

# St. Croix River/Cobscook Bay

## SUMMARY

Cobscook is considered to be a coastal embayment. While the overall eutrophic condition is rated as moderate, this condition, including harmful algal blooms and macroalgae presence are believed to be the result of the bay's proximity to upwelled deep nutrient rich continental slope water rather than resulting from land-use inputs.

## Influencing Factors

Any level nitrogen input and low to moderate susceptibility (good ability to dilute and flush nutrients).



## Future Outlook

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



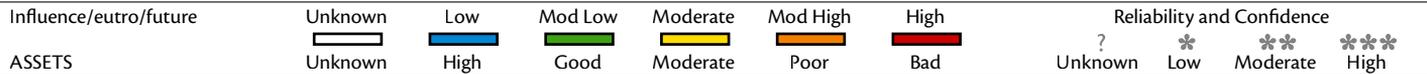
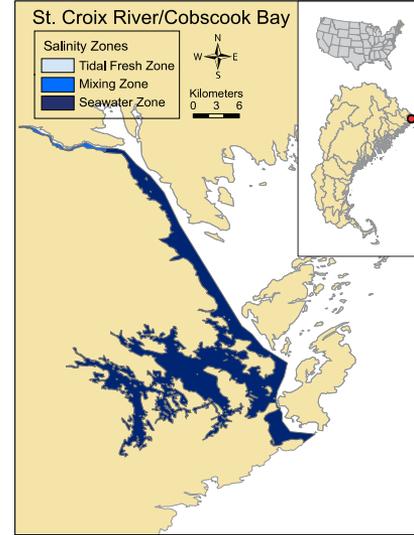
## Eutrophic Conditions \*\*\*

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

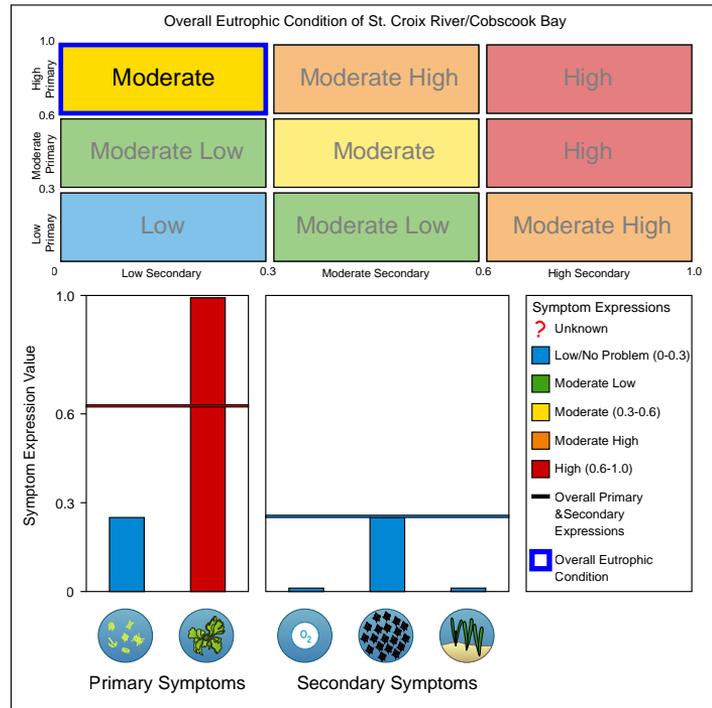
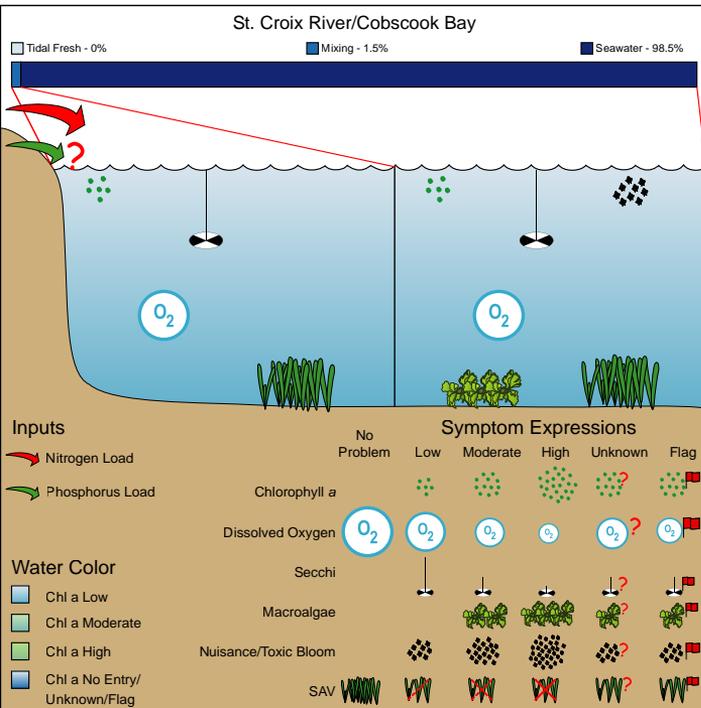


## ASSETS Rating

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 <sup>2</sup> )	148	Urban (km <sup>2</sup> )	31 (1%)	Area (km <sup>2</sup> )	3,555
Tidal fresh zone area (km <sup>2</sup> )	0	Agriculture (km <sup>2</sup> )	132 (4.2%)	Mean elevation (m)	97
Mixing zone area (km <sup>2</sup> )	2	Forest (km <sup>2</sup> )	2,675 (84.7%)	Max. elevation (m)	335
Saltwater zone area (km <sup>2</sup> )	146	Wetland (km <sup>2</sup> )	319 (10.1%)	Watershed: estuary ratio	24.0
Volume (1,000 x m <sup>3</sup> )	6,744,360	Range (km <sup>2</sup> )	3 (0.1%)	TSS (tonne y <sup>-1</sup> )	40,300
Depth (m)	45.57	Barren (km <sup>2</sup> )	0 (0%)	DIN (kg y <sup>-1</sup> )	25,550,000
Tide Height (m)	5.63	Total (km <sup>2</sup> )	3,160 (0%)	DIP (kg y <sup>-1</sup> )	Unknown
Residence Time (d)	33	Population	10,930	TSS/est. area (tonne km <sup>-2</sup> y <sup>-1</sup> )	272
		Popn: est. area ratio	74	DIN/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	172,635
				DIP/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	Unknown