

# Sabine Lake

## SUMMARY

Sabine Lake exhibits a low eutrophic condition, due to low symptom expressions for all indicators. Nutrient loads are expected to increase slightly due to a growing population, but overall conditions in 2004 suggest that eutrophication is not a significant problem. Conditions are expected to worsen as population increases.

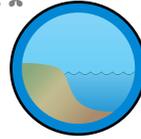
### Influencing Factors

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



### Eutrophic Conditions \*\*

Level of expression of eutrophic conditions is minimal.



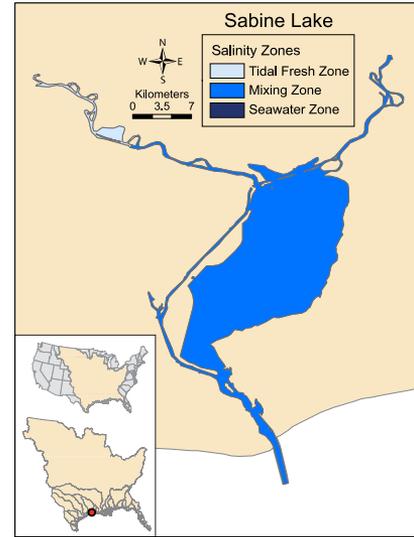
### Future Outlook

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



### 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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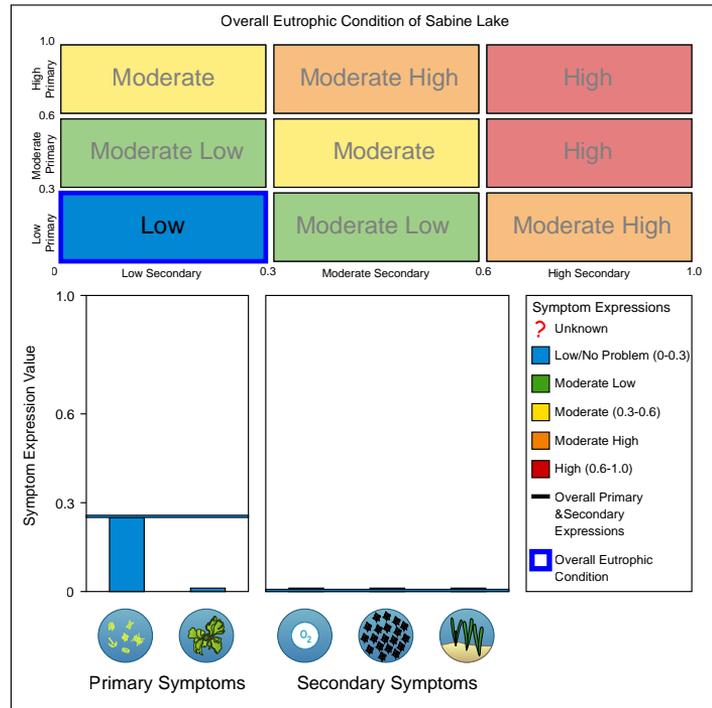
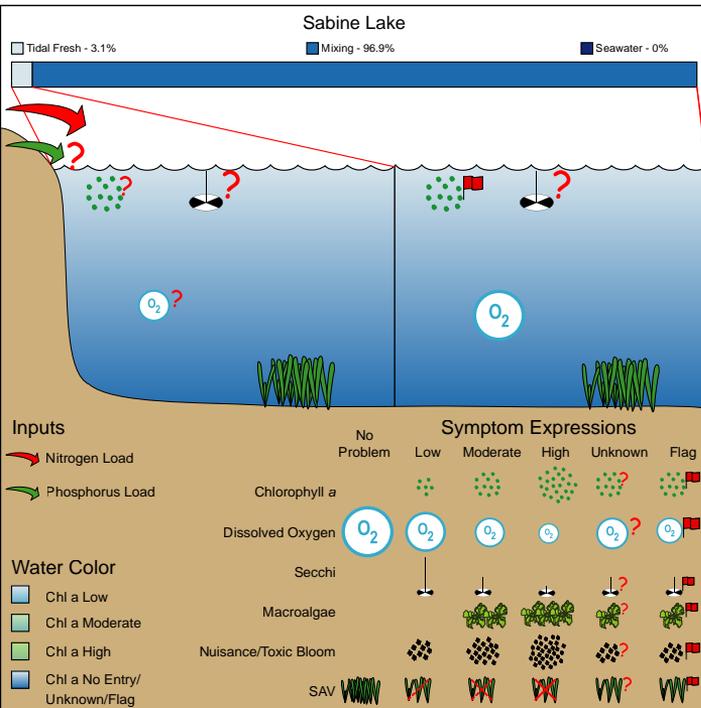
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High

## EUTROPHIC CONDITION



## WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km <sup>2</sup> )	265	Urban (km <sup>2</sup> )	2,606 (5%)	Area (km <sup>2</sup> )	53,674
Tidal fresh zone area (km <sup>2</sup> )	8	Agriculture (km <sup>2</sup> )	14,092 (27.1%)	Mean elevation (m)	86
Mixing zone area (km <sup>2</sup> )	257	Forest (km <sup>2</sup> )	33,274 (64%)	Max. elevation (m)	236
Saltwater zone area (km <sup>2</sup> )	0	Wetland (km <sup>2</sup> )	1,955 (3.8%)	Watershed: estuary ratio	202.5
Volume (1,000 x m <sup>3</sup> )	659,850	Range (km <sup>2</sup> )	73 (0.1%)	TSS (tonne y <sup>-1</sup> )	811,000
Depth (m)	2.49	Barren (km <sup>2</sup> )	0 (0%)	TN (kg y <sup>-1</sup> )	30,820,000
Tide Height (m)	0.47	Total (km <sup>2</sup> )	51,999 (0%)	DIP (kg y <sup>-1</sup> )	Unknown
Residence Time (d)	10	Population	1,230,500	TSS/est. area (tonne km <sup>-2</sup> y <sup>-1</sup> )	3,060
		Popn: est. area ratio	4,643	TN/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	116,302
				DIP/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	Unknown