

St. Johns River

SUMMARY

The eutrophic condition of the St. John's River has worsened since the 1999 assessment. This is primarily due to an increasing incidence of nuisance/toxic and algal blooms. Total phosphorus has increased in the tidal fresh water reach. Nitrogen fixation by blue green algae may be increasing total nitrogen concentration. TMDLs are under litigation.

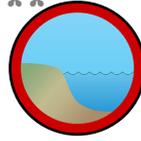
Influencing Factors

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



Eutrophic Conditions ***

High primary and secondary symptom levels indicate serious eutrophication problems.



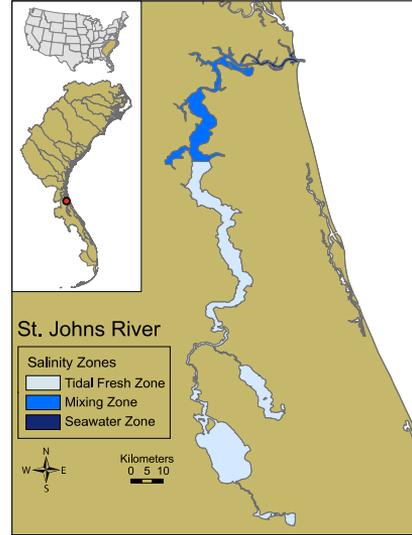
Future Outlook

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

Reliability and Confidence

ASSETS

Unknown

High

Good

Moderate

Poor

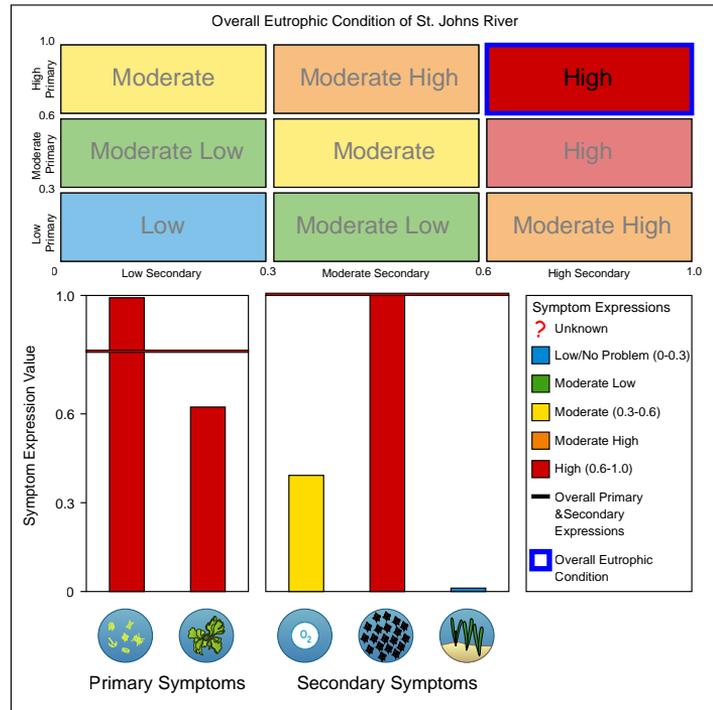
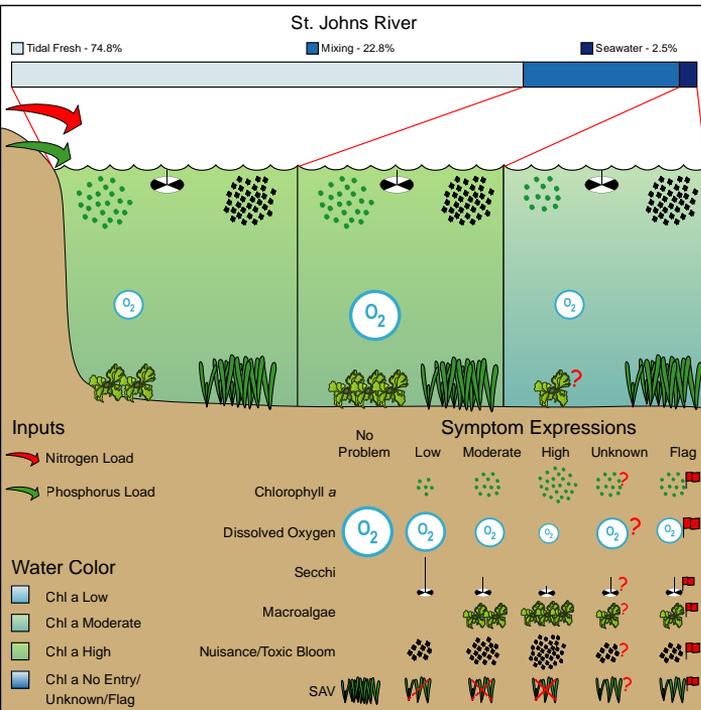
Bad

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EUTROPHIC CONDITION



WATERSHED AND ESTUARY CHARACTERISTICS

Estuary	Landuse / Population			Watershed Details / Input Loads	
Area (km ²)	684	Urban (km ²)	3,442 (15.7%)	Area (km ²)	23,214
Tidal fresh zone area (km ²)	512	Agriculture (km ²)	5,136 (23.4%)	Mean elevation (m)	18
Mixing zone area (km ²)	156	Forest (km ²)	7,612 (34.6%)	Max. elevation (m)	72
Saltwater zone area (km ²)	17	Wetland (km ²)	4,284 (19.5%)	Watershed: estuary ratio	33.9
Volume (1,000 x m ³)	1,511,640	Range (km ²)	1,500 (6.8%)	TSS (tonne y ⁻¹)	200,000
Depth (m)	2.21	Barren (km ²)	0 (0%)	TN (kg y ⁻¹)	12,600,000
Tide Height (m)	0.66	Total (km ²)	21,973 (0%)	TP (kg y ⁻¹)	1,200,000
Residence Time (d)	6	Population	2,268,634	TSS/est. area (tonne km ⁻² y ⁻¹)	292
		Popn: est. area ratio	3,317	TN/est. area (kg km ⁻² y ⁻¹)	18,421
				TP/est. area (kg km ⁻² y ⁻¹)	1,754