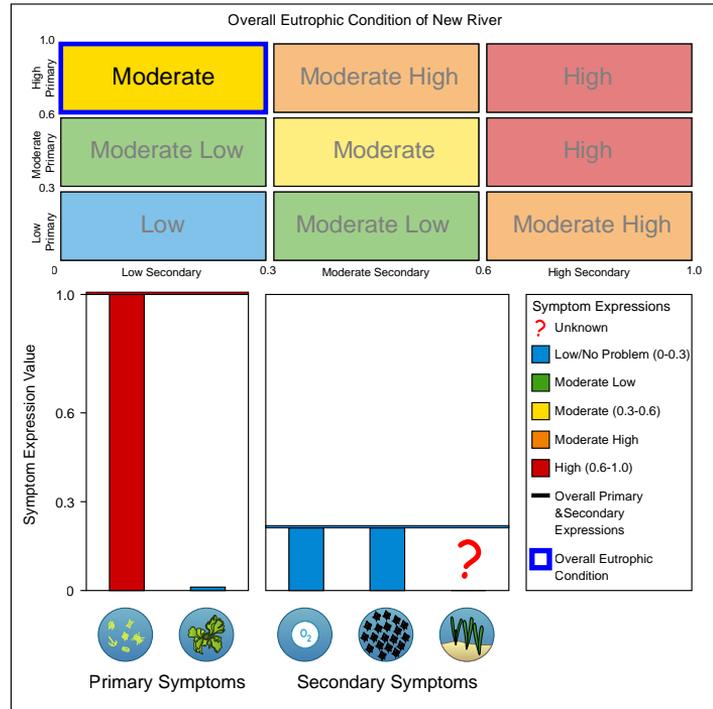
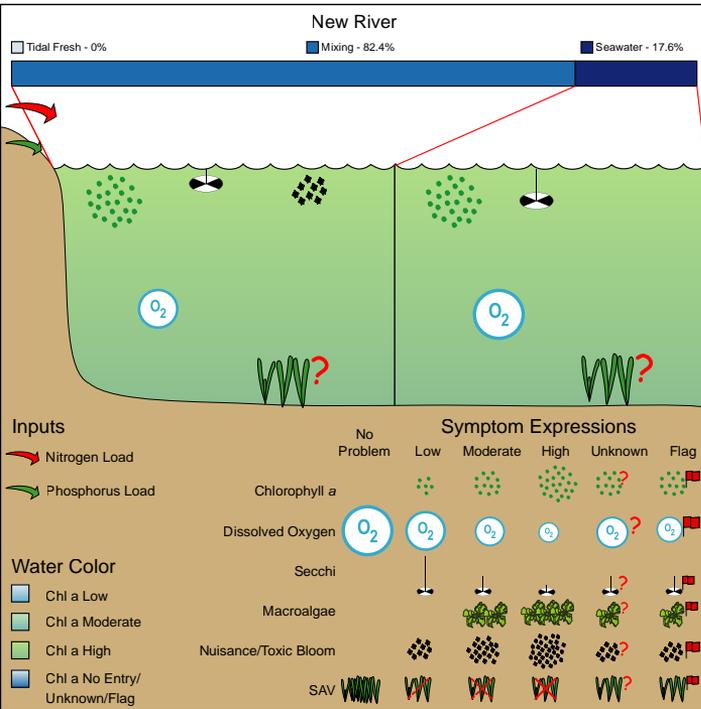


ASSETS Rating

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)	88	Urban (km ²)	238 (20.5%)	Area (km ²)	1,177
Tidal fresh zone area (km ²)	0	Agriculture (km ²)	155 (13.4%)	Mean elevation (m)	12
Mixing zone area (km ²)	73	Forest (km ²)	603 (52%)	Max. elevation (m)	35
Saltwater zone area (km ²)	15	Wetland (km ²)	163 (14.1%)	Watershed: estuary ratio	13.4
Volume (1,000 x m ³)	146,960	Range (km ²)	0 (0%)	TSS (tonne y ⁻¹)	77,500
Depth (m)	1.67	Barren (km ²)	0 (0%)	TN (kg y ⁻¹)	54,480
Tide Height (m)	0.91	Total (km ²)	1,160 (0%)	TP (kg y ⁻¹)	2,270
Residence Time (d)	2	Population	121,657	TSS/est. area (tonne km ⁻² y ⁻¹)	881
		Popn: est. area ratio	1,383	TN/est. area (kg km ⁻² y ⁻¹)	619
				TP/est. area (kg km ⁻² y ⁻¹)	26