

# Galveston Bay

## SUMMARY

Galveston Bay is characterized by high chlorophyll-a symptom expression due to persistent high concentrations over a large area. A moderate chl-a expression was recorded in 1999. Dissolved oxygen and macroalgae symptoms are reported as non-problematic. A very small loss of SAV was recorded in the seawater zone and a small gain the freshwater zone.

## Influencing Factors

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



## Future Outlook

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



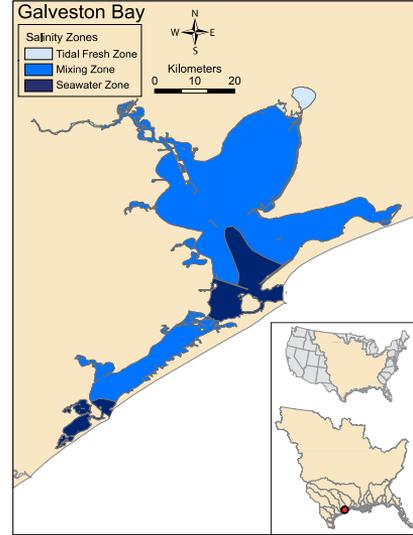
## Eutrophic Conditions \*\*

Primary symptoms beginning to indicate possible problems but still very few secondary symptoms expressed.



## 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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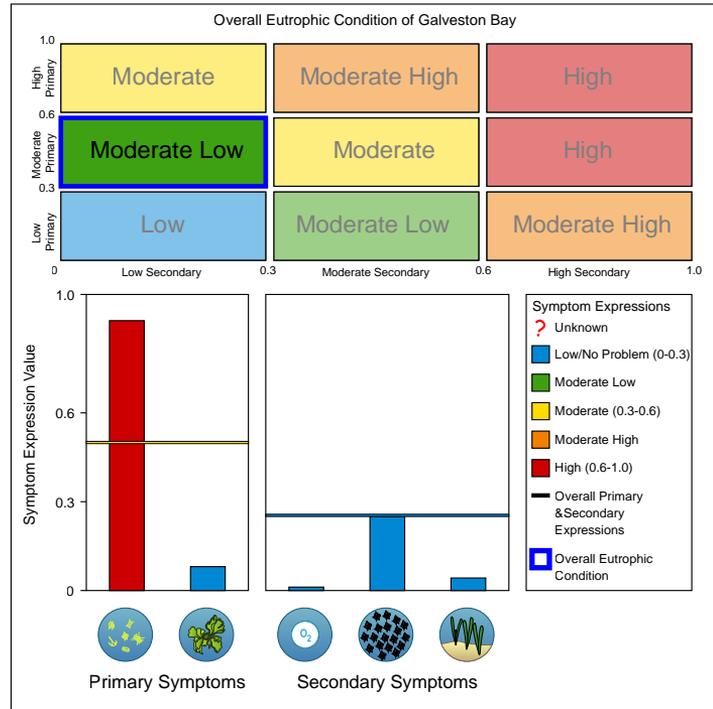
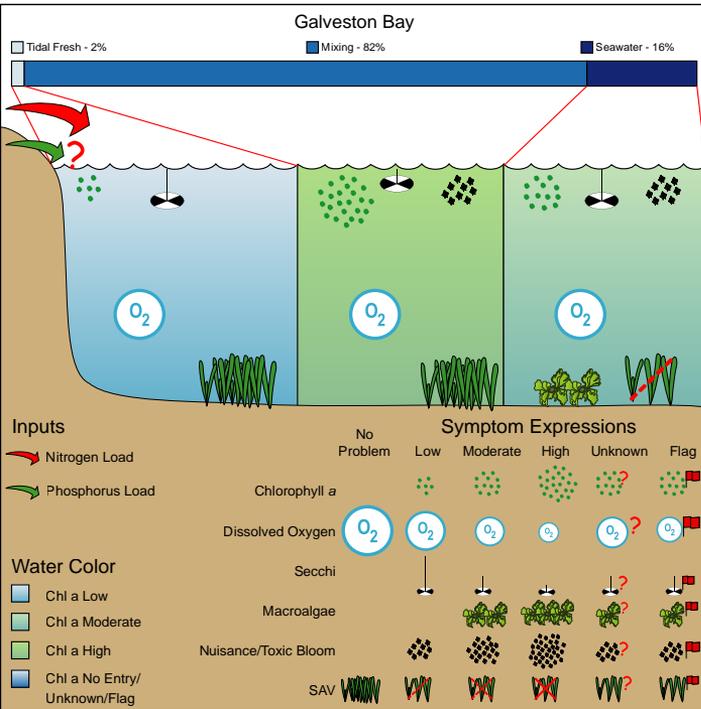
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High

## EUTROPHIC CONDITION



## WATERSHED AND ESTUARY CHARACTERISTICS

Estuary	Landuse / Population		Watershed Details / Input Loads		
Area (km <sup>2</sup> )	1,456	Urban (km <sup>2</sup> )	9,158 (15.2%)	Area (km <sup>2</sup> )	61,826
Tidal fresh zone area (km <sup>2</sup> )	29	Agriculture (km <sup>2</sup> )	29,505 (48.8%)	Mean elevation (m)	132
Mixing zone area (km <sup>2</sup> )	1,194	Forest (km <sup>2</sup> )	16,237 (26.9%)	Max. elevation (m)	426
Saltwater zone area (km <sup>2</sup> )	233	Wetland (km <sup>2</sup> )	1,101 (1.8%)	Watershed: estuary ratio	42.5
Volume (1,000 x m <sup>3</sup> )	2,242,240	Range (km <sup>2</sup> )	4,429 (7.3%)	TSS (tonne y <sup>-1</sup> )	1,030,000
Depth (m)	1.54	Barren (km <sup>2</sup> )	0 (0%)	TN (kg y <sup>-1</sup> )	70,010,000
Tide Height (m)	0.31	Total (km <sup>2</sup> )	60,430 (0%)	DIP (kg y <sup>-1</sup> )	Unknown
Residence Time (d)	15	Population	7,583,512	TSS/est. area (tonne km <sup>-2</sup> y <sup>-1</sup> )	707
		Popn: est. area ratio	5,209	TN/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	48,084
				DIP/est. area (kg km <sup>-2</sup> y <sup>-1</sup> )	Unknown