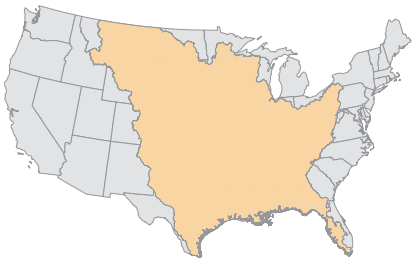
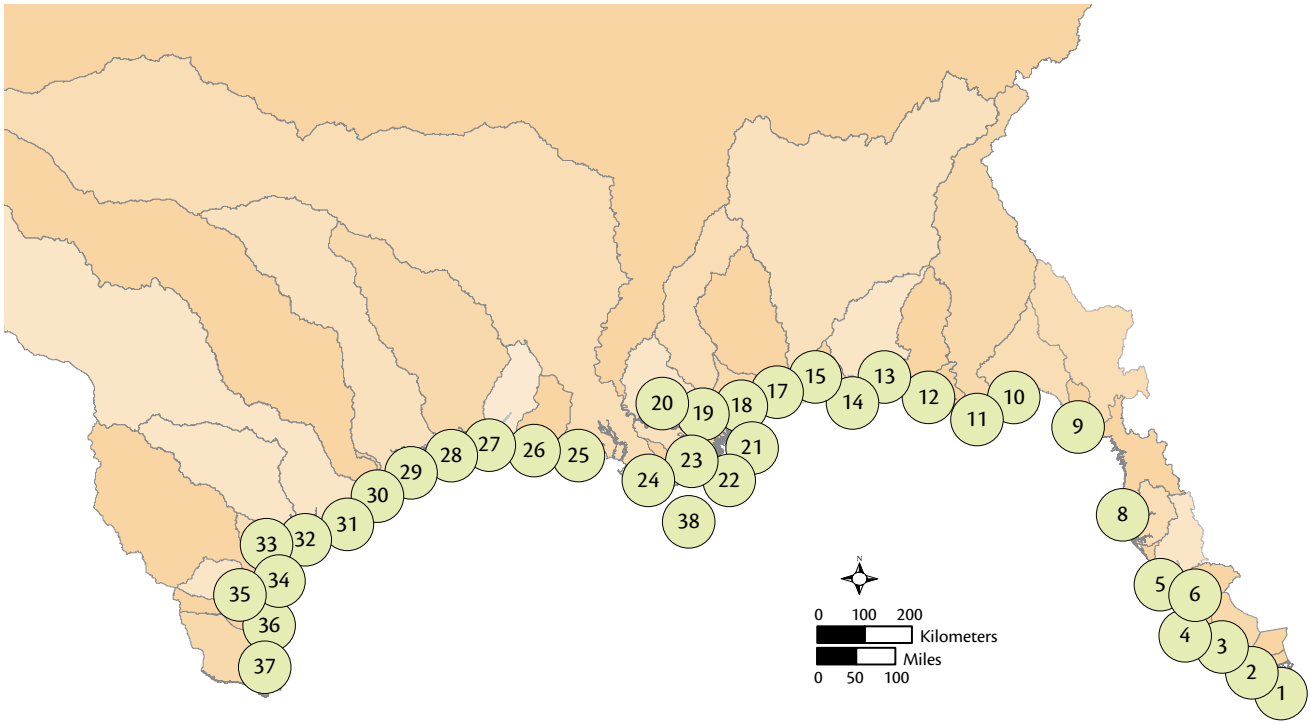


THE GULF OF MEXICO REGION



1. Florida Bay
2. S. Ten Thousand Islands
3. N. Ten Thousand Islands
4. Rookery Bay
5. Charlotte Harbor
6. Caloosahatchee River
7. Sarasota Bay
8. Tampa Bay
9. Suwannee River
10. Apalachee Bay
11. Apalachicola Bay
12. St. Andrew Bay
13. Choctawhatchee Bay
14. Pensacola Bay
15. Perdido Bay
16. Mobile Bay
17. East Mississippi Sound
18. West Mississippi Sound
19. Lake Borgne
20. Lake Pontchartrain
21. Breton/Chandeleur Sounds
22. Mississippi River
23. Barataria Bay
24. Terrebonne/Timbalier Bays
25. Atchafalaya/Vermilion Bays
26. Mermentau Estuary
27. Calcasieu Lake
28. Sabine Lake
29. Galveston Bay
30. Brazos River
31. Matagorda Bay
32. San Antonio Bay
33. Aransas Bay
34. Corpus Christi Bay
35. Upper Laguna Madre
36. Baffin Bay
37. Lower Laguna Madre
38. Mississippi/Atchafalaya Plume

Apalachee Bay

SUMMARY

Data were unavailable to assess the eutrophic condition of Apalachee Bay. In the 1999 assessment, the estuary was characterized by moderate low overall eutrophic conditions due to moderate chlorophyll-a and nuisance/toxic bloom frequency symptom expressions, and low dissolved oxygen symptom expression.

Influencing Factors

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

Eutrophic Conditions *

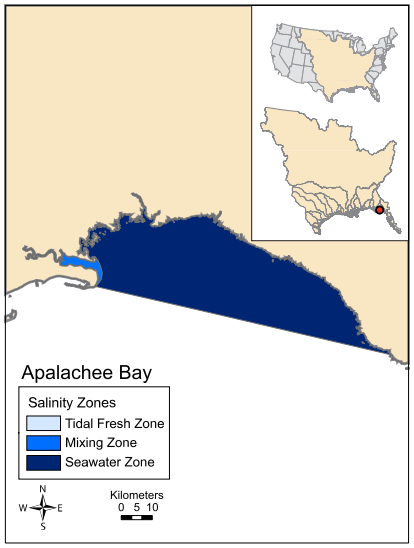
An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

ASSETS Rating

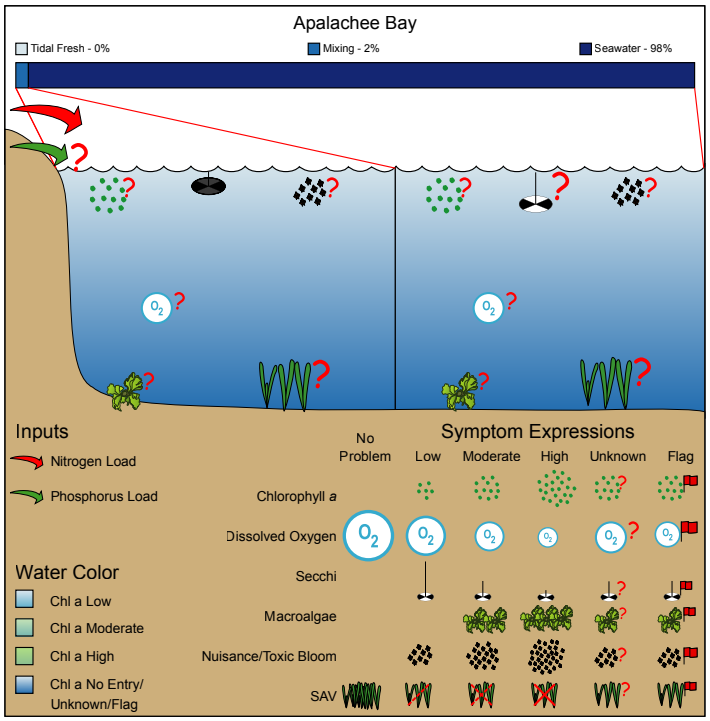
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

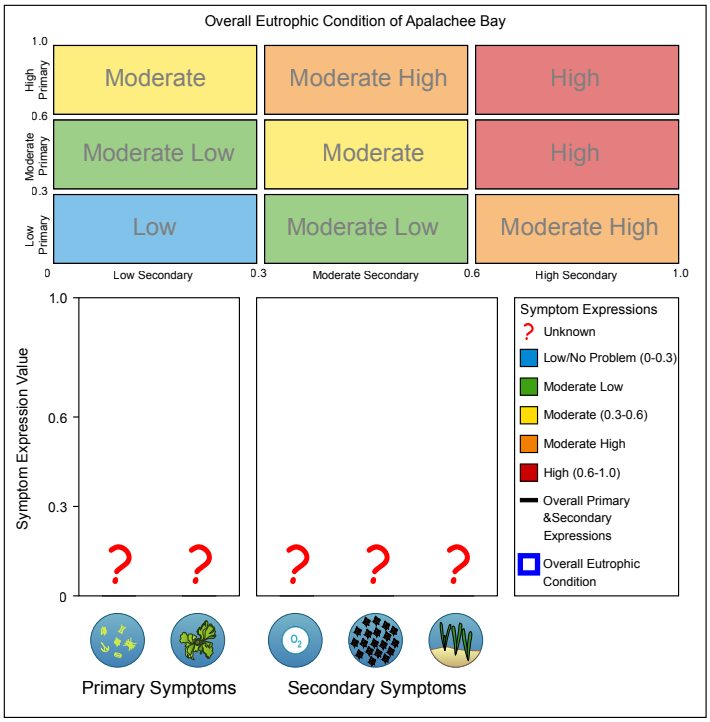


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,773	Urban (km^2)	544 (3.8%)	Area (km^2)	14,288
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	3,025 (21.4%)	Mean elevation (m)	40
Mixing zone area (km^2)	35	Forest (km^2)	8,599 (60.7%)	Max. elevation (m)	130
Saltwater zone area (km^2)	1,738	Wetland (km^2)	1,981 (14%)	Watershed: estuary ratio	8.1
Volume (1,000 x m^3)	3,404,160	Range (km^2)	13 (0.1%)	TSS (tonne y^{-1})	837,000
Depth (m)	1.92	Barren (km^2)	0 (0%)	TN (kg y^{-1})	6,080,000
Tide Height (m)	0.75	Total (km^2)	14,162 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	3	Population	352,196	TSS/est. area (tonne km^{-2} y^{-1})	472
		Popn: est. area ratio	199	TN/est. area (kg km^{-2} y^{-1})	3,429
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Apalachicola Bay

SUMMARY

Apalachicola River flow typically varies over an order of magnitude throughout the year and has significant inter-annual variability. It is therefore difficult to accurately assign an overall eutrophication rating. Chlorophyll-a concentrations and nuisance/toxic blooms are moderate and dissolved oxygen levels are healthy.

Influencing Factors

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

Eutrophic Conditions **

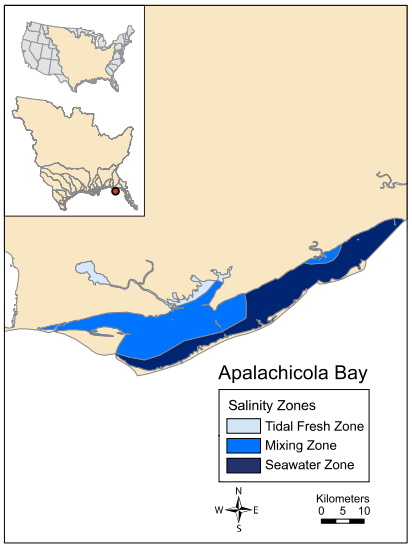
Level of expression of eutrophic conditions is substantial.

Future Outlook

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

ASSETS Rating

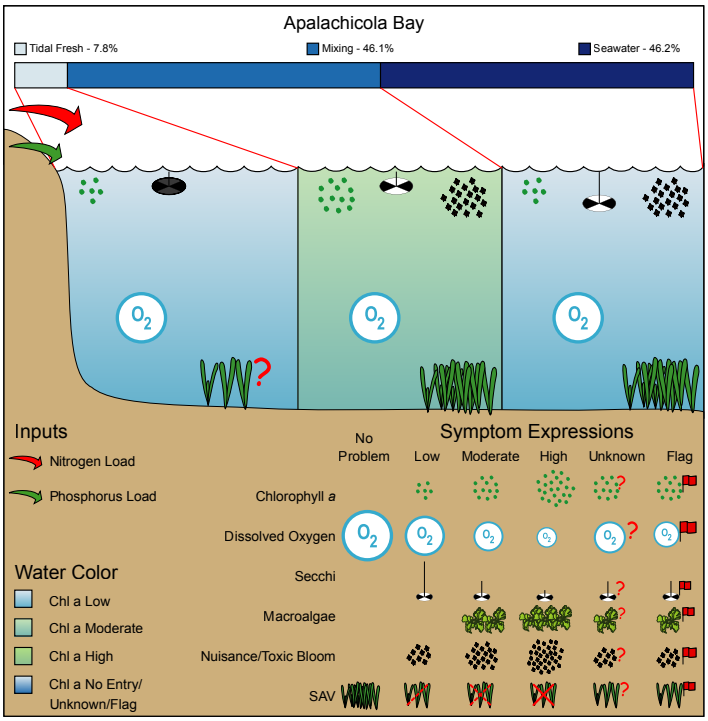
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

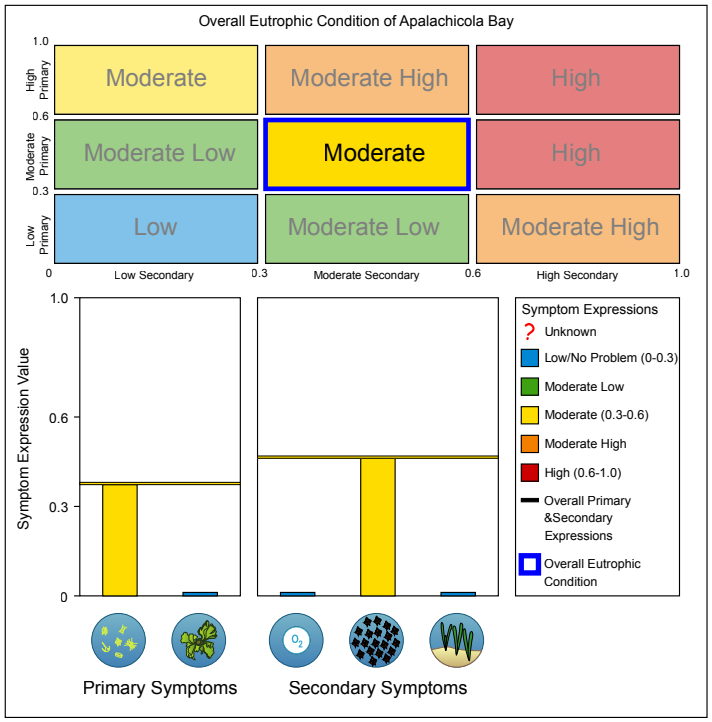


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





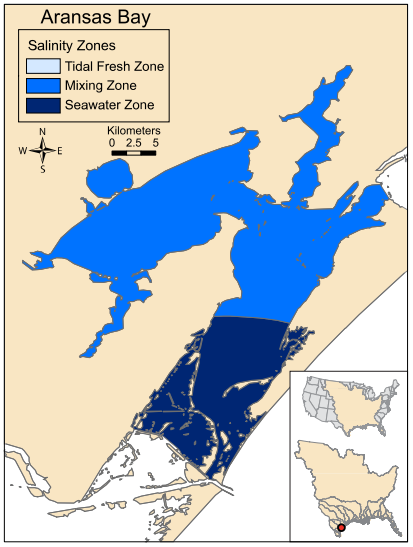
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	593	Urban (km^2)	3,675 (7.1%)	Area (km^2)	52,214
Tidal fresh zone area (km^2)	46	Agriculture (km^2)	14,957 (29.1%)	Mean elevation (m)	148
Mixing zone area (km^2)	273	Forest (km^2)	30,008 (58.3%)	Max. elevation (m)	1,250
Saltwater zone area (km^2)	274	Wetland (km^2)	2,821 (5.5%)	Watershed: estuary ratio	88.1
Volume (1,000 x m^3)	1,073,330	Range (km^2)	23 (0%)	TSS (tonne y^{-1})	127,000
Depth (m)	1.81	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	7,884,860
Tide Height (m)	0.58	Total (km^2)	51,484 (0%)	DIP (kg y^{-1})	96,190
Residence Time (d)	4	Population	2,738,086	TSS/est. area (tonne km^{-2} y^{-1})	214
		Popn: est. area ratio	4,617	DIN/est. area (kg km^{-2} y^{-1})	13,297
				DIP/est. area (kg km^{-2} y^{-1})	162

Aransas Bay

SUMMARY

Insufficient data were available to assess the eutrophic condition of Aransas Bay. However, chlorophyll-a symptom condition in the mixing zone (71% of the Bay's area) is high, suggesting eutrophication, or at least the beginning stages, may be a problem.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

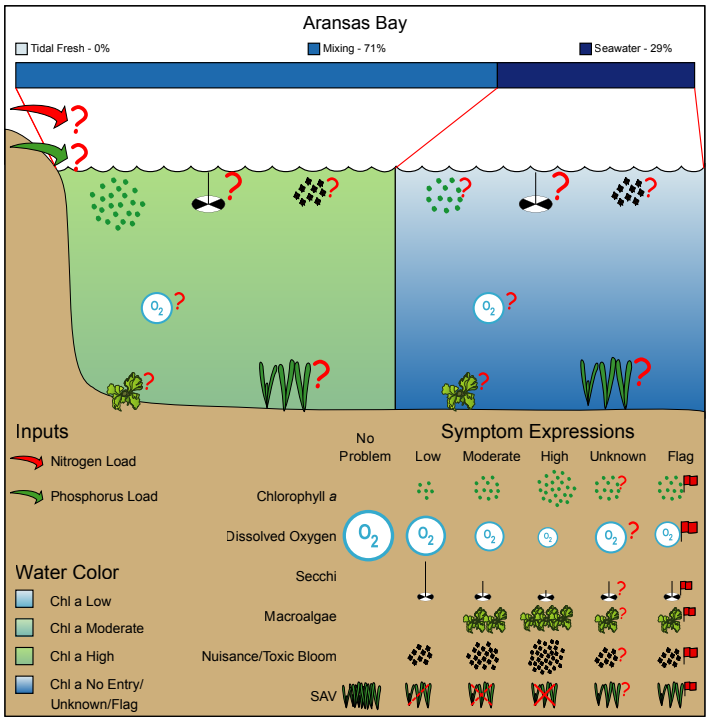
ASSETS Rating

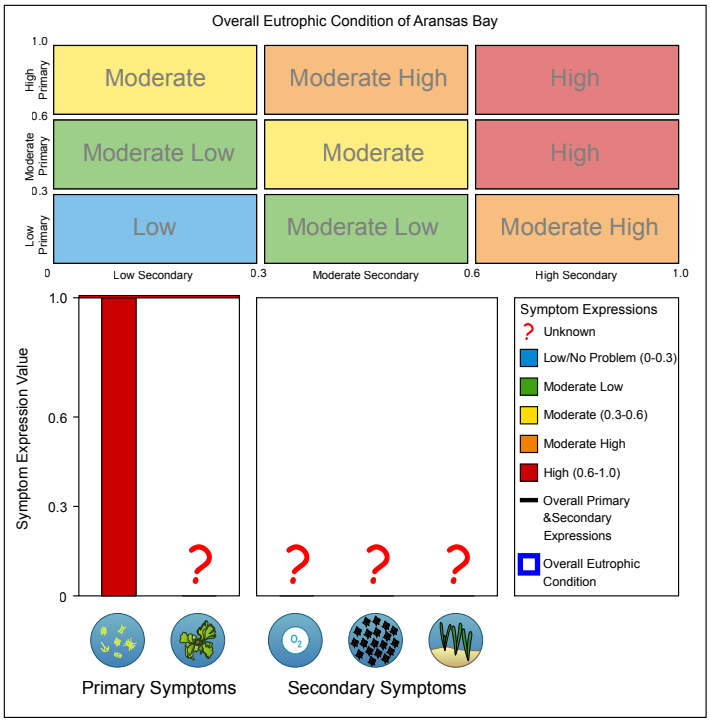
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	524	Urban (km^2)	262 (4.1%)	Area (km^2)	6,420
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	2,178 (34.2%)	Mean elevation (m)	38
Mixing zone area (km^2)	372	Forest (km^2)	1,875 (29.5%)	Max. elevation (m)	156
Saltwater zone area (km^2)	152	Wetland (km^2)	238 (3.7%)	Watershed: estuary ratio	12.3
Volume (1,000 x m^3)	513,520	Range (km^2)	1,810 (28.4%)	TSS (tonne y^{-1})	419,000
Depth (m)	0.98	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.23	Total (km^2)	6,364 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	18	Population	76,928	TSS/est. area (tonne km^{-2} y^{-1})	800
		Popn: est. area ratio	147	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Atchafalaya/Vermilion Bays

SUMMARY

Limited data were available to assess the eutrophic condition of the Atchafalaya/Vermilion Bays. However, dissolved oxygen concentrations in the mixing zone (59% of total area) indicate that there is no problem for this symptom. In 1999, chlorophyll-a symptom expression was considered high (data were not available for 2004).

Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

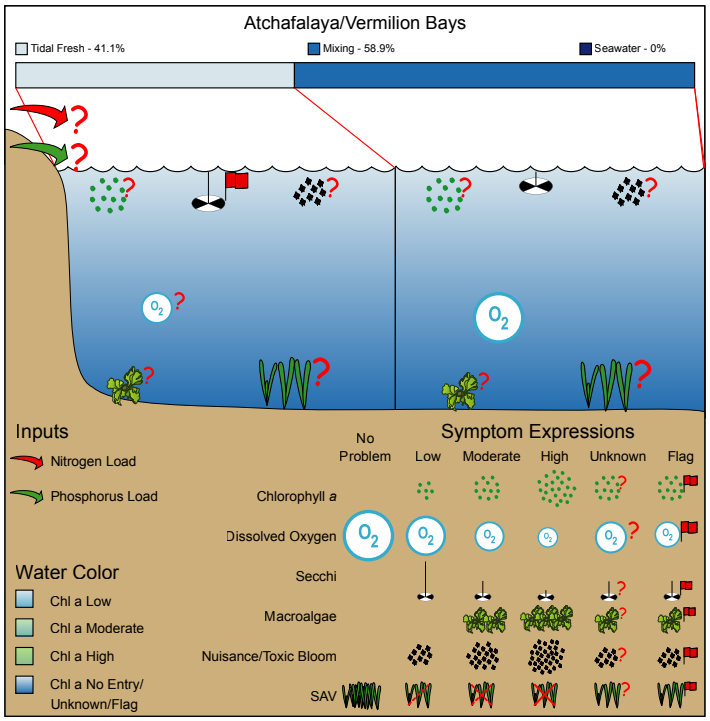
ASSETS Rating

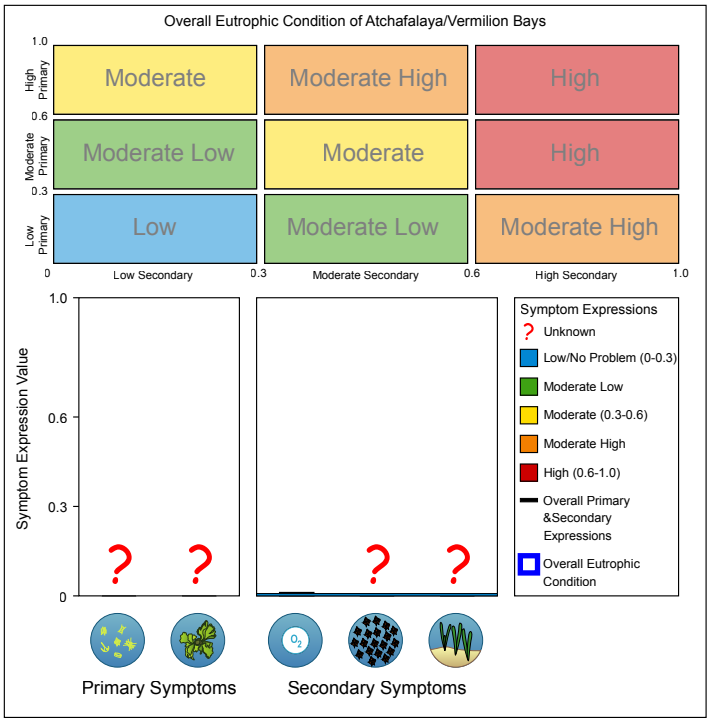
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





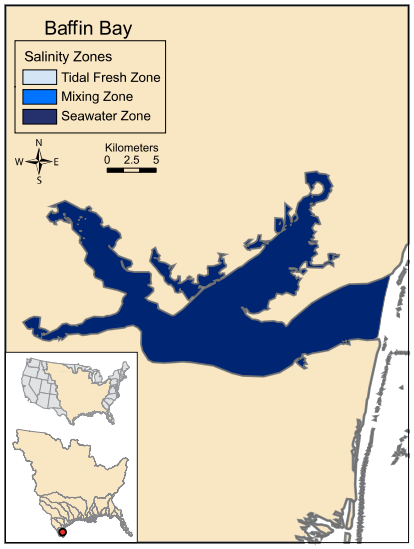
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	2,227	Urban (km^2)	7,324 (2.9%)	Area (km^2)	259,659
Tidal fresh zone area (km^2)	915	Agriculture (km^2)	107,246 (41.9%)	Mean elevation (m)	292
Mixing zone area (km^2)	1,312	Forest (km^2)	84,485 (33%)	Max. elevation (m)	1,512
Saltwater zone area (km^2)	0	Wetland (km^2)	14,564 (5.7%)	Watershed: estuary ratio	116.6
Volume (1,000 x m^3)	2,672,400	Range (km^2)	42,289 (16.5%)	TSS (tonne y^{-1})	1,960,000
Depth (m)	1.20	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.51	Total (km^2)	255,909 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	2	Population	3,523,821	TSS/est. area (tonne km^{-2} y^{-1})	880
		Popn: est. area ratio	1,582	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Baffin Bay

SUMMARY

Data were unavailable to assess the eutrophic condition of Baffin Bay. In the 1999 assessment, the bay was characterized by a high overall eutrophic condition rating and high symptom expressions for chlorophyll-a and nuisance/toxic blooms.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

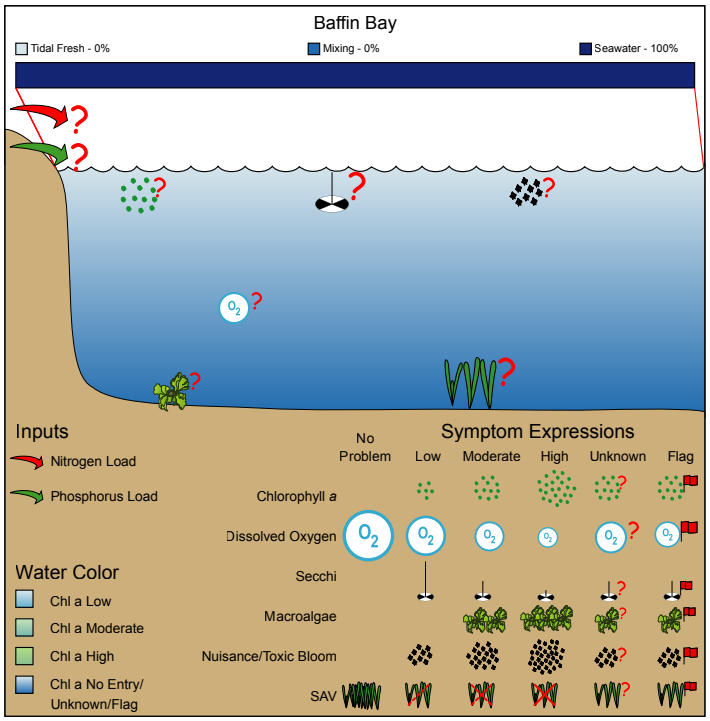
ASSETS Rating

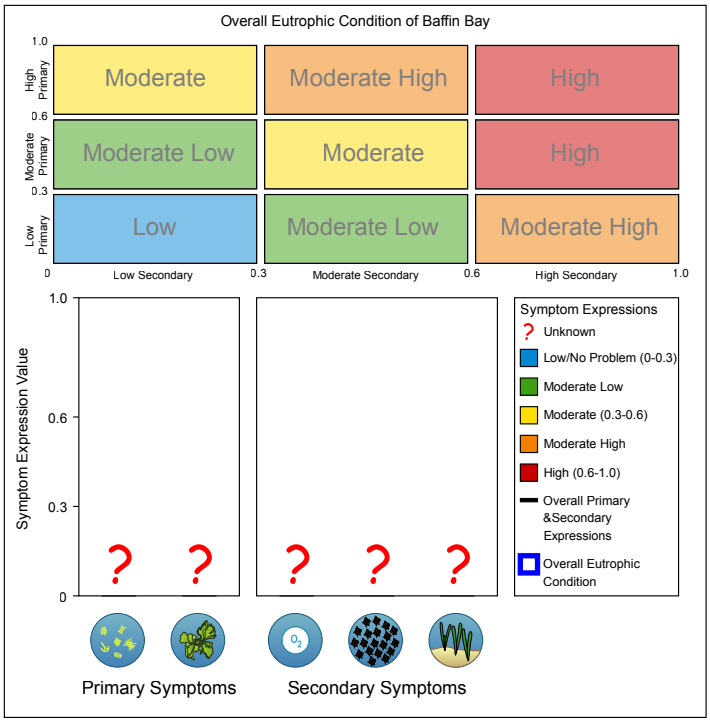
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





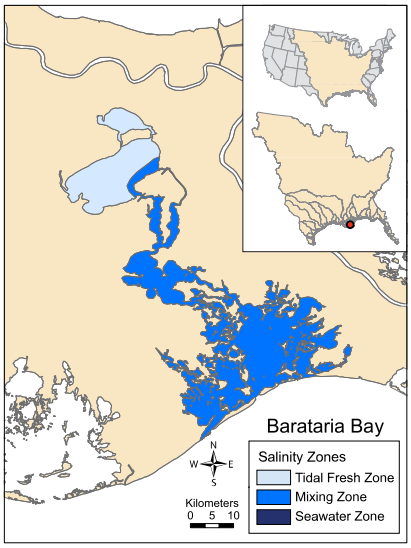
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	239	Urban (km^2)	114 (1.3%)	Area (km^2)	8,535
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	2,743 (32.2%)	Mean elevation (m)	78
Mixing zone area (km^2)	0	Forest (km^2)	106 (1.2%)	Max. elevation (m)	274
Saltwater zone area (km^2)	239	Wetland (km^2)	98 (1.2%)	Watershed: estuary ratio	35.7
Volume (1,000 x m^3)	136,230	Range (km^2)	5,449 (64%)	TSS (tonne y^{-1})	678,000
Depth (m)	0.57	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.06	Total (km^2)	8,511 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	103	Population	75,842	TSS/est. area (tonne km^{-2} y^{-1})	2,837
		Popn: est. area ratio	317	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Barataria Bay

SUMMARY

Barataria Bay is characterized by high chlorophyll-a symptom expression and episodic nuisance/toxic blooms in the mixing zone. High chlorophyll-a symptom expression was also recorded in the 1999 assessment, while nuisance/toxic blooms in the mixing zone were unknown in 1999. Symptom expression for other indicators in 2004 is unknown.



Influencing Factors

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

Eutrophic Conditions *

Primary symptoms high and substantial secondary symptoms becoming more expressed, indicating potentially serious problems.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

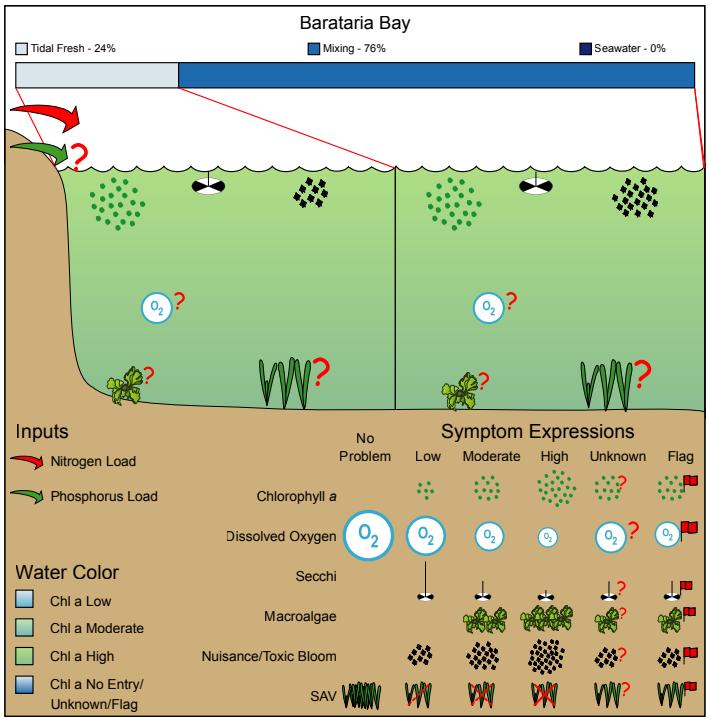
ASSETS Rating

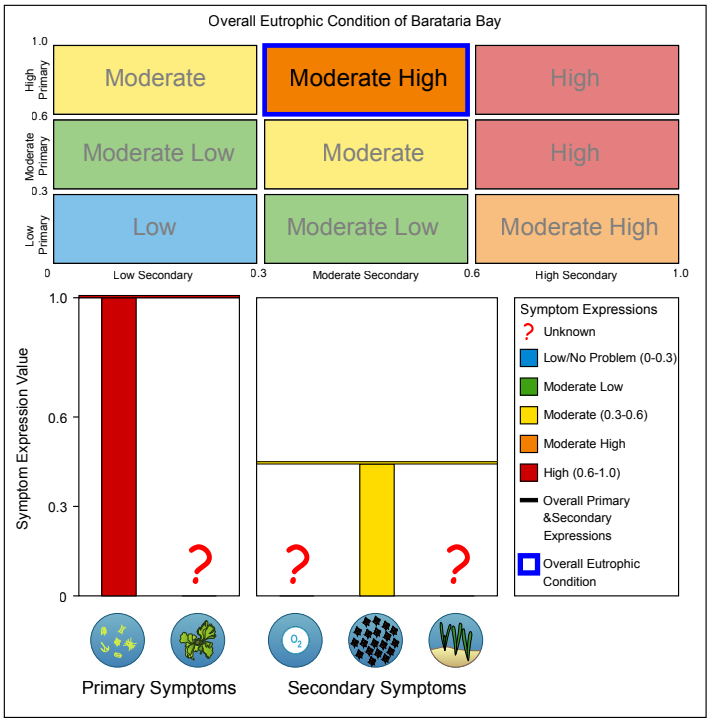
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





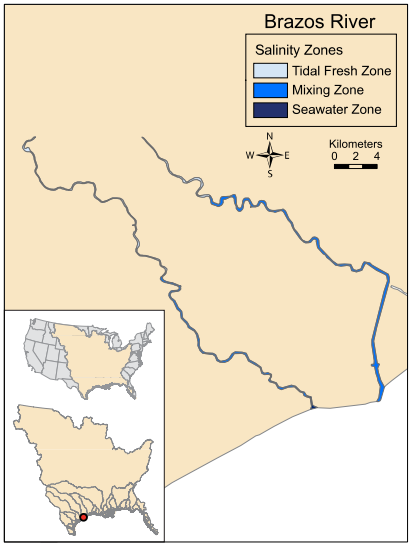
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	852	Urban (km^2)	373 (8.7%)	Area (km^2)	4,783
Tidal fresh zone area (km^2)	204	Agriculture (km^2)	699 (16.3%)	Mean elevation (m)	0
Mixing zone area (km^2)	648	Forest (km^2)	13 (0.3%)	Max. elevation (m)	10
Saltwater zone area (km^2)	0	Wetland (km^2)	3,209 (74.7%)	Watershed: estuary ratio	5.6
Volume (1,000 x m^3)	357,840	Range (km^2)	0 (0%)	TSS (tonne y^{-1})	44,700
Depth (m)	0.42	Barren (km^2)	0 (0%)	TN (kg y^{-1})	3,460,000
Tide Height (m)	0.32	Total (km^2)	4,294 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	2	Population	244,409	TSS/est. area (tonne km^{-2} y^{-1})	53
		Popn: est. area ratio	287	TN/est. area (kg km^{-2} y^{-1})	4,061
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Brazos River

SUMMARY

Limited data wwere available to assess the eutrophic condition of Brazos River. However, chlorophyll-a symptom expression in the mixing zone (72% of the River?s area) was high, having increased since the 1999 assessment when symptom expression was moderate. Symptom expression for other indicators in 2004 is unknown.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

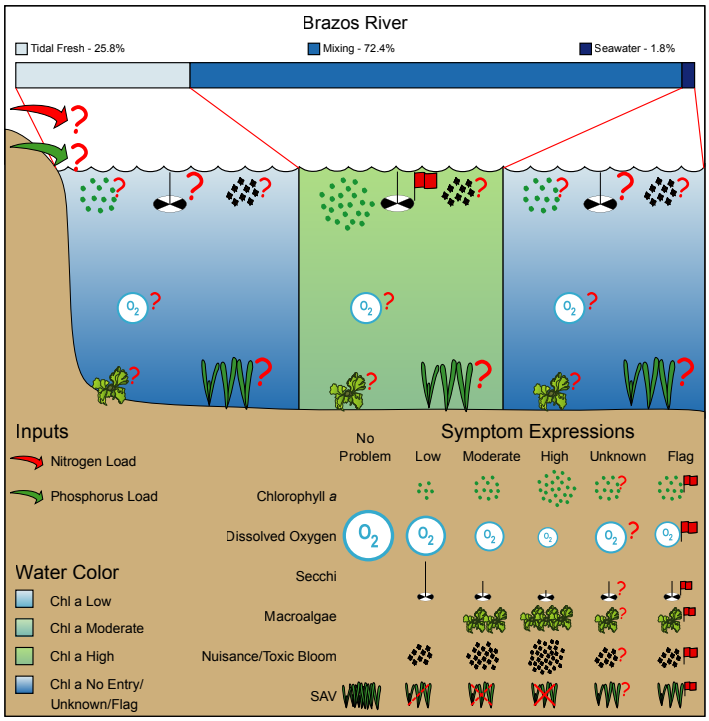
ASSETS Rating

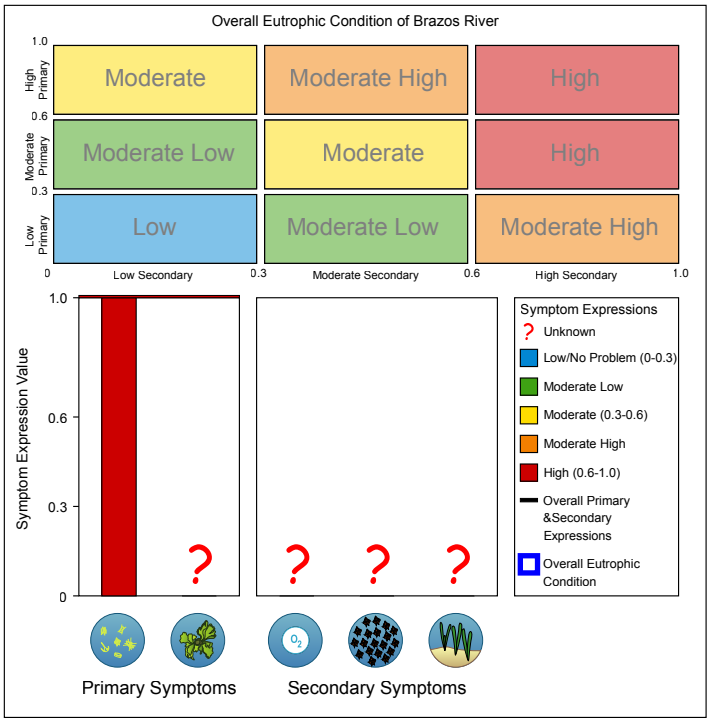
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





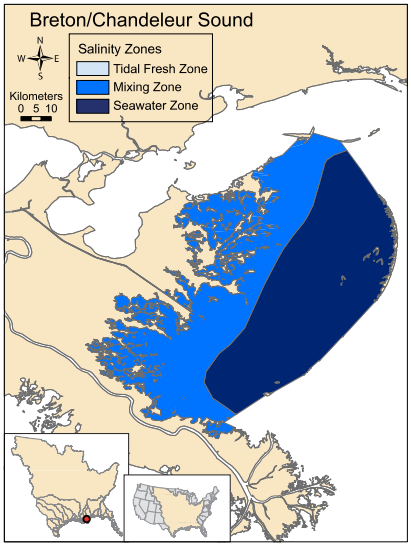
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	12	Urban (km^2)	3,452 (2.9%)	Area (km^2)	121,264
Tidal fresh zone area (km^2)	3	Agriculture (km^2)	64,491 (53.5%)	Mean elevation (m)	511
Mixing zone area (km^2)	9	Forest (km^2)	10,702 (8.9%)	Max. elevation (m)	1,449
Saltwater zone area (km^2)	<1	Wetland (km^2)	482 (0.4%)	Watershed: estuary ratio	10,105.3
Volume (1,000 x m^3)	55,440	Range (km^2)	41,354 (34.3%)	TSS (tonne y^{-1})	724,000
Depth (m)	4.62	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.15	Total (km^2)	120,481 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	3	Population	1,869,130	TSS/est. area (tonne km^{-2} y^{-1})	60,333
		Popn: est. area ratio	155,761	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Breton/Chandeleur Sound

SUMMARY

Limited data were available to assess the eutrophic condition of Breton/Chandeleur Sound. However, in the mixing zone (51% of the Bay?s area) chlorophyll-a symptom expression is high and nuisance/toxic bloom symptoms are low (episodic occurrence of variable duration). Symptom expressions for other indicators in 2004 are unknown.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

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 are likely to substantially worsen.

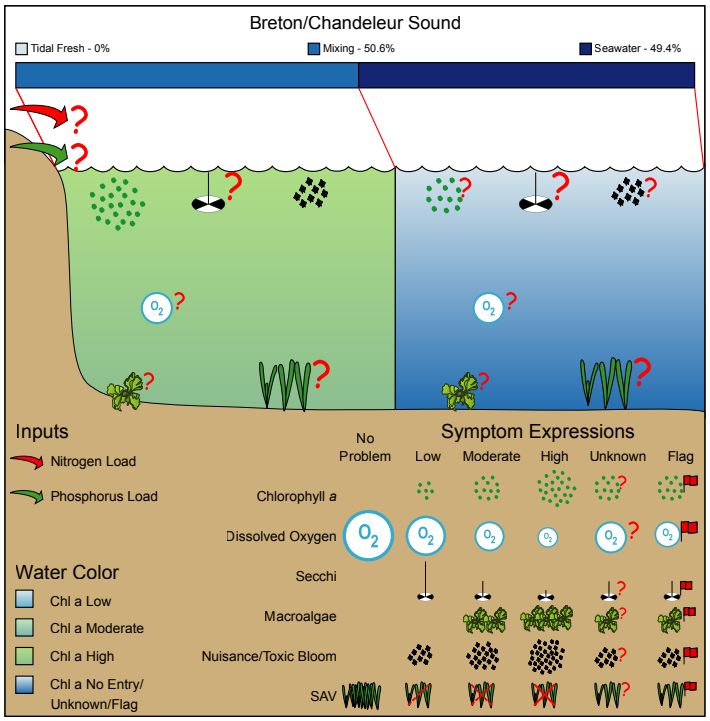
ASSETS Rating

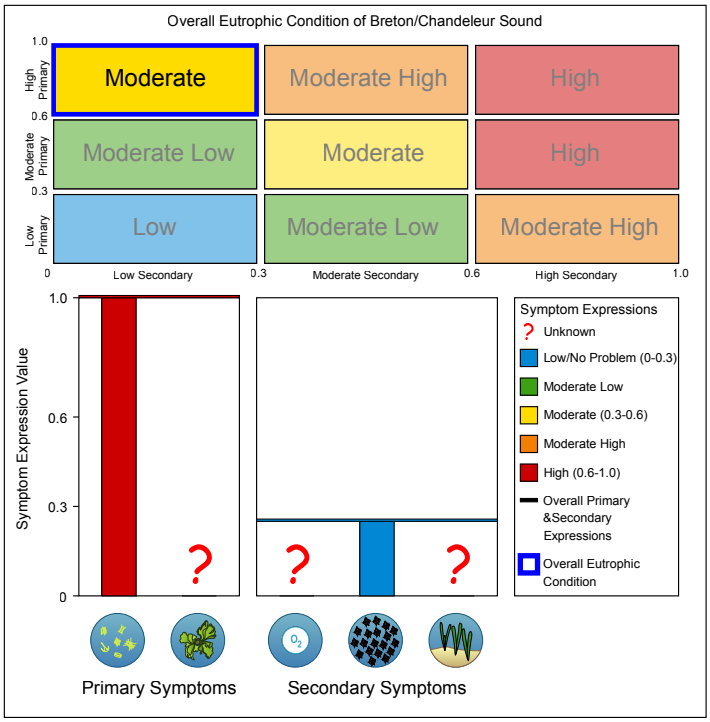
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	4,301	Urban (km^2)	98 (6%)	Area (km^2)	2,150
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	18 (1.1%)	Mean elevation (m)	0
Mixing zone area (km^2)	2,176	Forest (km^2)	36 (2.2%)	Max. elevation (m)	6
Saltwater zone area (km^2)	2,125	Wetland (km^2)	1,489 (90.7%)	Watershed: estuary ratio	0.5
Volume (1,000 x m^3)	11,741,730	Range (km^2)	0 (0%)	TSS (tonne y^{-1})	23,200
Depth (m)	2.73	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.41	Total (km^2)	1,642 (0%)	TP (kg y^{-1})	Unknown
Residence Time (d)	44	Population	50,456	TSS/est. area (tonne km^{-2} y^{-1})	5
		Popn: est. area ratio	12	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				TP/est. area (kg km^{-2} y^{-1})	Unknown

Calcasieu Lake

SUMMARY

Limited data were available to assess the eutrophic condition of Calcasieu Lake. However, dissolved oxygen symptom expression in the mixing zone (99% of the Lake?s area) was recorded as low. In 1999, dissolved oxygen expression was considered moderate and chlorophyll-a expression was high.

Influencing Factors

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

Eutrophic Conditions *

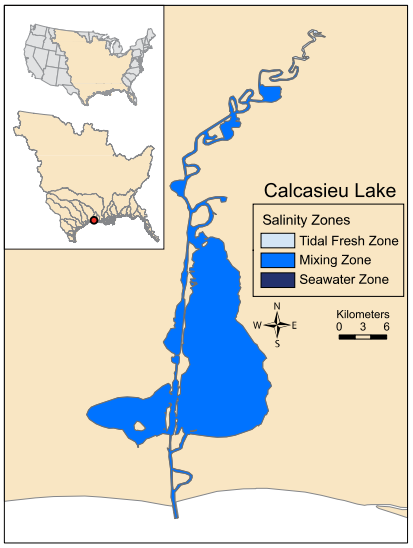
An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

ASSETS Rating

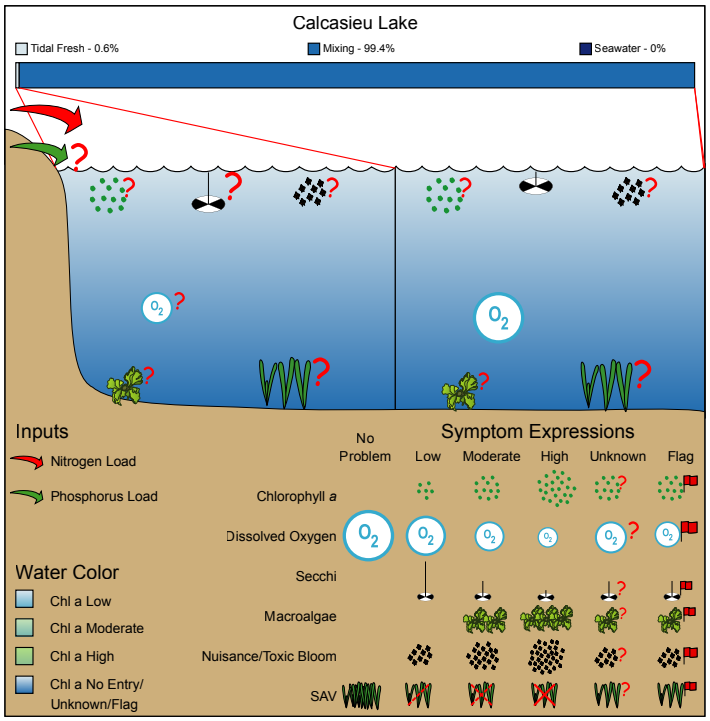
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

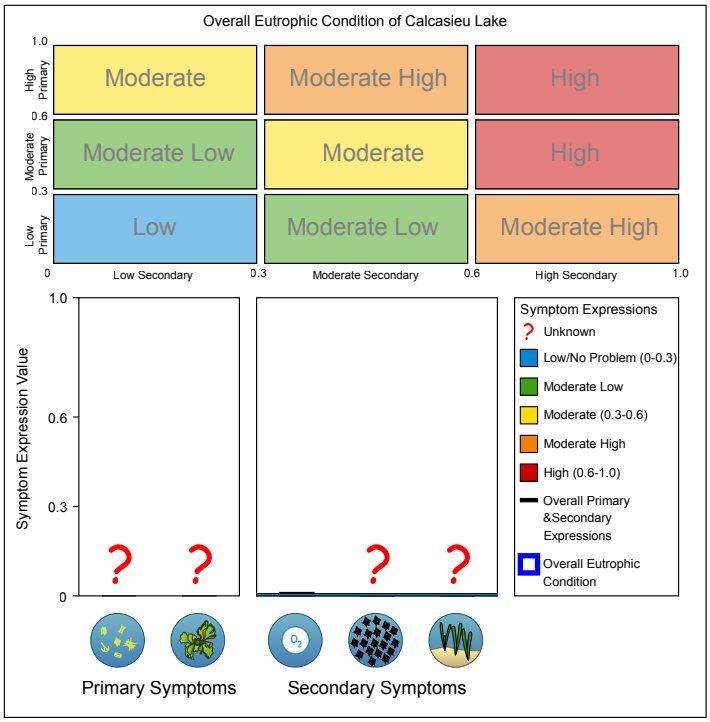


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





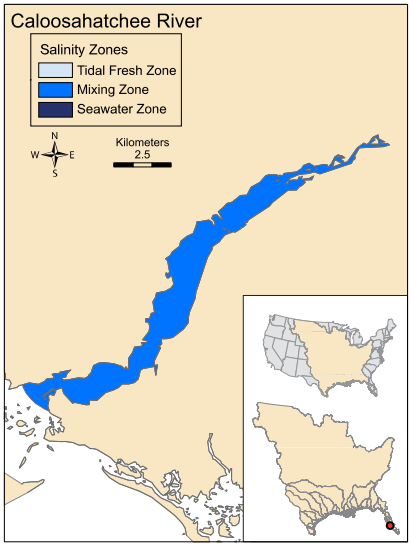
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	260	Urban (km^2)	603 (5.7%)	Area (km^2)	10,866
Tidal fresh zone area (km^2)	2	Agriculture (km^2)	2,909 (27.5%)	Mean elevation (m)	31
Mixing zone area (km^2)	258	Forest (km^2)	5,455 (51.6%)	Max. elevation (m)	126
Saltwater zone area (km^2)	0	Wetland (km^2)	1,513 (14.3%)	Watershed: estuary ratio	41.8
Volume (1,000 x m^3)	312,000	Range (km^2)	96 (0.9%)	TSS (tonne y^{-1})	198,000
Depth (m)	1.20	Barren (km^2)	0 (0%)	TN (kg y^{-1})	6,400,000
Tide Height (m)	0.61	Total (km^2)	10,575 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	4	Population	243,451	TSS/est. area (tonne km^{-2} y^{-1})	762
		Popn: est. area ratio	936	TN/est. area (kg km^{-2} y^{-1})	24,615
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Caloosahatchee River

SUMMARY

Water body conditions leading to the Caloosahatchee River's overall eutrophic condition rating of moderate include high chlorophyll-a expression and moderate macroalgae blooms. Macroalgae was not considered a problem in 1999. Recent SAV loss in the River has been attributed to salinity and light limitation from colored organic matter.



Influencing Factors

Moderate to high nitrogen input and moderate to high susceptibility (low ability for dilution and flushing of 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 are likely to substantially worsen.

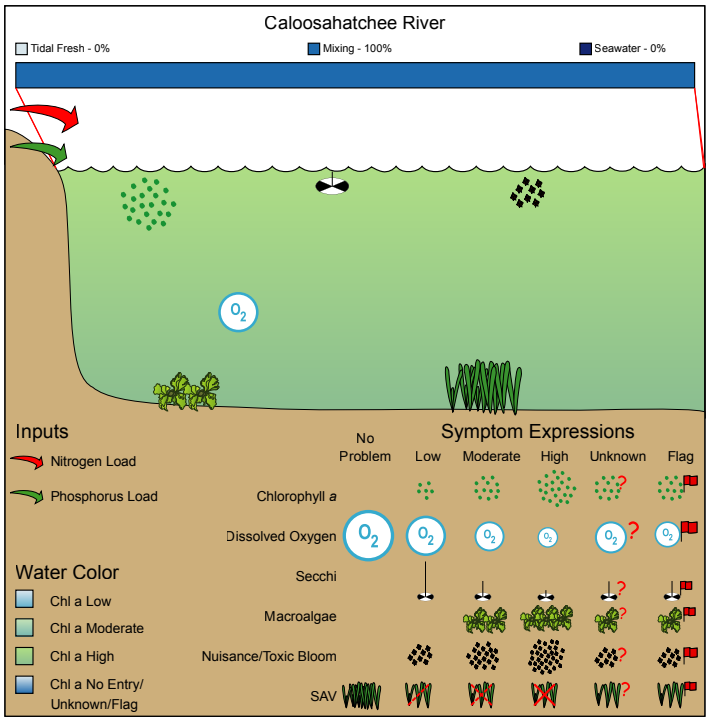
ASSETS Rating

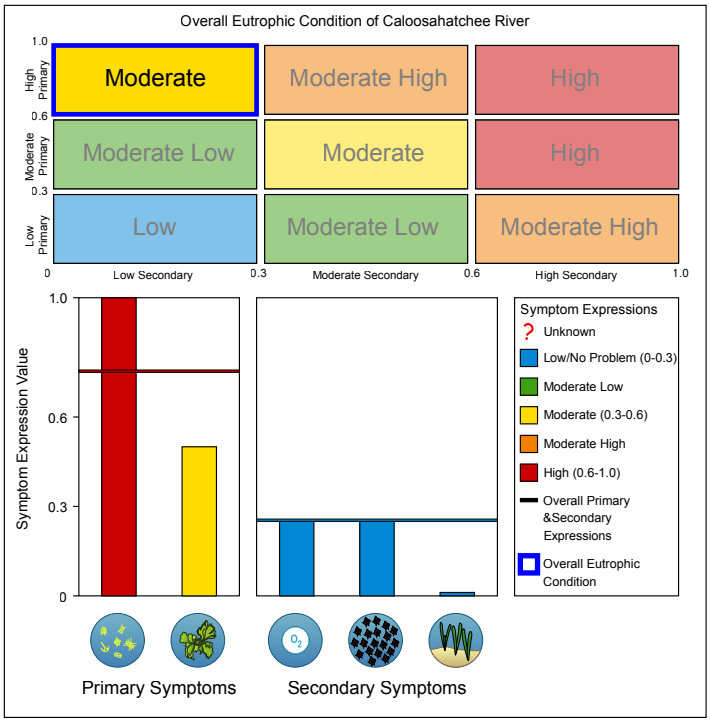
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	67	Urban (km^2)	420 (11.9%)	Area (km^2)	3,558
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	995 (28.2%)	Mean elevation (m)	9
Mixing zone area (km^2)	67	Forest (km^2)	319 (9%)	Max. elevation (m)	22
Saltwater zone area (km^2)	0	Wetland (km^2)	508 (14.4%)	Watershed: estuary ratio	53.1
Volume (1,000 x m^3)	125,960	Range (km^2)	1,292 (36.6%)	TSS (tonne y^{-1})	139,000
Depth (m)	1.88	Barren (km^2)	0 (0%)	TN (kg y^{-1})	2,793,000
Tide Height (m)	0.33	Total (km^2)	3,533 (0%)	TP (kg y^{-1})	229,000
Residence Time (d)	11	Population	200,572	TSS/est. area (tonne km^{-2} y^{-1})	2,075
		Popn: est. area ratio	2,994	TN/est. area (kg km^{-2} y^{-1})	41,687
				TP/est. area (kg km^{-2} y^{-1})	3,418

Charlotte Harbor

SUMMARY

The overall eutrophic condition of Charlotte Harbor is moderate but no change can be determined since the 1999 assessment. Water body conditions leading to this rating include high primary symptom expressions and low secondary symptom expression. Conditions are expected to worsen in the future due to land use conversions to row crops or urban.

Influencing Factors

Moderate to high nitrogen input and moderate to high susceptibility (low ability for dilution and flushing of 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 are likely to substantially worsen.

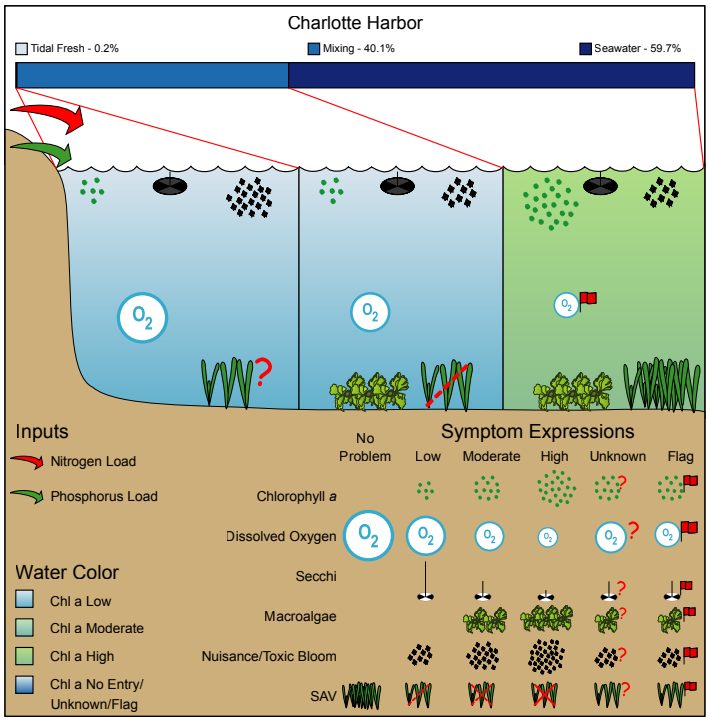
ASSETS Rating

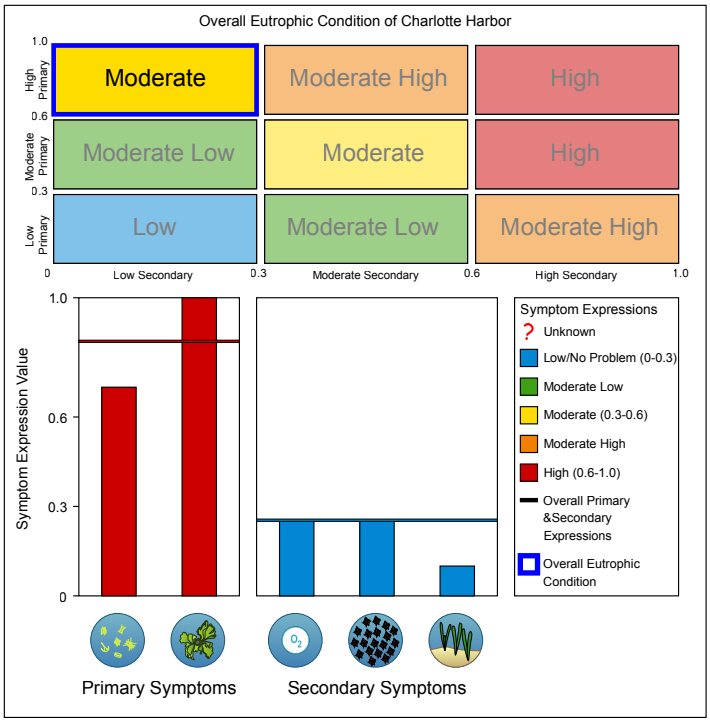
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





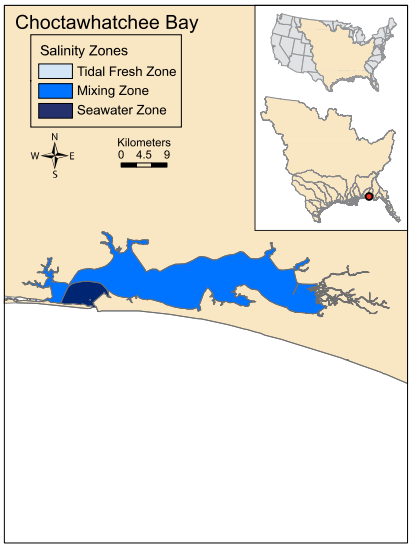
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	502	Urban (km^2)	1,412 (12.3%)	Area (km^2)	8,134
Tidal fresh zone area (km^2)	1	Agriculture (km^2)	4,038 (35.3%)	Mean elevation (m)	22
Mixing zone area (km^2)	201	Forest (km^2)	785 (6.9%)	Max. elevation (m)	75
Saltwater zone area (km^2)	300	Wetland (km^2)	1,588 (13.9%)	Watershed: estuary ratio	16.2
Volume (1,000 x m^3)	818,260	Range (km^2)	3,626 (31.7%)	TSS (tonne y^{-1})	140,000
Depth (m)	1.63	Barren (km^2)	0 (0%)	TN (kg y^{-1})	8,232,825
Tide Height (m)	0.65	Total (km^2)	11,448 (0%)	TP (kg y^{-1})	603,776
Residence Time (d)	3	Population	397,072	TSS/est. area (tonne km^{-2} y^{-1})	279
		Popn: est. area ratio	791	TN/est. area (kg km^{-2} y^{-1})	16,400
				TP/est. area (kg km^{-2} y^{-1})	1,203

Choctawhatchee Bay

SUMMARY

Though only chlorophyll-a and dissolved oxygen data were available for Choctawhatchee Bay, both symptom expressions are low, suggesting that eutrophication may not be a problem. Chlorophyll-a symptom expression has improved since 1999. However, population increases, stormwater runoff, and Karenia brevis blooms may contribute to extended fish kills.

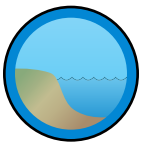


Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

Level of expression of eutrophic conditions is minimal.



Future Outlook

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

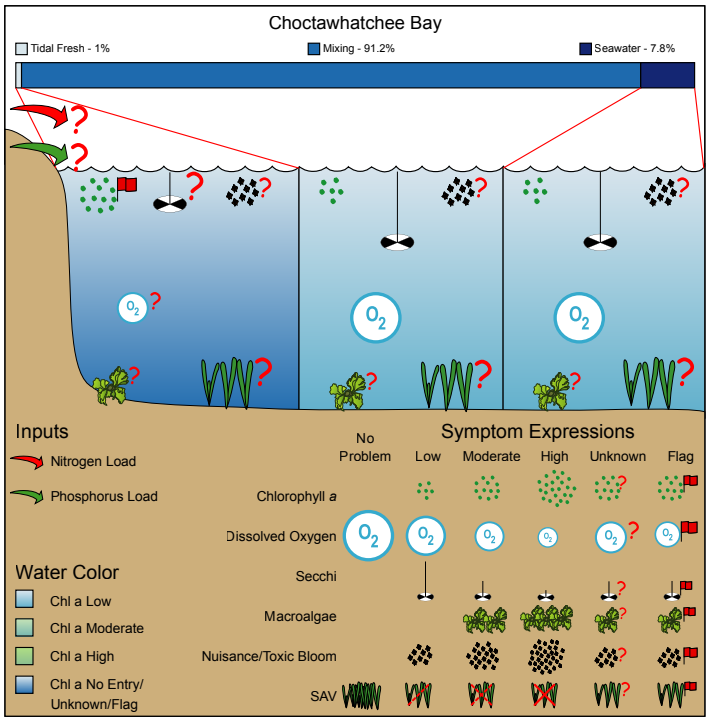
ASSETS Rating

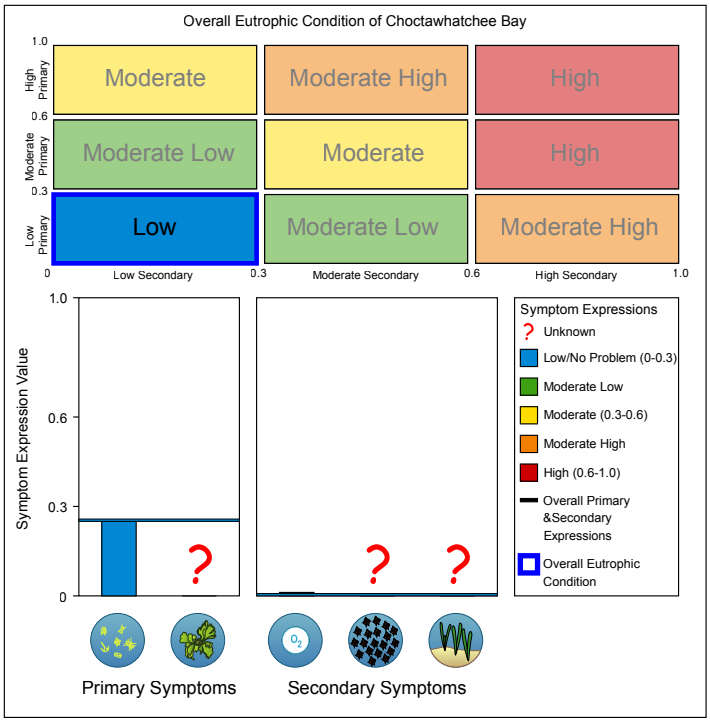
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





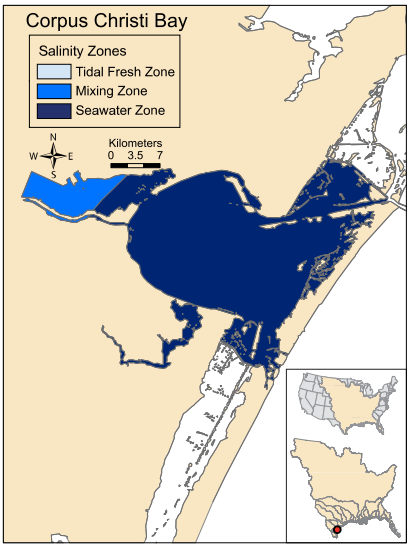
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	340	Urban (km^2)	635 (4.7%)	Area (km^2)	13,496
Tidal fresh zone area (km^2)	3	Agriculture (km^2)	4,359 (32.5%)	Mean elevation (m)	78
Mixing zone area (km^2)	310	Forest (km^2)	7,664 (57.2%)	Max. elevation (m)	199
Saltwater zone area (km^2)	27	Wetland (km^2)	746 (5.6%)	Watershed: estuary ratio	39.7
Volume (1,000 x m^3)	1,292,000	Range (km^2)	3 (0%)	TSS (tonne y^{-1})	640,000
Depth (m)	3.80	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.15	Total (km^2)	13,406 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	59	Population	324,467	TSS/est. area (tonne km^{-2} y^{-1})	1,882
		Popn: est. area ratio	954	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Corpus Christi Bay

SUMMARY

Corpus Christi Bay is characterized by high chlorophyll-a and macroalgae symptom expressions. Macroalgae symptoms appear to be localized to Redfish Bay area. The Bay also experiences episodic nuisance/toxic blooms. Dissolved oxygen concentrations and changes in SAV cover are unknown.



Influencing Factors

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

Eutrophic Conditions *

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

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

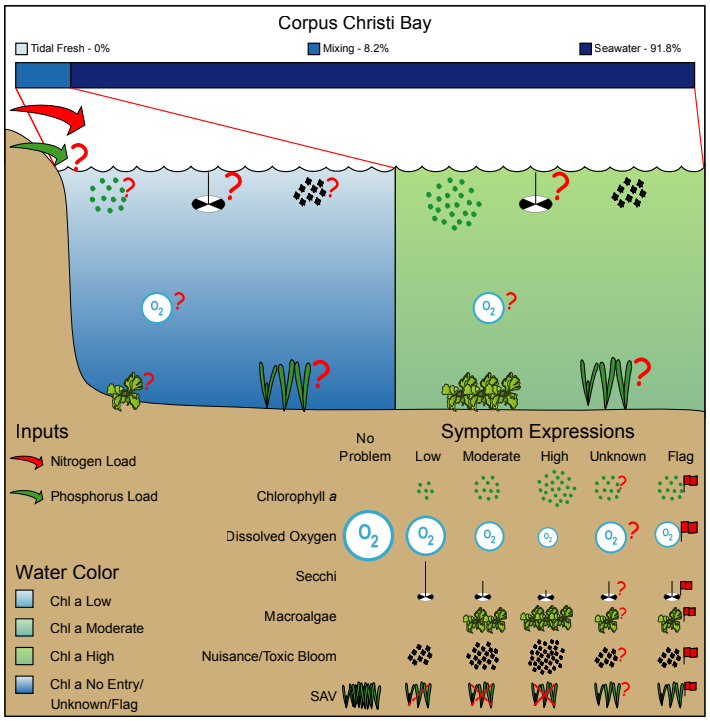
ASSETS Rating

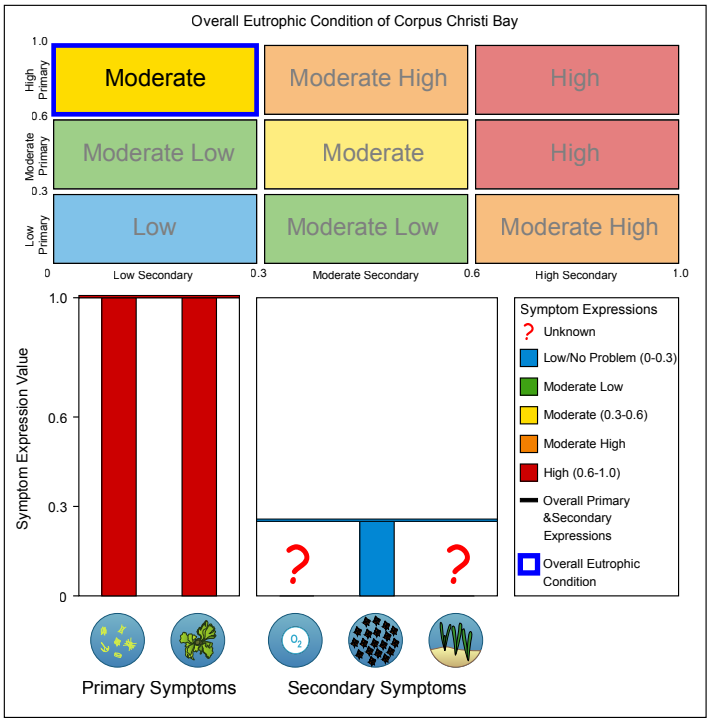
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





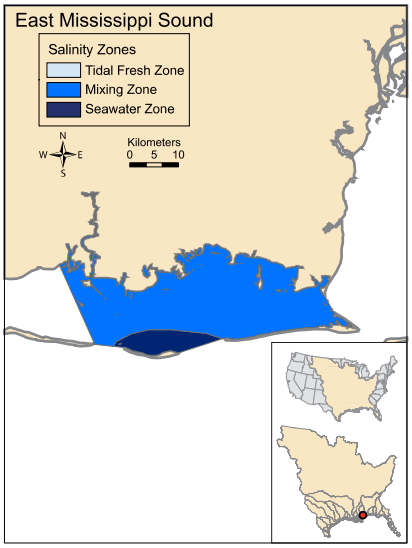
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	571	Urban (km^2)	842 (1.9%)	Area (km^2)	44,525
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	7,744 (17.5%)	Mean elevation (m)	233
Mixing zone area (km^2)	47	Forest (km^2)	7,174 (16.2%)	Max. elevation (m)	736
Saltwater zone area (km^2)	524	Wetland (km^2)	70 (0.2%)	Watershed: estuary ratio	78.0
Volume (1,000 x m^3)	1,535,990	Range (km^2)	28,493 (64.3%)	TSS (tonne y^{-1})	318,000
Depth (m)	2.69	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	12,230,000
Tide Height (m)	0.40	Total (km^2)	44,323 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	46	Population	424,884	TSS/est. area (tonne km^{-2} y^{-1})	557
		Popn: est. area ratio	744	DIN/est. area (kg km^{-2} y^{-1})	21,419
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

East Mississippi Sound

SUMMARY

Very limited data were available for East Mississippi Sound. However, chlorophyll-a and dissolved oxygen symptom expressions in the mixing zone (90% of the Sound?s area) were determined to be low. This was an improvement for both indicators since the moderate rating assigned in the 1999 assessment.

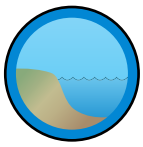


Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

Level of expression of eutrophic conditions is minimal.



Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

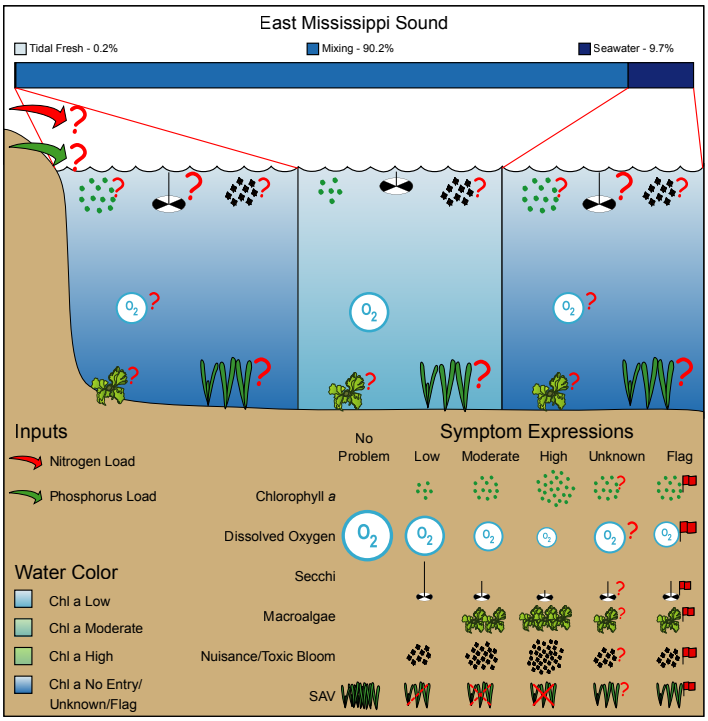
ASSETS Rating

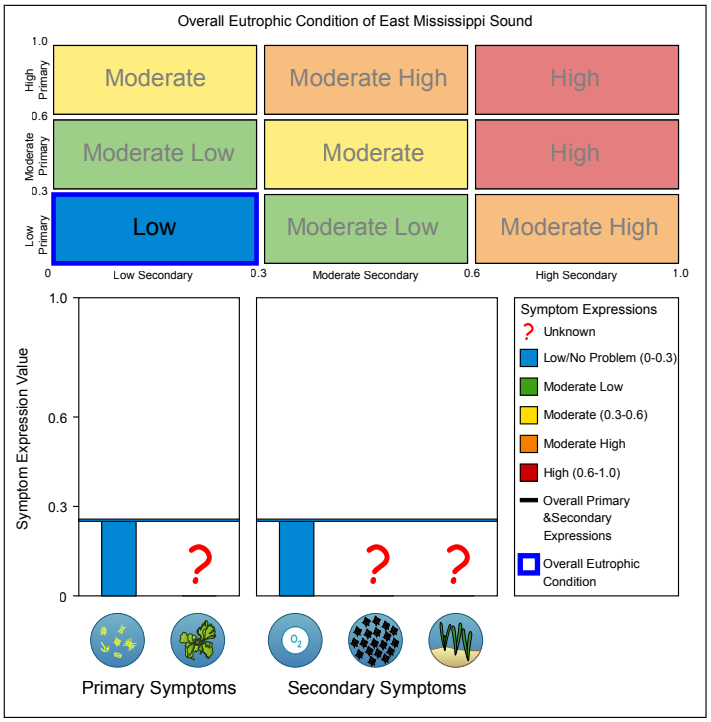
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





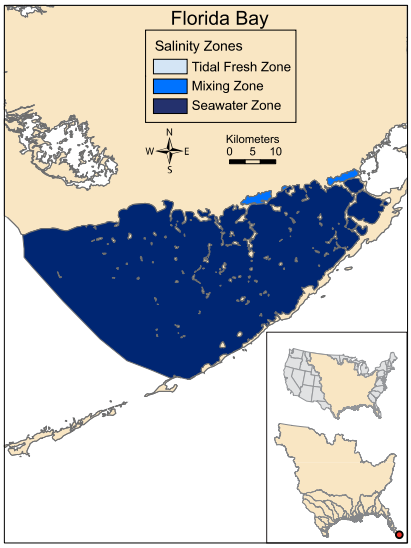
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	654	Urban (km^2)	966 (3.9%)	Area (km^2)	25,006
Tidal fresh zone area (km^2)	1	Agriculture (km^2)	5,095 (20.5%)	Mean elevation (m)	81
Mixing zone area (km^2)	590	Forest (km^2)	17,871 (71.9%)	Max. elevation (m)	198
Saltwater zone area (km^2)	63	Wetland (km^2)	881 (3.5%)	Watershed: estuary ratio	38.2
Volume (1,000 x m^3)	1,530,360	Range (km^2)	47 (0.2%)	TSS (tonne y^{-1})	407,000
Depth (m)	2.34	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.49	Total (km^2)	24,859 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	15	Population	523,176	TSS/est. area (tonne km^{-2} y^{-1})	622
		Popn: est. area ratio	800	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Florida Bay

SUMMARY

The overall eutrophic condition of Florida Bay is moderate but no change since 1999 can be determined. High chlorophyll-a symptom expression was reported due to periodic elevated concentrations over a large area, which have worsened since the 1999 assessment. Dissolved oxygen symptom expression was low, an improvement since the 1999 assessment.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

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

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

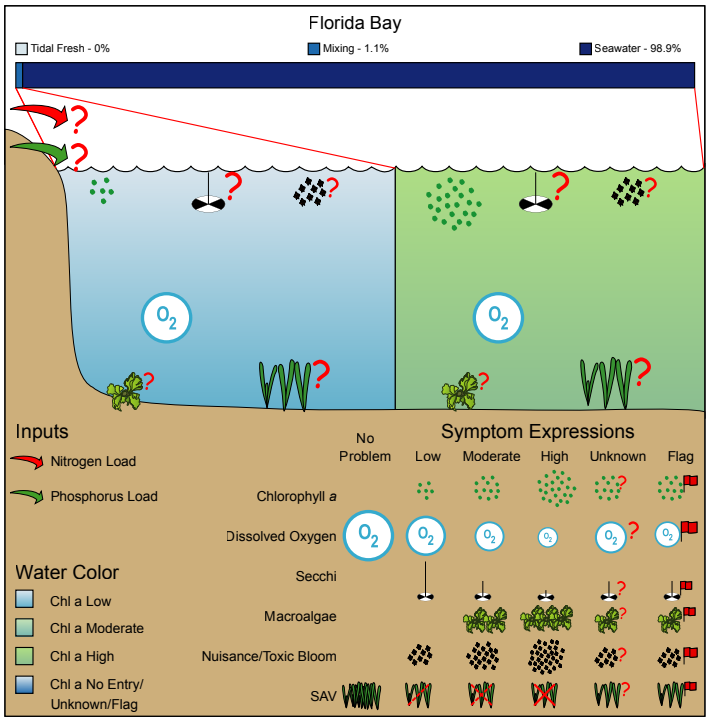
ASSETS Rating

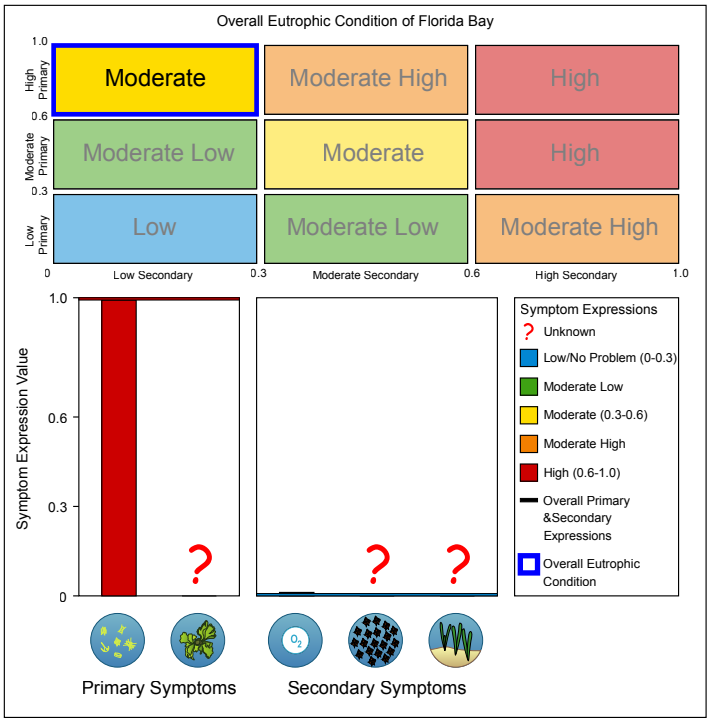
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





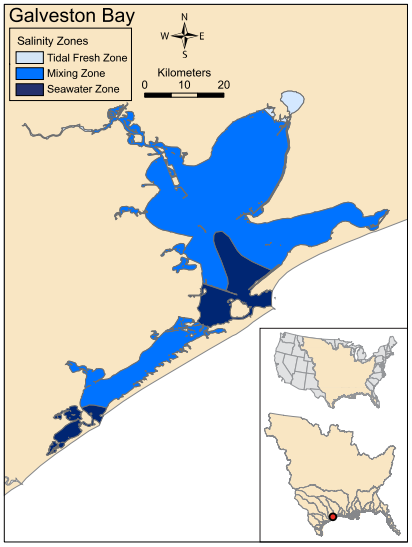
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,663	Urban (km^2)	13 (1.6%)	Area (km^2)	905
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	10 (1.3%)	Mean elevation (m)	1
Mixing zone area (km^2)	18	Forest (km^2)	18 (2.2%)	Max. elevation (m)	2
Saltwater zone area (km^2)	1,645	Wetland (km^2)	780 (94.7%)	Watershed: estuary ratio	0.5
Volume (1,000 x m^3)	1,031,060	Range (km^2)	3 (0.3%)	TSS (tonne y^{-1})	32,600
Depth (m)	0.62	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.30	Total (km^2)	824 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	2	Population	3,421	TSS/est. area (tonne km^{-2} y^{-1})	20
		Popn: est. area ratio	2	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

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.

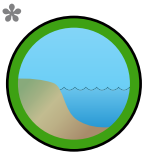


Influencing Factors

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

Eutrophic Conditions **

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



Future Outlook

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

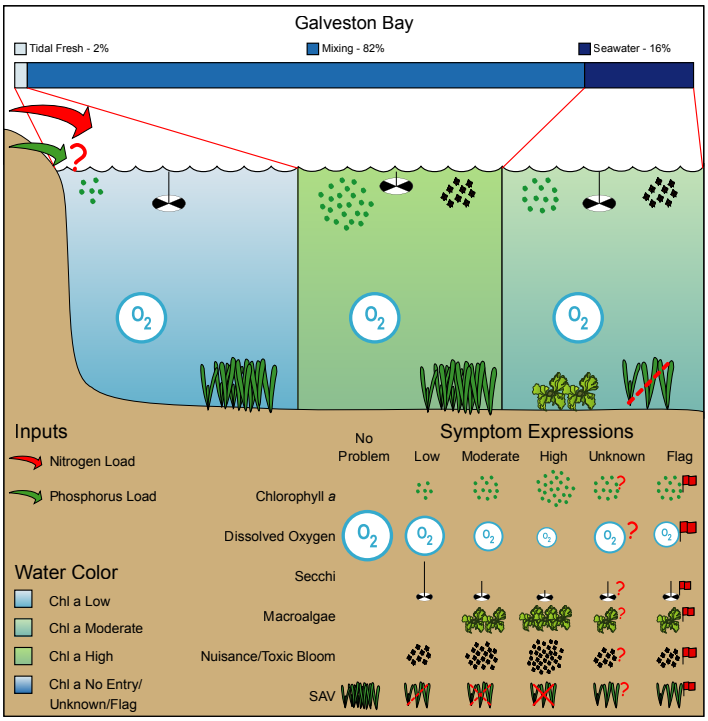
ASSETS Rating

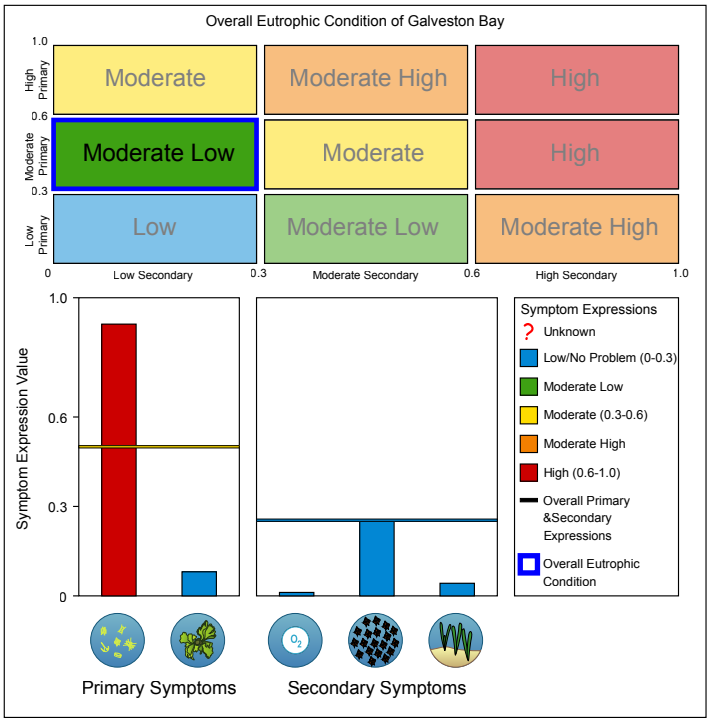
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

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

Lake Borgne

SUMMARY

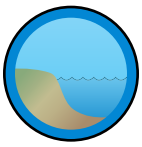
Chlorophyll-a and dissolved oxygen symptom expressions in Lake Borgne are low, but are the only indicators for which there are records. Dissolved oxygen symptom expression was also low in the 1999 assessment. Chlorophyll-a was not assessed at the time. There is insufficient data to assess changes that have occurred since the 1999 assessment.

Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

Level of expression of eutrophic conditions is minimal.

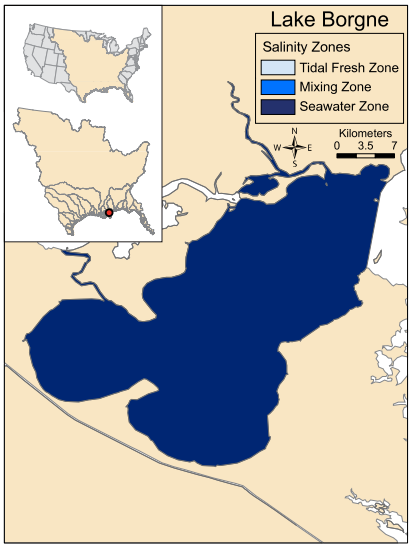


Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

ASSETS Rating

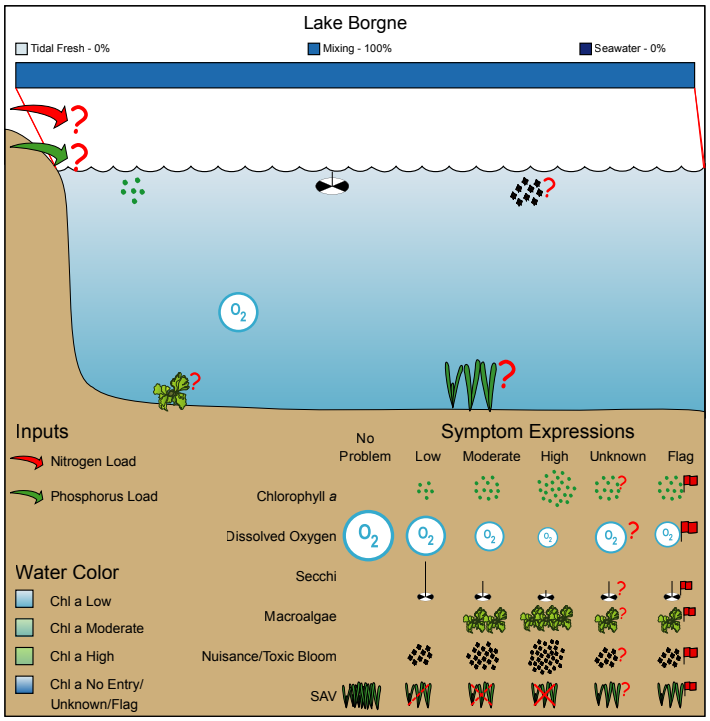
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

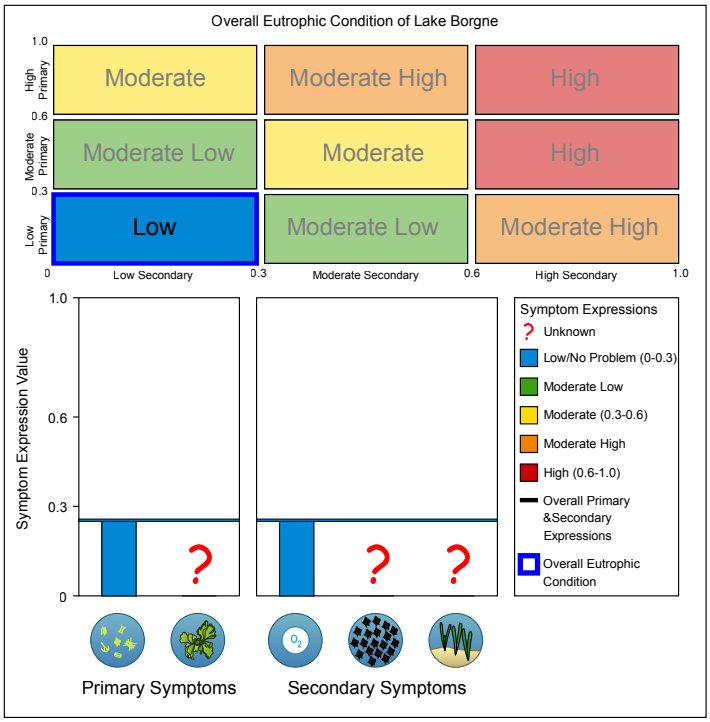


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





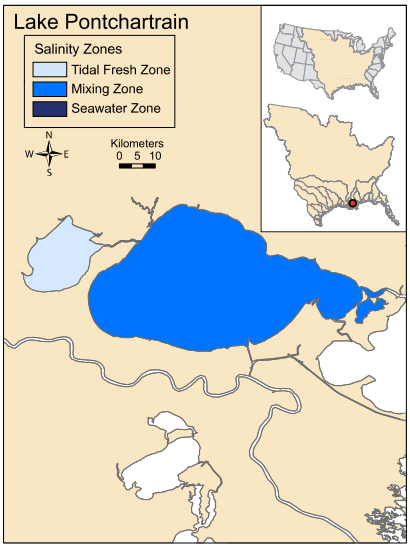
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	744	Urban (km^2)	1,241 (5.4%)	Area (km^2)	23,214
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	6,589 (28.7%)	Mean elevation (m)	101
Mixing zone area (km^2)	744	Forest (km^2)	13,815 (60.1%)	Max. elevation (m)	197
Saltwater zone area (km^2)	0	Wetland (km^2)	1,323 (5.8%)	Watershed: estuary ratio	31.2
Volume (1,000 x m^3)	1,346,640	Range (km^2)	5 (0%)	TSS (tonne y^{-1})	604,000
Depth (m)	1.81	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.35	Total (km^2)	22,973 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	17	Population	1,198,770	TSS/est. area (tonne km^{-2} y^{-1})	812
		Popn: est. area ratio	1,611	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Lake Pontchartrain

SUMMARY

Lake Pontchartrain is characterized by high chlorophyll-a and a low dissolved oxygen and toxic/nuisance bloom symptom expression. Chlorophyll-a expression has increased since 1999, at which time a moderate rating was assigned. Macroalgae has a moderate symptom expression, with the most extreme conditions occurring when the Bonnet Carre is open.



Influencing Factors

Moderate to high nitrogen input and moderate to high susceptibility (low ability for dilution and flushing of 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 are likely to substantially worsen.

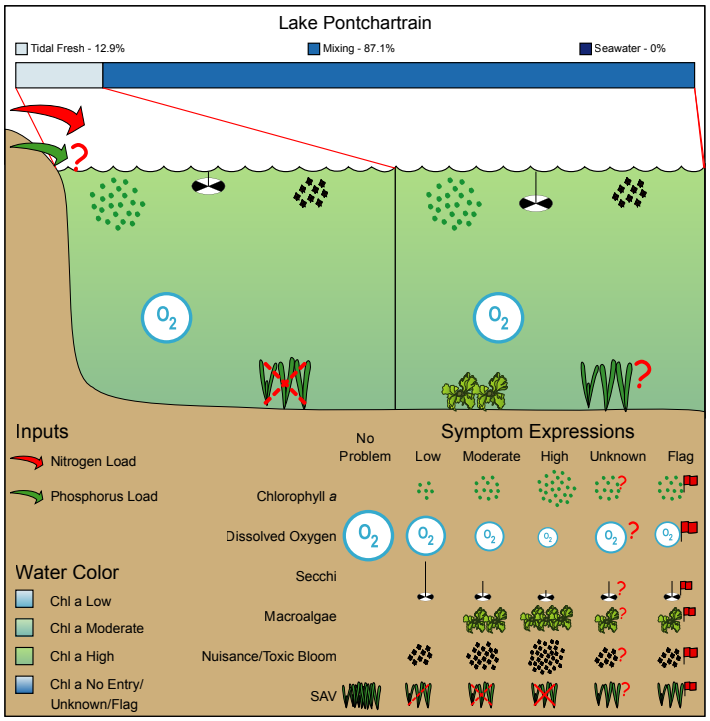
ASSETS Rating

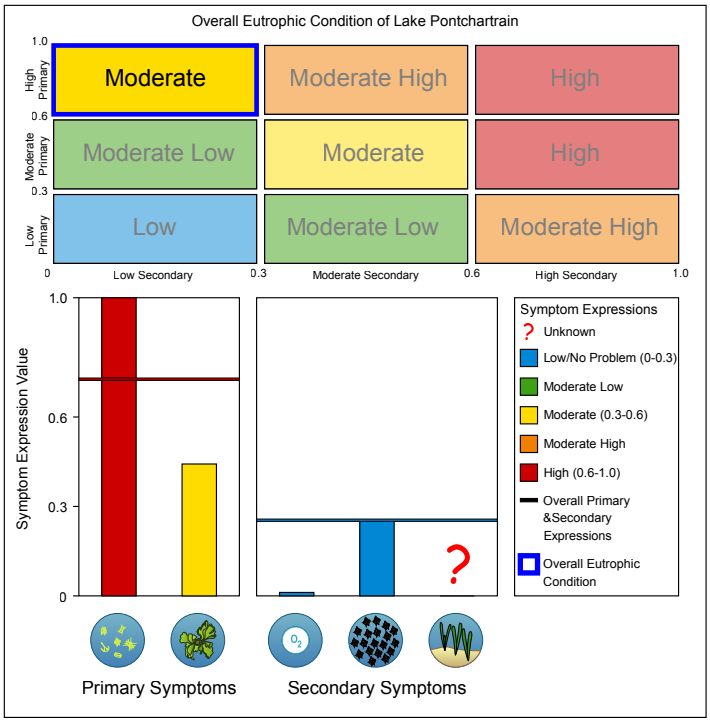
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





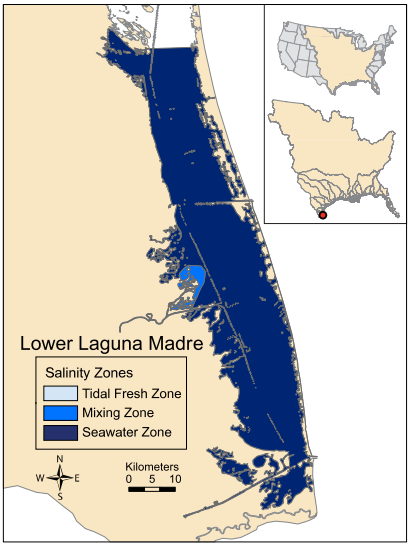
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,879	Urban (km^2)	1,207 (10%)	Area (km^2)	12,179
Tidal fresh zone area (km^2)	242	Agriculture (km^2)	3,250 (26.8%)	Mean elevation (m)	43
Mixing zone area (km^2)	1,637	Forest (km^2)	6,177 (51%)	Max. elevation (m)	158
Saltwater zone area (km^2)	0	Wetland (km^2)	1,466 (12.1%)	Watershed: estuary ratio	6.5
Volume (1,000 x m^3)	6,576,500	Range (km^2)	8 (0.1%)	TSS (tonne y^{-1})	3,120,000
Depth (m)	3.50	Barren (km^2)	0 (0%)	TN (kg y^{-1})	10,900,000
Tide Height (m)	0.27	Total (km^2)	12,108 (0%)	TP (kg y^{-1})	Unknown
Residence Time (d)	125	Population	714,036	TSS/est. area (tonne km^{-2} y^{-1})	1,661
		Popn: est. area ratio	380	TN/est. area (kg km^{-2} y^{-1})	5,801
				TP/est. area (kg km^{-2} y^{-1})	Unknown

Lower Laguna Madre

SUMMARY

There is insufficient data to assess eutrophic conditions in Lower Laguna Madre. However, chlorophyll-a data results show a low symptom expression in 2004, an improvement from a high rating in the 1999 assessment. Significant localized seagrass loss is reported to have occurred near the Arroyo Colorado, a muddy, nutrient-rich source of freshwater.



Influencing Factors

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

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

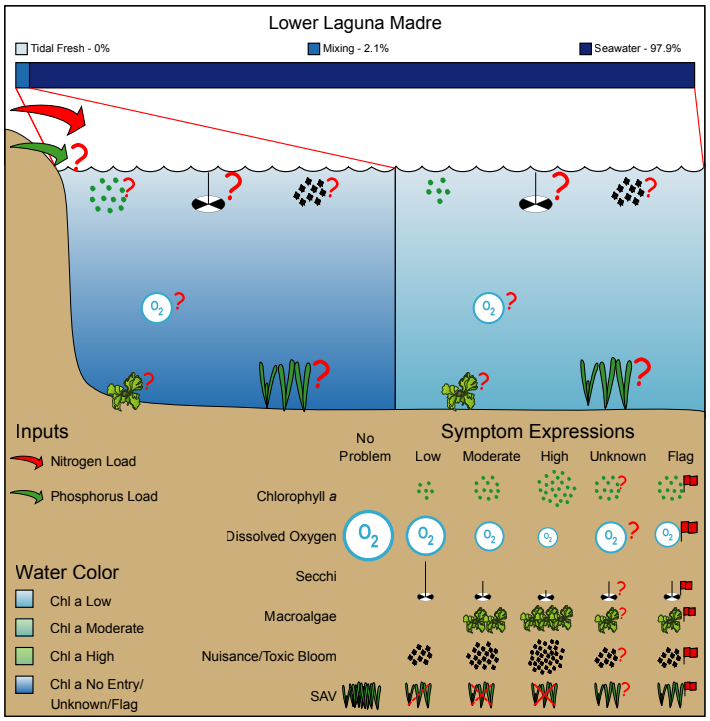
ASSETS Rating

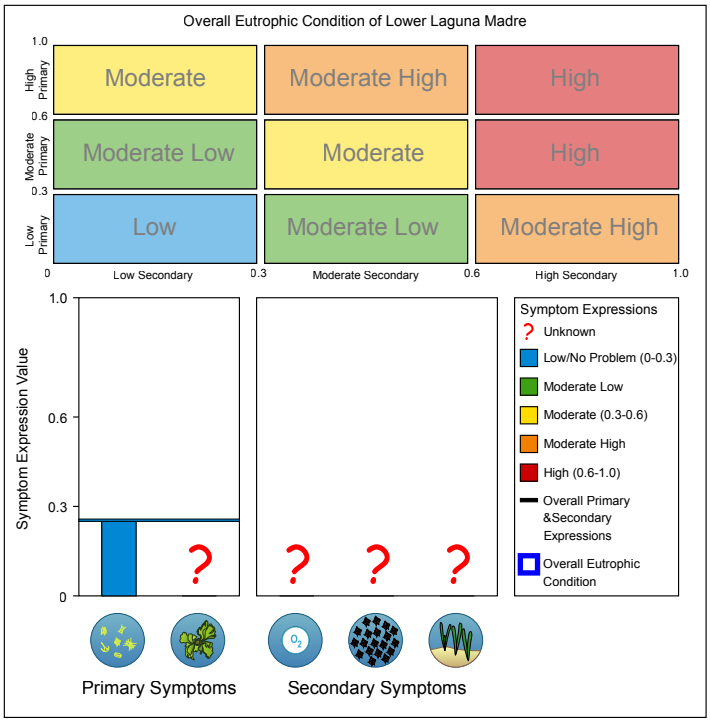
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





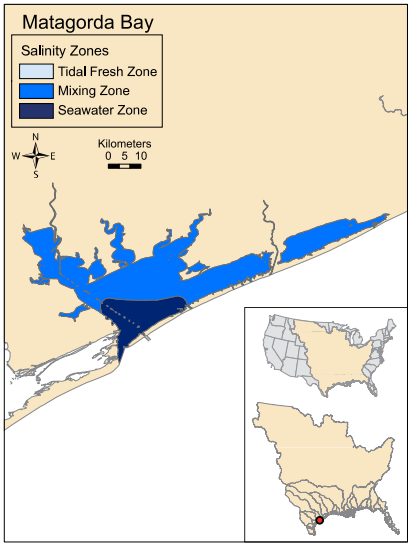
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,308	Urban (km^2)	800 (6.1%)	Area (km^2)	13,165
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	4,672 (35.8%)	Mean elevation (m)	43
Mixing zone area (km^2)	27	Forest (km^2)	655 (5%)	Max. elevation (m)	257
Saltwater zone area (km^2)	1,281	Wetland (km^2)	179 (1.4%)	Watershed: estuary ratio	10.1
Volume (1,000 x m^3)	994,080	Range (km^2)	6,742 (51.7%)	TSS (tonne y^{-1})	3,180,000
Depth (m)	0.76	Barren (km^2)	0 (0%)	TN (kg y^{-1})	12,580,000
Tide Height (m)	0.40	Total (km^2)	13,048 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	4	Population	616,541	TSS/est. area (tonne km^{-2} y^{-1})	2,431
		Popn: est. area ratio	471	TN/est. area (kg km^{-2} y^{-1})	9,618
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Matagorda Bay

SUMMARY

Matagorda Bay is characterized by high-chlorophyll-a concentrations, an increase from the 1999 assessment rating of moderate. Dissolved oxygen levels are healthy, and symptom expression of nuisance/toxic blooms and SAV are low. Nutrient loads are expected to increase slightly in the future and conditions are expected to worsen.



Influencing Factors

Moderate to high nitrogen input and moderate to high susceptibility (low ability for dilution and flushing of 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 are likely to substantially worsen.

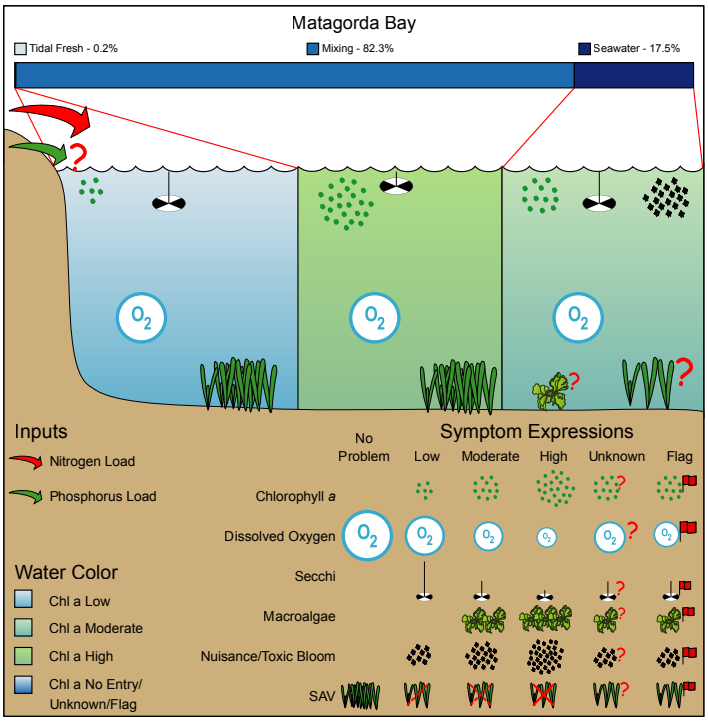
ASSETS Rating

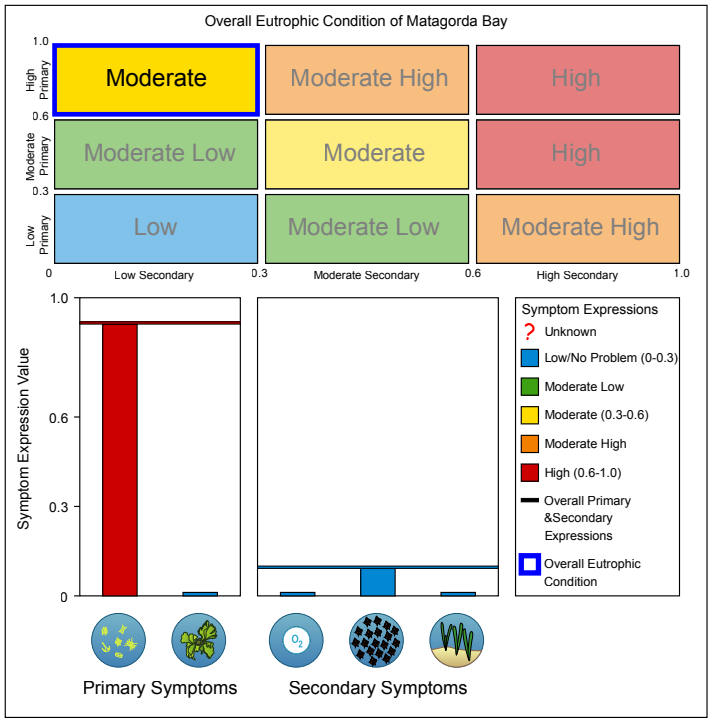
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,115	Urban (km^2)	4,841 (4%)	Area (km^2)	121,762
Tidal fresh zone area (km^2)	2	Agriculture (km^2)	36,115 (29.8%)	Mean elevation (m)	619
Mixing zone area (km^2)	918	Forest (km^2)	21,261 (17.5%)	Max. elevation (m)	1,374
Saltwater zone area (km^2)	195	Wetland (km^2)	443 (0.4%)	Watershed: estuary ratio	109.2
Volume (1,000 x m^3)	1,572,150	Range (km^2)	58,575 (48.3%)	TSS (tonne y^{-1})	1,140,000
Depth (m)	1.41	Barren (km^2)	0 (0%)	TN (kg y^{-1})	44,970,000
Tide Height (m)	0.20	Total (km^2)	121,235 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	38	Population	1,432,800	TSS/est. area (tonne km^{-2} y^{-1})	1,022
		Popn: est. area ratio	1,285	TN/est. area (kg km^{-2} y^{-1})	40,332
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Mermentau River

SUMMARY

Data were unavailable to assess the eutrophic condition of the Mermentau River. In the 1999 assessment, this system was characterized by low overall eutrophic conditions on account of low symptom expression for all indicators with the exception of chlorophyll a for which data were not available.

Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

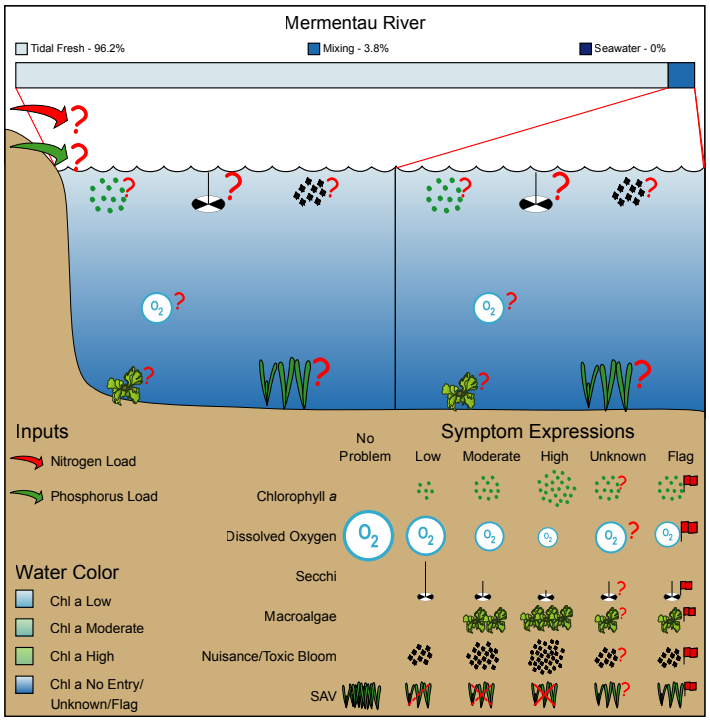
ASSETS Rating

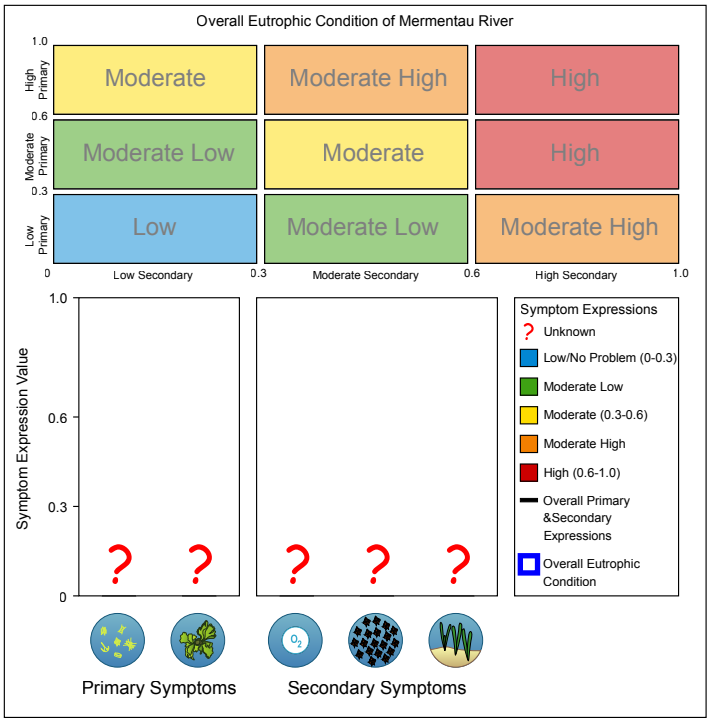
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence			
? Unknown	* Low	** Moderate	*** High

EUTROPHIC CONDITION





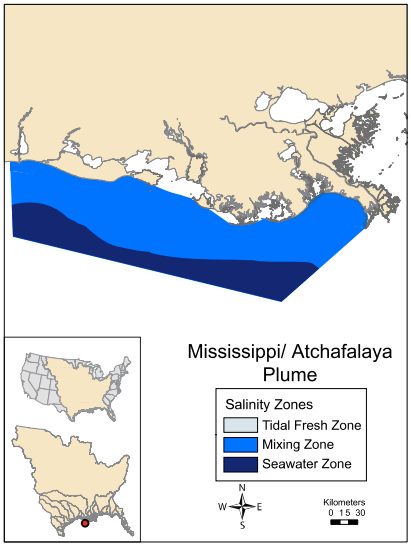
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	450	Urban (km^2)	181 (2.1%)	Area (km^2)	9,035
Tidal fresh zone area (km^2)	433	Agriculture (km^2)	5,089 (58.3%)	Mean elevation (m)	7
Mixing zone area (km^2)	17	Forest (km^2)	730 (8.4%)	Max. elevation (m)	42
Saltwater zone area (km^2)	0	Wetland (km^2)	2,725 (31.2%)	Watershed: estuary ratio	20.1
Volume (1,000 x m^3)	22,500	Range (km^2)	0 (0%)	TSS (tonne y^{-1})	572,000
Depth (m)	0.05	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.03	Total (km^2)	8,726 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	1	Population	194,419	TSS/est. area (tonne km^{-2} y^{-1})	1,271
		Popn: est. area ratio	432	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Mississippi/Atchafalaya Plume

SUMMARY

The Mississippi/Atchafalaya Plume is characterized by high dissolved oxygen and chlorophyll-a symptom expressions as a result of extensive blooms and hypoxia. The area of hypoxia reached an all-time record high in 2002. The Plume's eutrophic condition stems from high nutrient loading contributed largely by the Mississippi River.

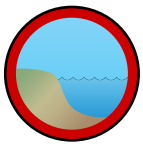


Influencing Factors

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

Eutrophic Conditions *

High primary and secondary symptom levels indicate serious eutrophication problems.



Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

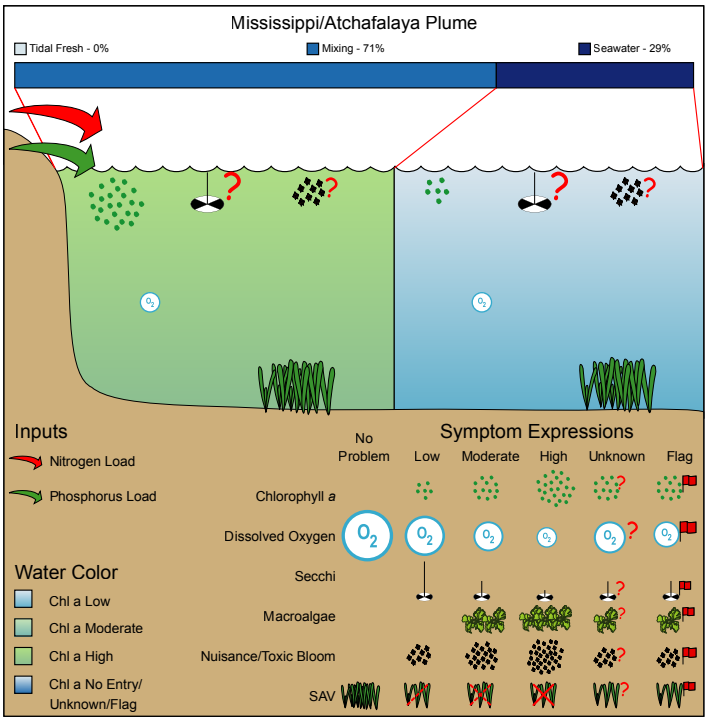
ASSETS Rating

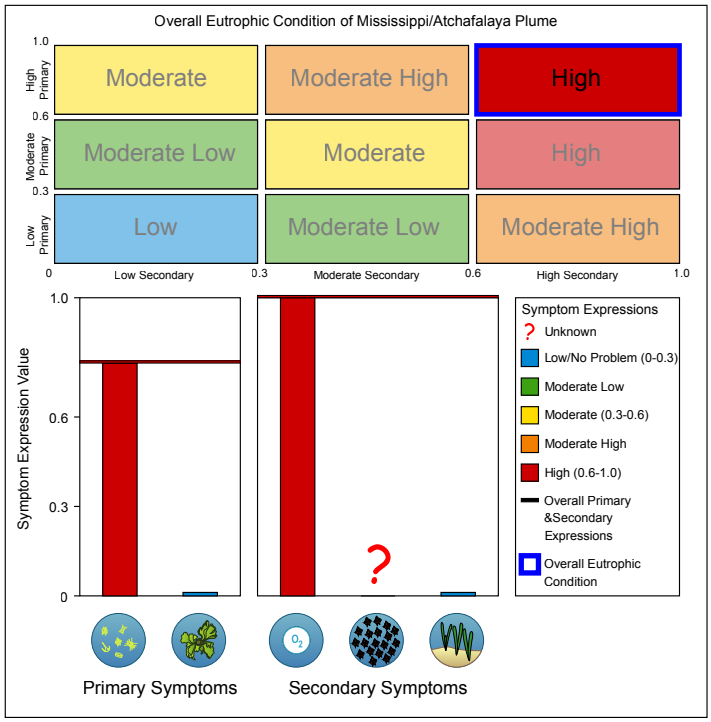
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	31,743	Urban (km^2)	90,230 (3.1%)	Area (km^2)	2,968,304
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	1,463,230 (50.4%)	Mean elevation (m)	693
Mixing zone area (km^2)	22,460	Forest (km^2)	620,214 (21.4%)	Max. elevation (m)	4,282
Saltwater zone area (km^2)	9,283	Wetland (km^2)	33,380 (1.2%)	Watershed: estuary ratio	93.5
Volume (1,000 x m^3)	0	Range (km^2)	695,401 (24%)	TSS (tonne y^{-1})	0
Depth (m)	0.00	Barren (km^2)	86 (0%)	DIN (kg y^{-1})	625,000,000
Tide Height (m)	0.00	Total (km^2)	2,902,540 (0%)	TP (kg y^{-1})	133,682,000
Residence Time (d)	0	Population	0	TSS/est. area (tonne km^{-2} y^{-1})	0
		Popn: est. area ratio	0	DIN/est. area (kg km^{-2} y^{-1})	19,689
				TP/est. area (kg km^{-2} y^{-1})	4,211

Mississippi River

SUMMARY

The Mississippi River is characterized by high nutrient loading and turbidity. The estuary's overall eutrophic rating has remained unchanged since the 1999 assessment, with moderate chlorophyll-a concentrations and a low symptom expression for dissolved oxygen. More data are needed for an accurate evaluation.

Influencing Factors

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

Eutrophic Conditions *

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

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

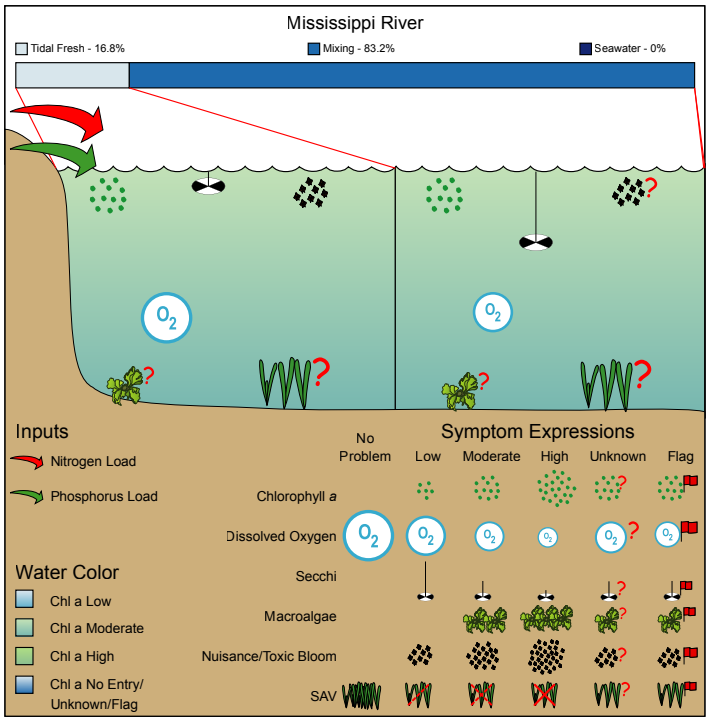
ASSETS Rating

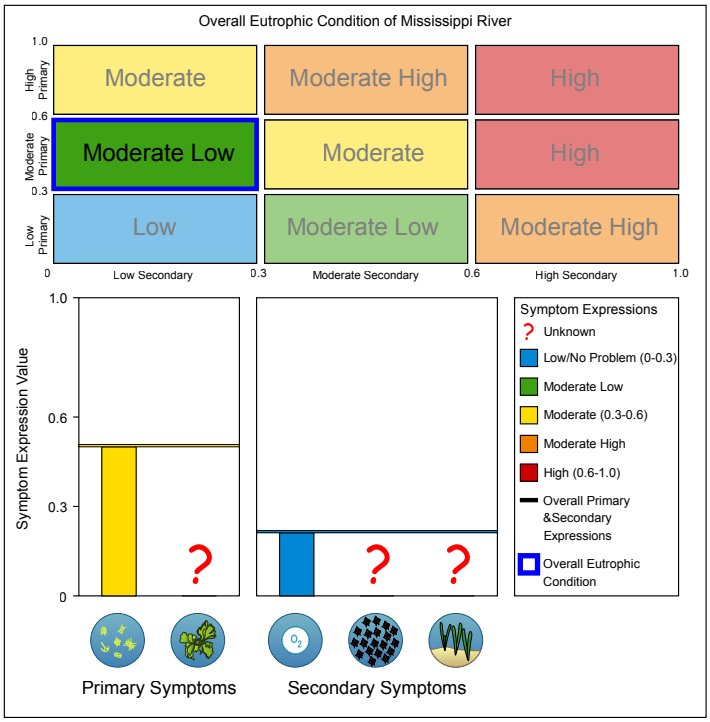
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





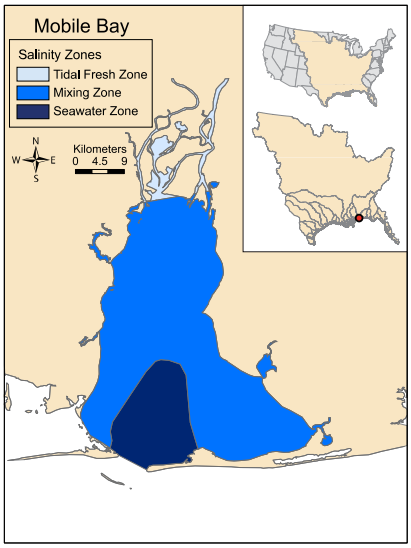
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	981	Urban (km^2)	90,230 (3.1%)	Area (km^2)	2,968,304
Tidal fresh zone area (km^2)	165	Agriculture (km^2)	1,463,230 (50.4%)	Mean elevation (m)	693
Mixing zone area (km^2)	816	Forest (km^2)	620,214 (21.4%)	Max. elevation (m)	4,282
Saltwater zone area (km^2)	0	Wetland (km^2)	33,380 (1.2%)	Watershed: estuary ratio	3,025.8
Volume (1,000 x m^3)	6,876,810	Range (km^2)	695,401 (24%)	TSS (tonne y^{-1})	1,290,000
Depth (m)	7.01	Barren (km^2)	86 (0%)	DIN (kg y^{-1})	625,000,000
Tide Height (m)	0.29	Total (km^2)	2,902,540 (0%)	TP (kg y^{-1})	133,682,000
Residence Time (d)	4	Population	73,009,176	TSS/est. area (tonne km^{-2} y^{-1})	1,315
		Popn: est. area ratio	74,423	DIN/est. area (kg km^{-2} y^{-1})	637,105
				TP/est. area (kg km^{-2} y^{-1})	136,271

Mobile Bay

SUMMARY

Mobile Bay is characterized by moderate chlorophyll-a concentrations and low symptom expressions for dissolved oxygen, macroalgae, and nuisance/toxic blooms. Nutrient loading is expected to increase along with projected populations and conditions are expect to become worse in the future as a result.



Influencing Factors

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

Eutrophic Conditions *

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

Future Outlook

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

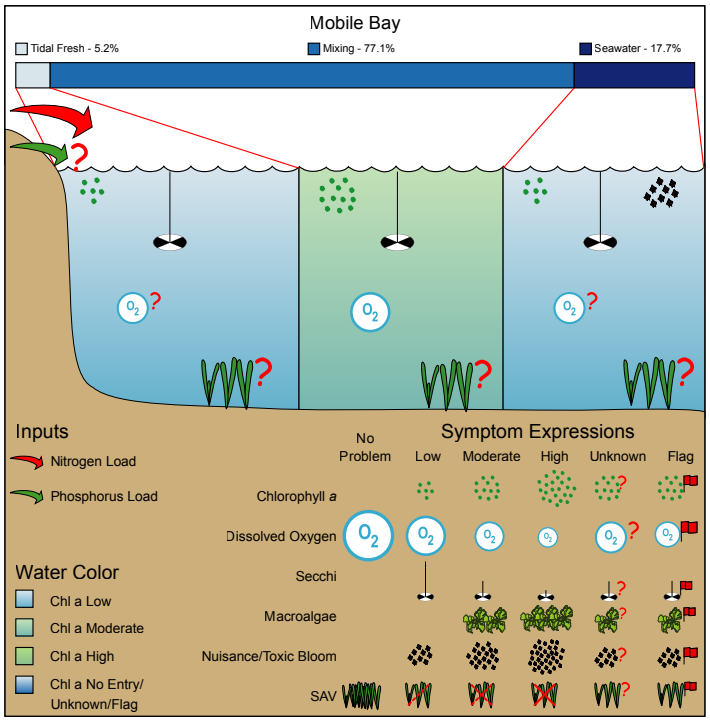
ASSETS Rating

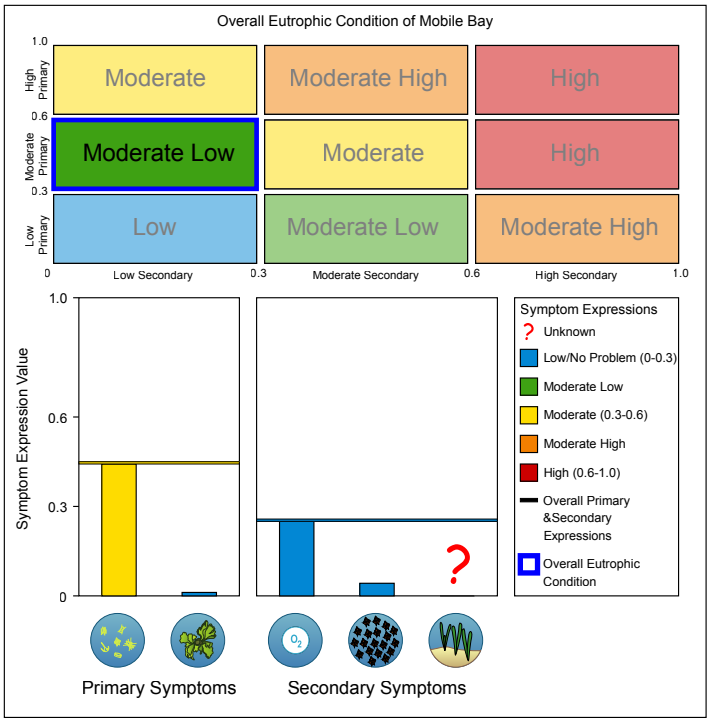
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





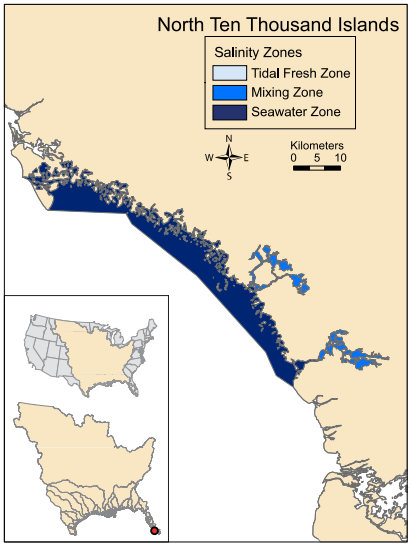
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,079	Urban (km^2)	5,877 (5.2%)	Area (km^2)	114,418
Tidal fresh zone area (km^2)	56	Agriculture (km^2)	26,405 (23.3%)	Mean elevation (m)	154
Mixing zone area (km^2)	832	Forest (km^2)	78,518 (69.4%)	Max. elevation (m)	1,189
Saltwater zone area (km^2)	191	Wetland (km^2)	2,186 (1.9%)	Watershed: estuary ratio	106.0
Volume (1,000 x m^3)	2,060,890	Range (km^2)	210 (0.2%)	TSS (tonne y^{-1})	1,790,000
Depth (m)	1.91	Barren (km^2)	0 (0%)	TN (kg y^{-1})	59,900,000
Tide Height (m)	0.36	Total (km^2)	113,195 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	9	Population	3,820,760	TSS/est. area (tonne km^{-2} y^{-1})	1,659
		Popn: est. area ratio	3,541	TN/est. area (kg km^{-2} y^{-1})	55,514
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

North Ten Thousand Islands

SUMMARY

Only chlorophyll-a and dissolved oxygen data were available for assessment of North Ten Thousand Islands. However, the data suggest an increase in chlorophyll-a and a slight decrease in dissolved oxygen concentrations in the seawater zone. More information is needed to accurately assess the eutrophic condition of the estuary.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

Primary symptoms high and substantial secondary symptoms becoming more expressed, indicating potentially serious problems.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

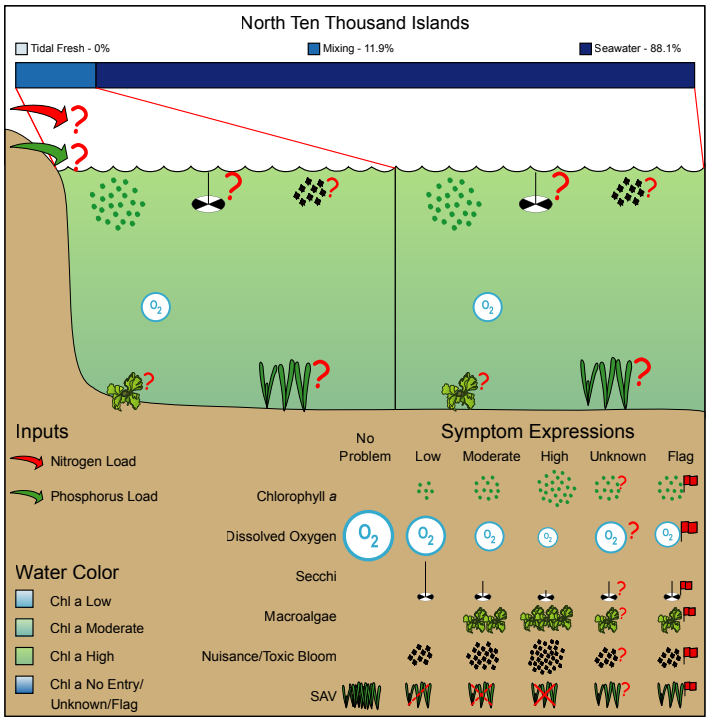
ASSETS Rating

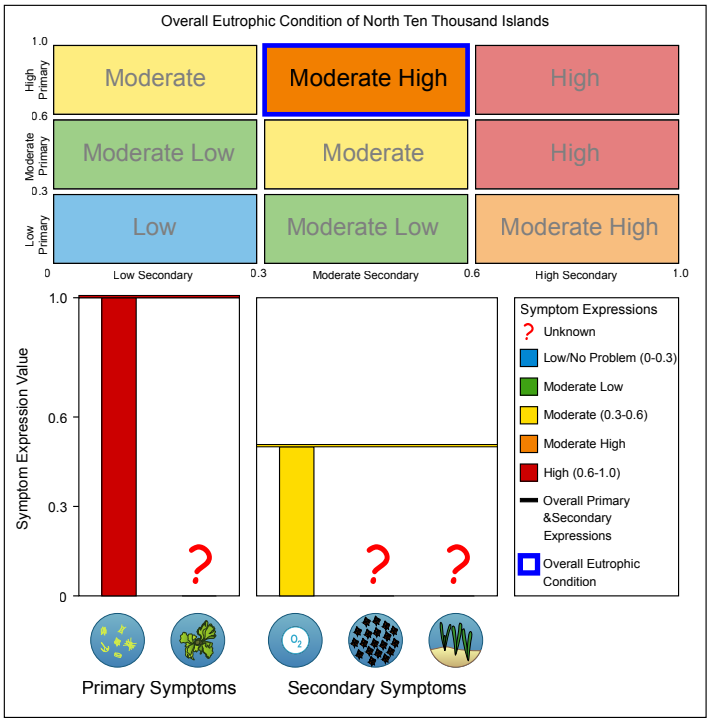
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





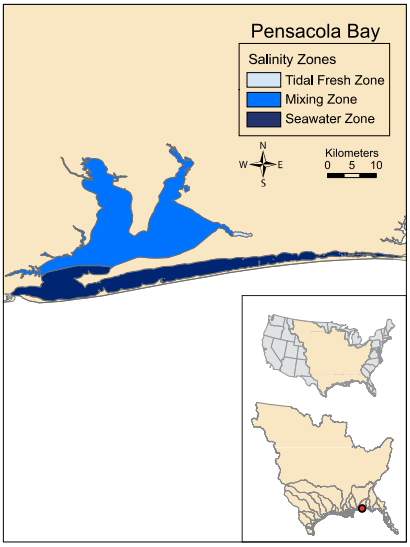
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	390	Urban (km^2)	150 (3.2%)	Area (km^2)	4,921
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	445 (9.3%)	Mean elevation (m)	2
Mixing zone area (km^2)	46	Forest (km^2)	404 (8.5%)	Max. elevation (m)	9
Saltwater zone area (km^2)	344	Wetland (km^2)	3,186 (66.8%)	Watershed: estuary ratio	12.6
Volume (1,000 x m^3)	284,700	Range (km^2)	583 (12.2%)	TSS (tonne y^{-1})	12,700
Depth (m)	0.73	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.81	Total (km^2)	4,768 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	0	Population	9,268	TSS/est. area (tonne km^{-2} y^{-1})	33
		Popn: est. area ratio	24	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Pensacola Bay

SUMMARY

Little data were available for Pensacola Bay, but dissolved oxygen levels suggest a low symptom expression, an improvement since the 1999 assessment. The Department of Environmental Protection notes that eutrophication effects are localized to poorly flushed bayous (such as Bayou Texar) that empty into the estuary, rather than the estuary proper.



Influencing Factors

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

Eutrophic Conditions *

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

Future Outlook

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

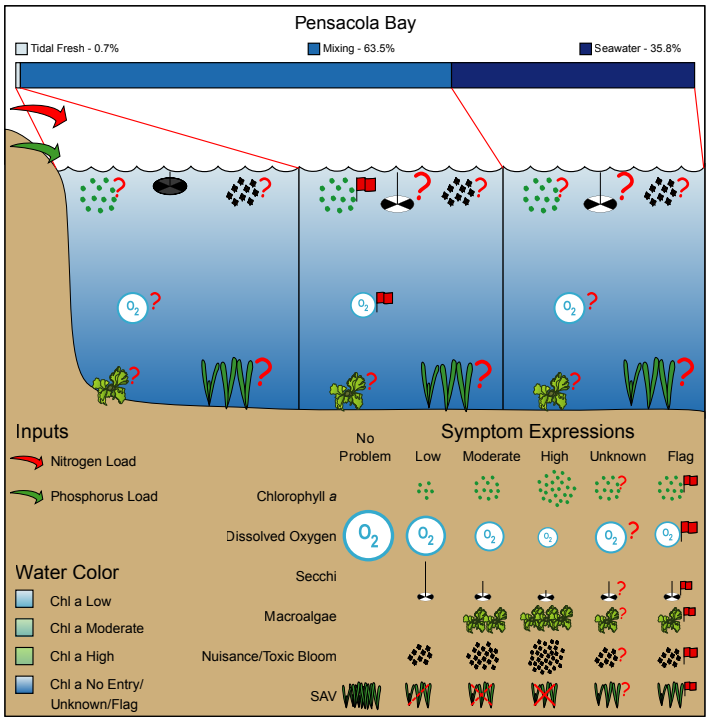
ASSETS Rating

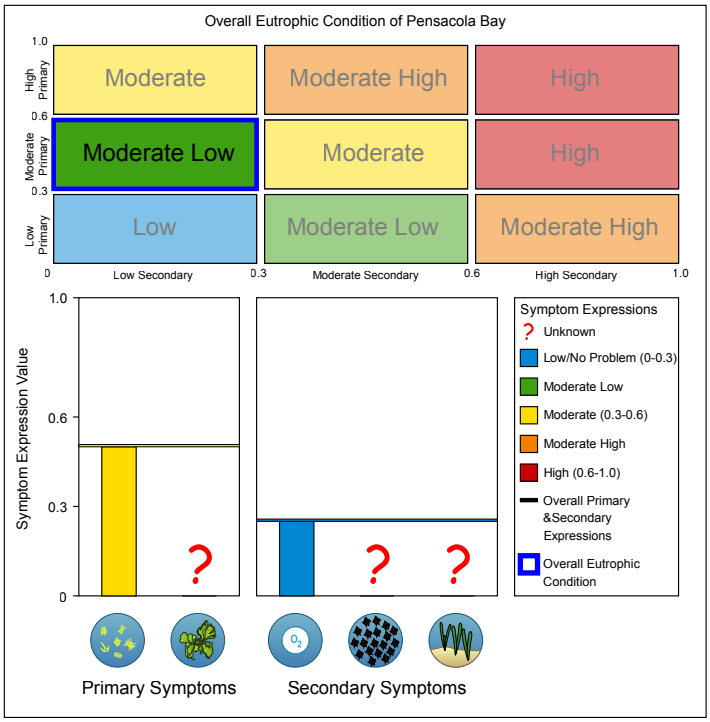
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	477	Urban (km^2)	818 (4.7%)	Area (km^2)	17,650
Tidal fresh zone area (km^2)	3	Agriculture (km^2)	3,869 (22.1%)	Mean elevation (m)	87
Mixing zone area (km^2)	303	Forest (km^2)	12,085 (69.2%)	Max. elevation (m)	198
Saltwater zone area (km^2)	171	Wetland (km^2)	684 (3.9%)	Watershed: estuary ratio	37.0
Volume (1,000 x m^3)	1,440,540	Range (km^2)	16 (0.1%)	TSS (tonne y^{-1})	1,060,000
Depth (m)	3.02	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	220,000
Tide Height (m)	0.42	Total (km^2)	17,472 (0%)	DIP (kg y^{-1})	53,200
Residence Time (d)	27	Population	370,678	TSS/est. area (tonne km^{-2} y^{-1})	2,222
		Popn: est. area ratio	777	DIN/est. area (kg km^{-2} y^{-1})	461
				DIP/est. area (kg km^{-2} y^{-1})	112

Perdido Bay

SUMMARY

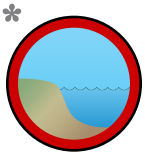
Perdido Bay's high eutrophic condition rating stems primarily from a high symptom expression for dissolved oxygen and moderate level macroalgal symptoms. Hypoxic and biologically stressful dissolved oxygen levels occur in the tidal fresh and mixing zones. Industry and wastewater treatment have contributed considerably to the bay's water quality.

Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions **

Substantial levels of eutrophic conditions occurring with secondary symptoms indicating serious problems.

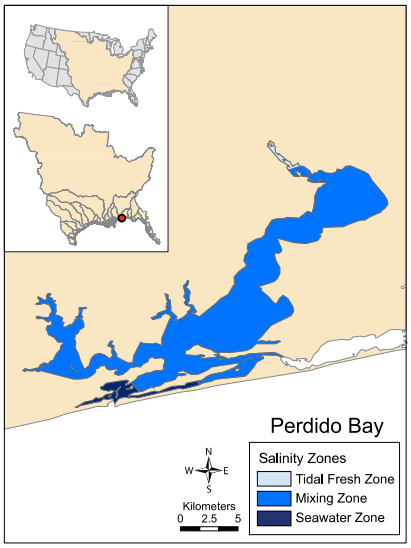


Future Outlook

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

ASSETS Rating

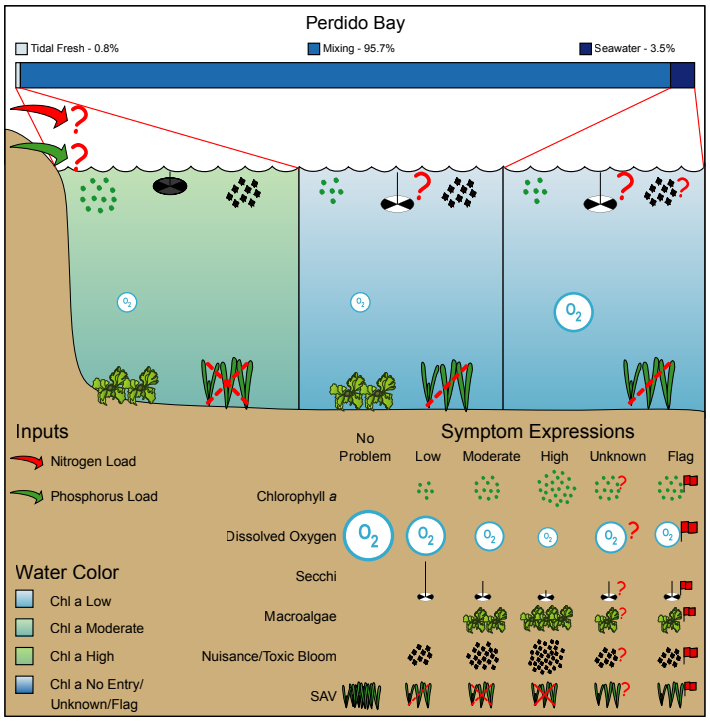
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

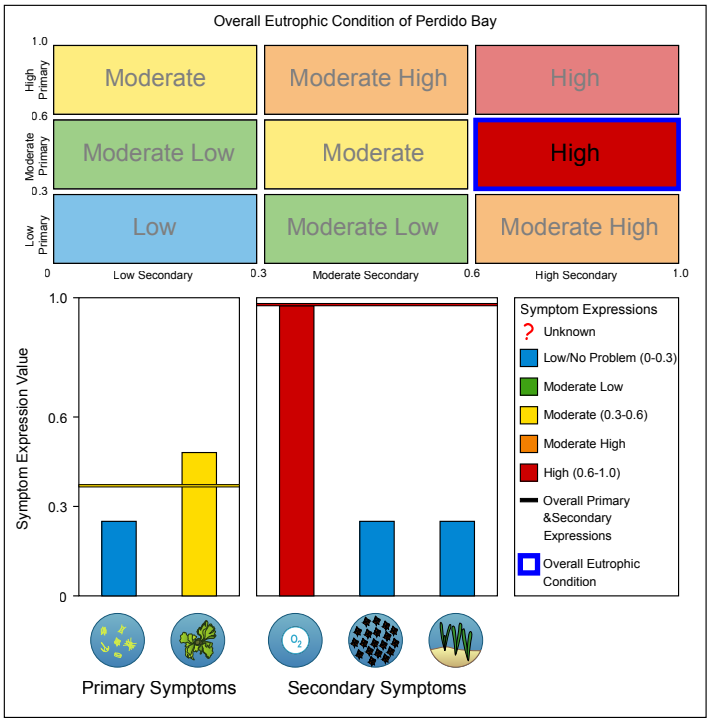


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





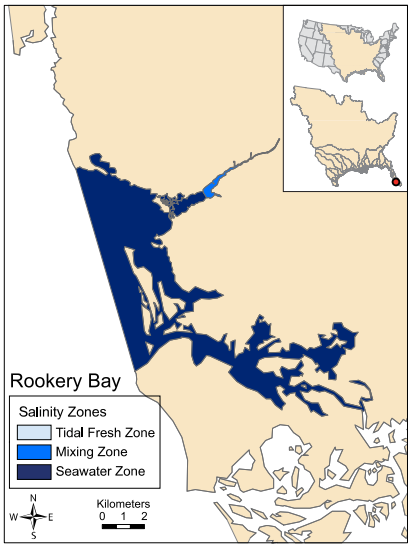
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	129	Urban (km^2)	249 (8.6%)	Area (km^2)	2,928
Tidal fresh zone area (km^2)	1	Agriculture (km^2)	686 (23.6%)	Mean elevation (m)	46
Mixing zone area (km^2)	123	Forest (km^2)	1,865 (64.2%)	Max. elevation (m)	109
Saltwater zone area (km^2)	5	Wetland (km^2)	104 (3.6%)	Watershed: estuary ratio	22.7
Volume (1,000 x m^3)	197,370	Range (km^2)	0 (0%)	TSS (tonne y^{-1})	946,000
Depth (m)	1.53	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.15	Total (km^2)	2,903 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	33	Population	156,628	TSS/est. area (tonne km^{-2} y^{-1})	7,333
		Popn: est. area ratio	1,214	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Rookery Bay

SUMMARY

Only dissolved oxygen and chlorophyll-a concentrations were available for Rookery Bay. Chlorophyll-a symptom expression is high dissolved oxygen symptom expression is moderate. Additional data are needed in order to accurately evaluate this system.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

Primary symptoms high and substantial secondary symptoms becoming more expressed, indicating potentially serious problems.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

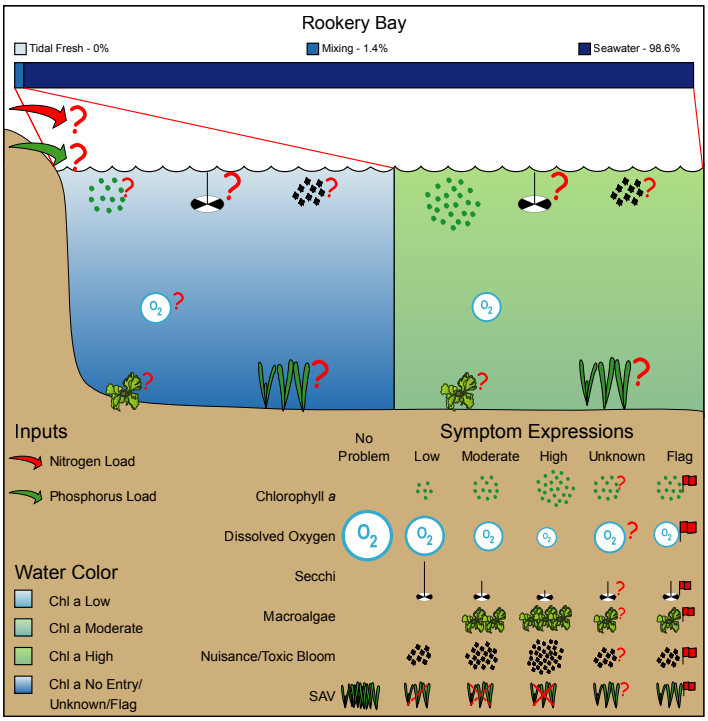
ASSETS Rating

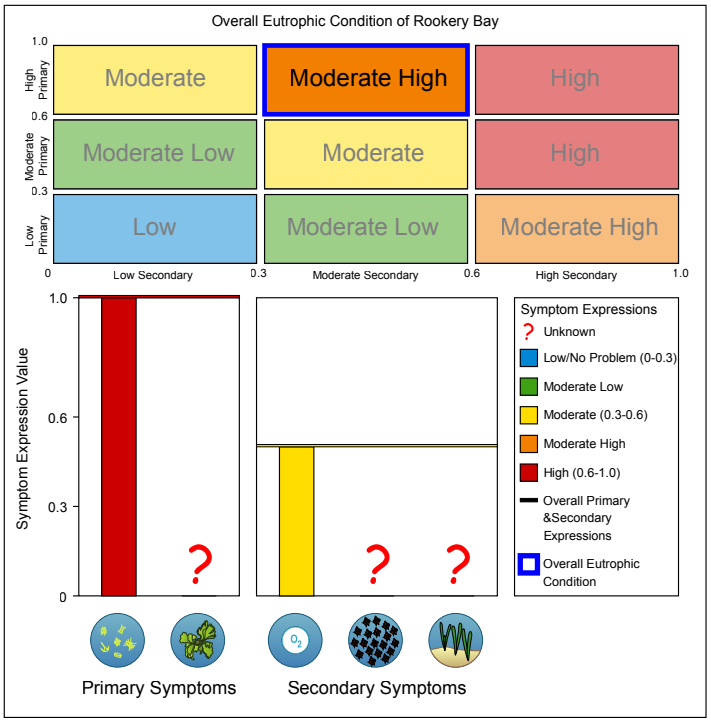
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





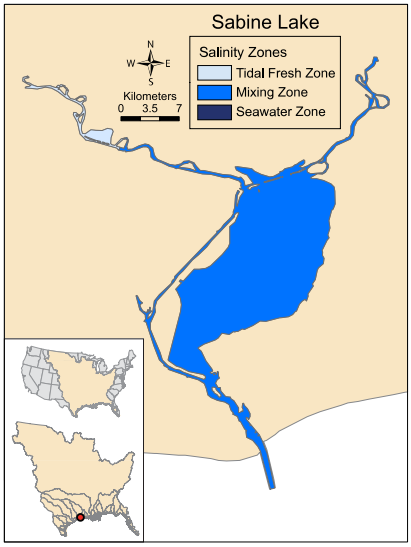
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	35	Urban (km^2)	41 (13%)	Area (km^2)	330
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	140 (43.9%)	Mean elevation (m)	1
Mixing zone area (km^2)	<1	Forest (km^2)	49 (15.4%)	Max. elevation (m)	3
Saltwater zone area (km^2)	35	Wetland (km^2)	85 (26.8%)	Watershed: estuary ratio	9.4
Volume (1,000 x m^3)	17,500	Range (km^2)	3 (0.8%)	TSS (tonne y^{-1})	3,900
Depth (m)	0.50	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.52	Total (km^2)	319 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	0	Population	14,858	TSS/est. area (tonne km^{-2} y^{-1})	111
		Popn: est. area ratio	425	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

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.

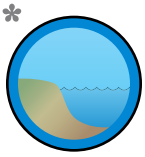


Influencing Factors

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.

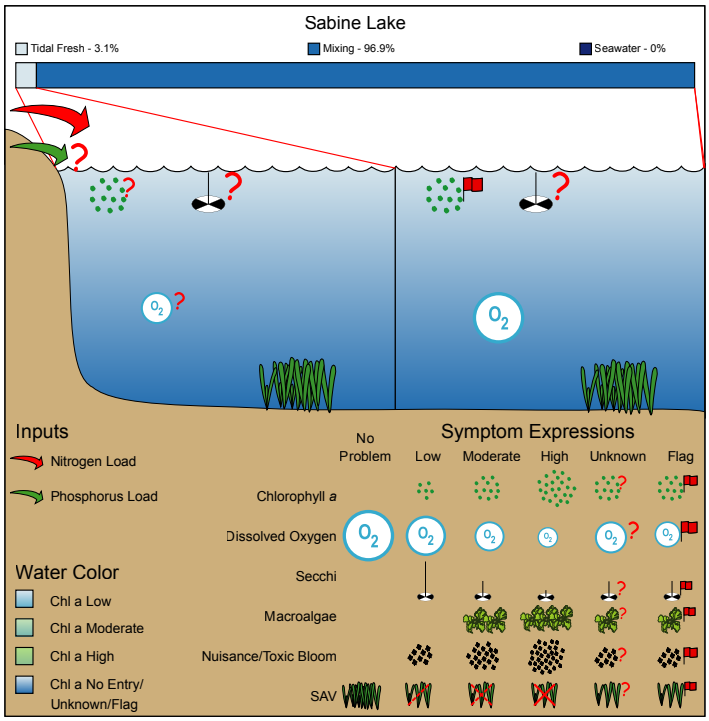
ASSETS Rating

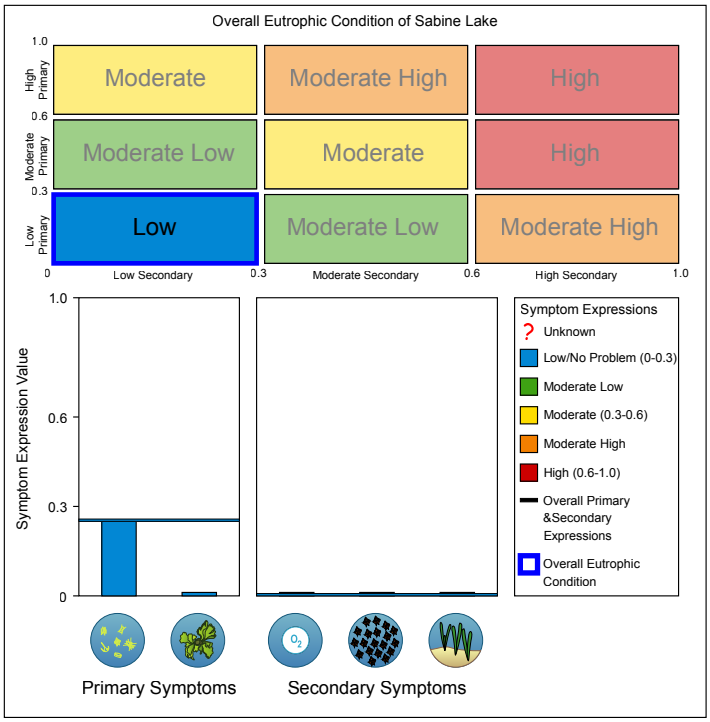
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

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

San Antonio Bay

SUMMARY

Limited data were available to assess the eutrophic condition of San Antonio Bay. However, chlorophyll-a concentrations suggest an increase since the 1999 assessment whereas dissolved oxygen appears unchanged at a low symptom expression value. More data are needed to accurately assign a rating.

Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

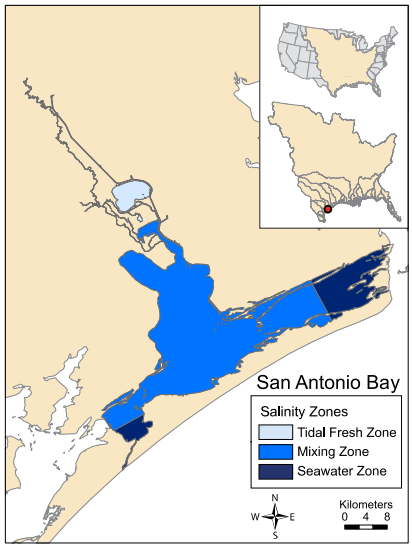
Primary symptoms high but problems with more serious secondary symptoms still not being expressed.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

ASSETS Rating

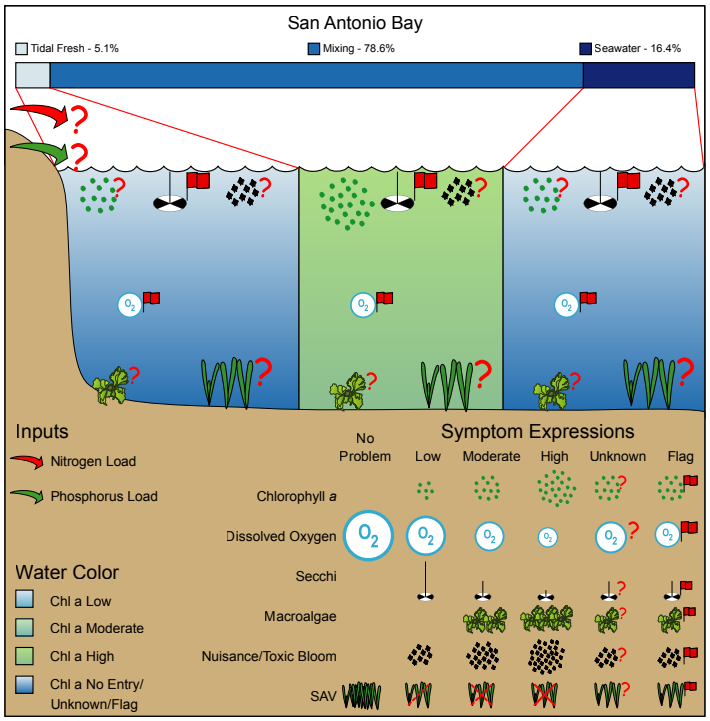
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

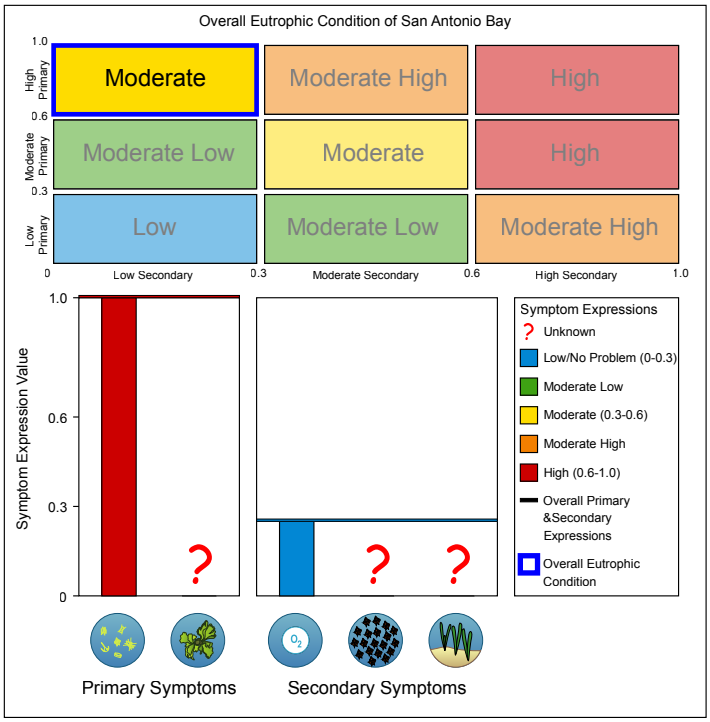


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





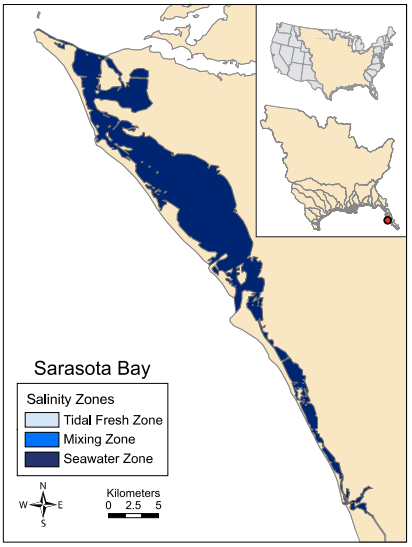
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	587	Urban (km^2)	1,940 (7.2%)	Area (km^2)	27,097
Tidal fresh zone area (km^2)	30	Agriculture (km^2)	9,886 (36.7%)	Mean elevation (m)	232
Mixing zone area (km^2)	461	Forest (km^2)	11,875 (44.1%)	Max. elevation (m)	731
Saltwater zone area (km^2)	96	Wetland (km^2)	326 (1.2%)	Watershed: estuary ratio	46.2
Volume (1,000 x m^3)	346,330	Range (km^2)	2,906 (10.8%)	TSS (tonne y^{-1})	131,000
Depth (m)	0.59	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.19	Total (km^2)	26,933 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	8	Population	1,590,933	TSS/est. area (tonne km^{-2} y^{-1})	223
		Popn: est. area ratio	2,710	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Sarasota Bay

SUMMARY

Sarasota Bay is a coastal embayment, characterized by a high symptom expression for chlorophyll-a and macroalgae. Nuisance/toxic blooms have a symptom expression of moderate, while dissolved oxygen and SAV symptoms are low. Decreases in nitrogen concentration and increased SAV coverage have helped to improve water clarity.

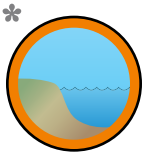


Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions **

Primary symptoms high and substantial secondary symptoms becoming more expressed, indicating potentially serious problems.



Future Outlook

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

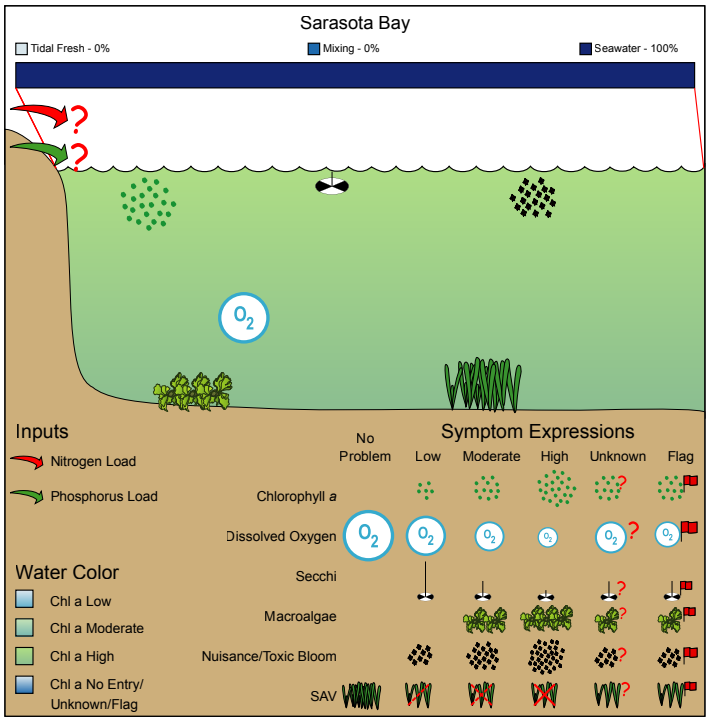
ASSETS Rating

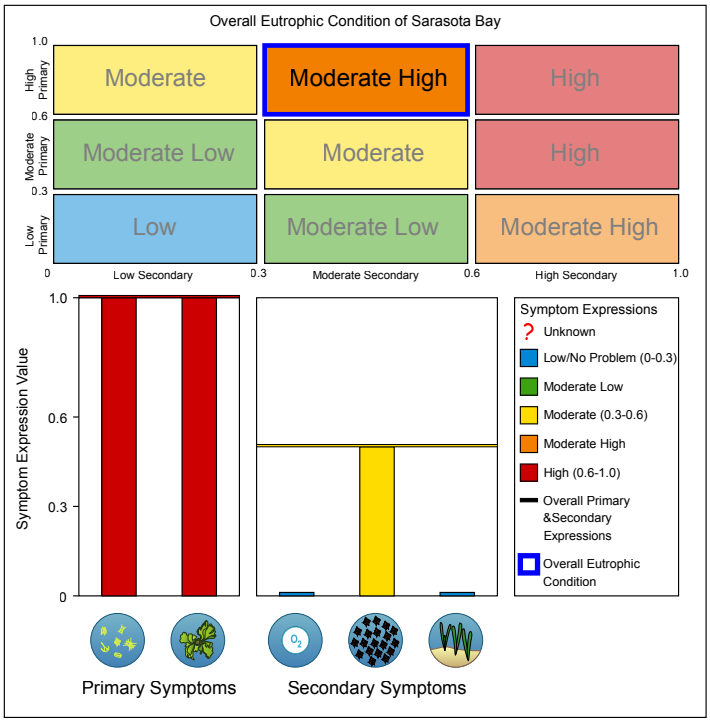
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





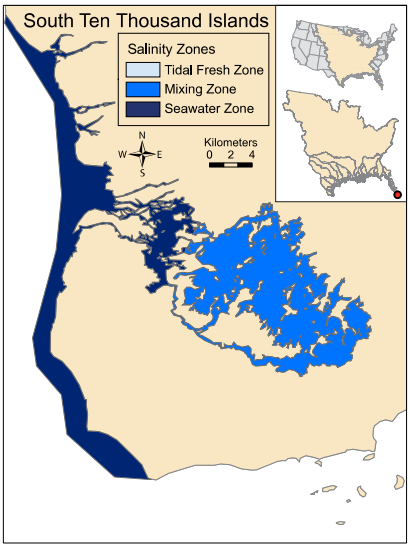
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	124	Urban (km^2)	300 (47.2%)	Area (km^2)	653
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	137 (21.5%)	Mean elevation (m)	7
Mixing zone area (km^2)	0	Forest (km^2)	21 (3.3%)	Max. elevation (m)	30
Saltwater zone area (km^2)	124	Wetland (km^2)	21 (3.3%)	Watershed: estuary ratio	5.3
Volume (1,000 x m^3)	271,560	Range (km^2)	158 (24.8%)	TSS (tonne y^{-1})	14,600
Depth (m)	2.19	Barren (km^2)	0 (0%)	TN (kg y^{-1})	Unknown
Tide Height (m)	0.67	Total (km^2)	637 (0%)	TP (kg y^{-1})	Unknown
Residence Time (d)	5	Population	229,454	TSS/est. area (tonne km^{-2} y^{-1})	118
		Popn: est. area ratio	1,850	TN/est. area (kg km^{-2} y^{-1})	Unknown
				TP/est. area (kg km^{-2} y^{-1})	Unknown

South Ten Thousand Islands

SUMMARY

No current data were available to assess the eutrophic condition of South Ten Thousand Islands. In the 1999 assessment, the system was characterized by a moderate high eutrophic condition, stemming from moderate chlorophyll-a and high dissolved-oxygen symptom expressions.



Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

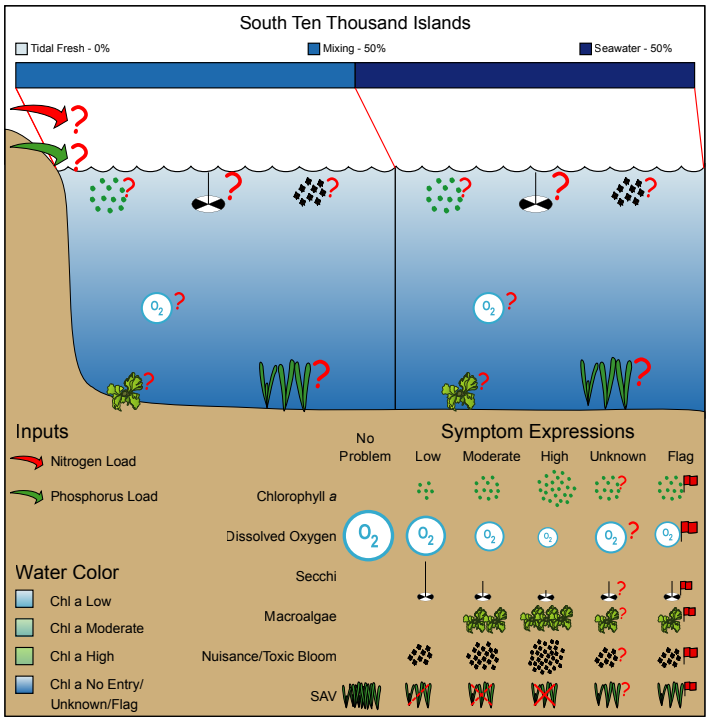
ASSETS Rating

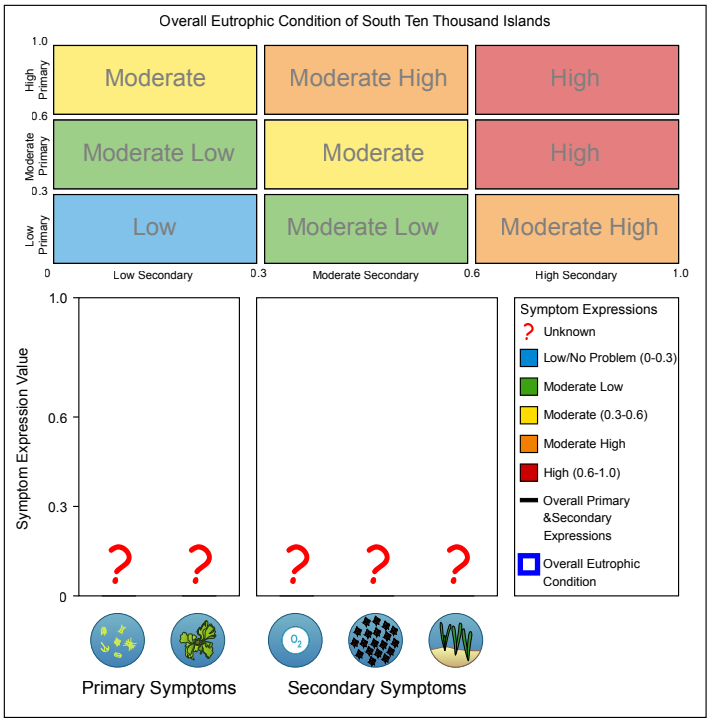
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	227	Urban (km^2)	104 (3.5%)	Area (km^2)	3,069
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	272 (9.1%)	Mean elevation (m)	1
Mixing zone area (km^2)	114	Forest (km^2)	111 (3.7%)	Max. elevation (m)	3
Saltwater zone area (km^2)	114	Wetland (km^2)	2,481 (83.4%)	Watershed: estuary ratio	13.5
Volume (1,000 x m^3)	143,010	Range (km^2)	5 (0.2%)	TSS (tonne y^{-1})	80,800
Depth (m)	0.63	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.62	Total (km^2)	2,973 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	1	Population	235,792	TSS/est. area (tonne km^{-2} y^{-1})	356
		Popn: est. area ratio	1,039	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

St. Andrew Bay

SUMMARY

No data were available to assess the eutrophic condition of St. Andrew Bay. In the 1999 assessment, the bay was characterized by a moderate eutrophic condition rating, with moderate chlorophyll-a and dissolved oxygen symptom expressions. Nuisance/toxic blooms and macroalgae were rated as low in the 1999 assessment.

Influencing Factors

Nutrient load is unknown and influencing factors cannot be calculated.

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

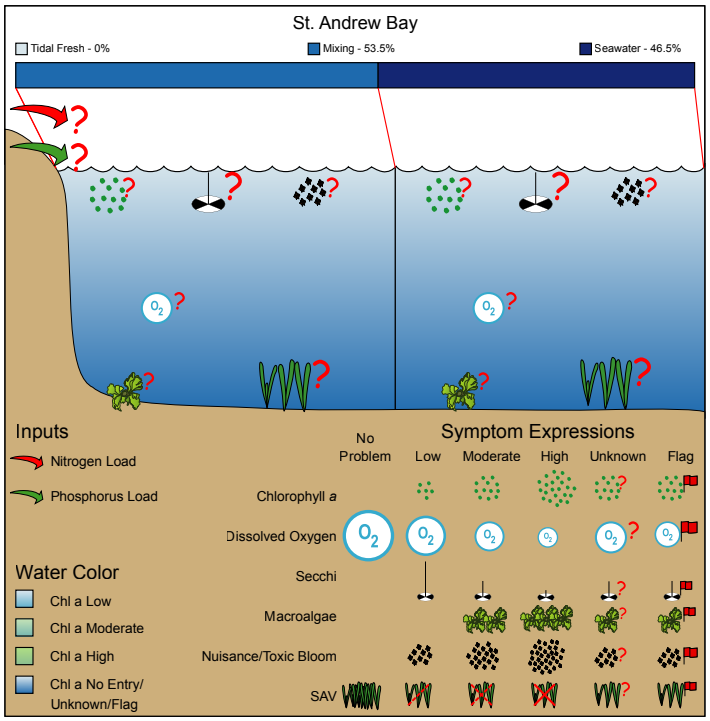
ASSETS Rating

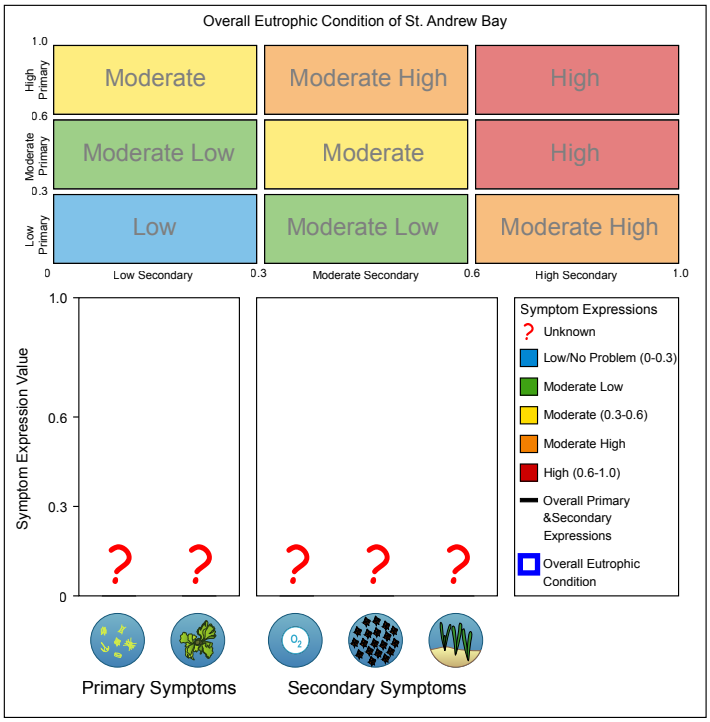
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





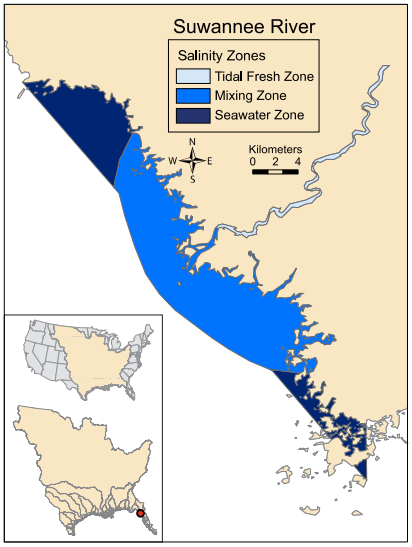
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	252	Urban (km^2)	236 (8.9%)	Area (km^2)	2,697
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	83 (3.1%)	Mean elevation (m)	20
Mixing zone area (km^2)	135	Forest (km^2)	1,966 (74.5%)	Max. elevation (m)	94
Saltwater zone area (km^2)	117	Wetland (km^2)	352 (13.3%)	Watershed: estuary ratio	10.7
Volume (1,000 x m^3)	713,160	Range (km^2)	3 (0.1%)	TSS (tonne y^{-1})	110,000
Depth (m)	2.83	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	Unknown
Tide Height (m)	0.44	Total (km^2)	2,639 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	38	Population	91,594	TSS/est. area (tonne km^{-2} y^{-1})	437
		Popn: est. area ratio	364	DIN/est. area (kg km^{-2} y^{-1})	Unknown
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Suwannee River

SUMMARY

All symptoms had low expression values leading to a low overall eutrophic condition rating. SAV area has remained unchanged and macroalgae is reported as non-problematic. Nuisance/toxic blooms are an episodic problem in the seawater zone (29% of the area). Chlorophyll-a and dissolved oxygen symptoms tend to be episodic, over a moderate area.

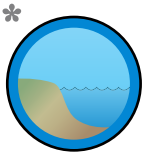


Influencing Factors

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

Eutrophic Conditions **

Level of expression of eutrophic conditions is minimal.



Future Outlook

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

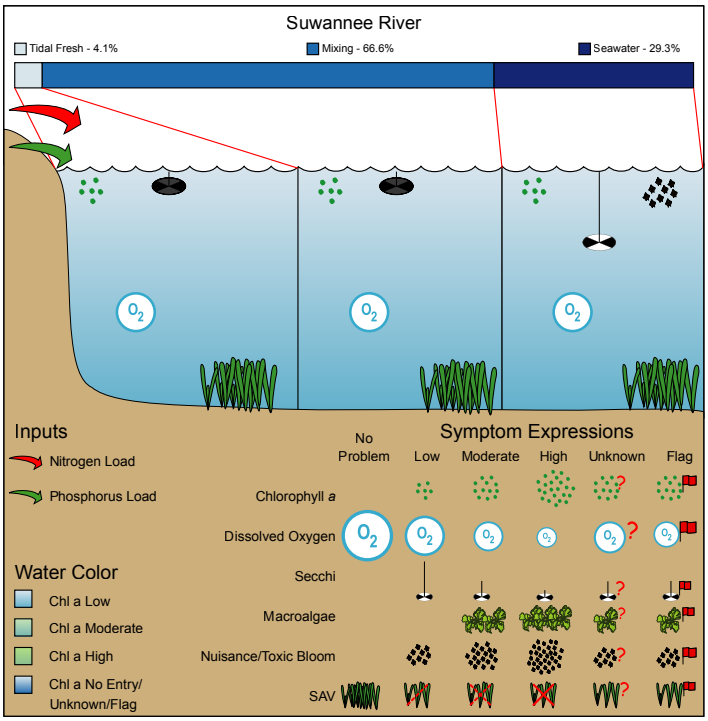
ASSETS Rating

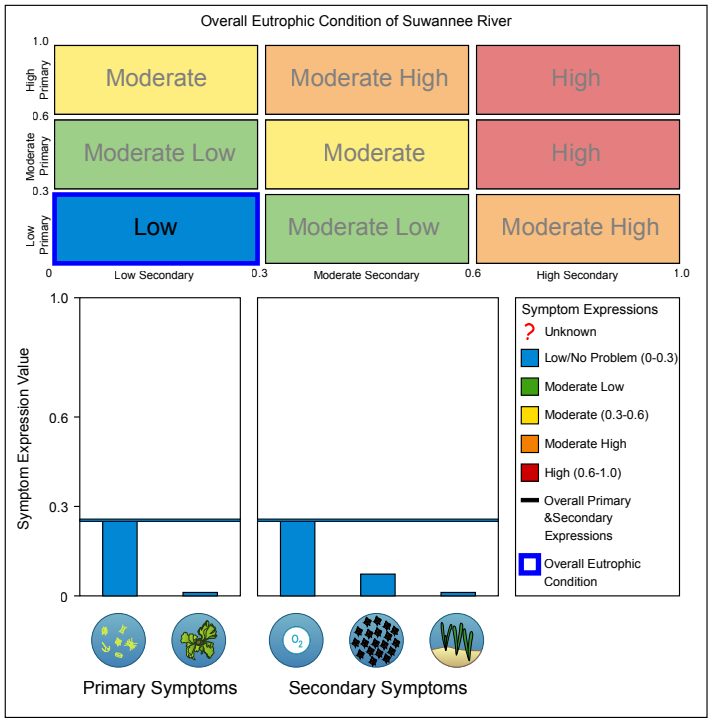
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	165	Urban (km^2)	521 (2%)	Area (km^2)	25,989
Tidal fresh zone area (km^2)	7	Agriculture (km^2)	7,871 (30.5%)	Mean elevation (m)	51
Mixing zone area (km^2)	110	Forest (km^2)	12,820 (49.6%)	Max. elevation (m)	139
Saltwater zone area (km^2)	48	Wetland (km^2)	4,608 (17.8%)	Watershed: estuary ratio	157.5
Volume (1,000 x m^3)	193,050	Range (km^2)	18 (0.1%)	TSS (tonne y^{-1})	175,000
Depth (m)	1.17	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	6,281,347
Tide Height (m)	0.76	Total (km^2)	25,838 (0%)	DIP (kg y^{-1})	871,805
Residence Time (d)	1	Population	417,564	TSS/est. area (tonne km^{-2} y^{-1})	1,061
		Popn: est. area ratio	2,531	DIN/est. area (kg km^{-2} y^{-1})	38,069
				DIP/est. area (kg km^{-2} y^{-1})	5,284

Tampa Bay

SUMMARY

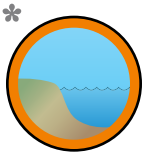
Tampa Bay is characterized by a high chlorophyll-a symptom expression and moderate expression of macroalgae, dissolved oxygen and harmful/toxic algae blooms. Chlorophyll-a concentrations have either decreased or remained stable in the majority of the Bay between 1990 and 2004. A small increases in SAV acreage occurred during this period.

Influencing Factors

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

Eutrophic Conditions **

Primary symptoms high and substantial secondary symptoms becoming more expressed, indicating potentially serious problems.

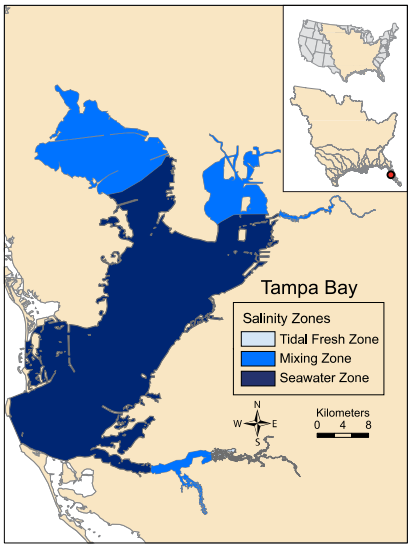


Future Outlook

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

ASSETS Rating

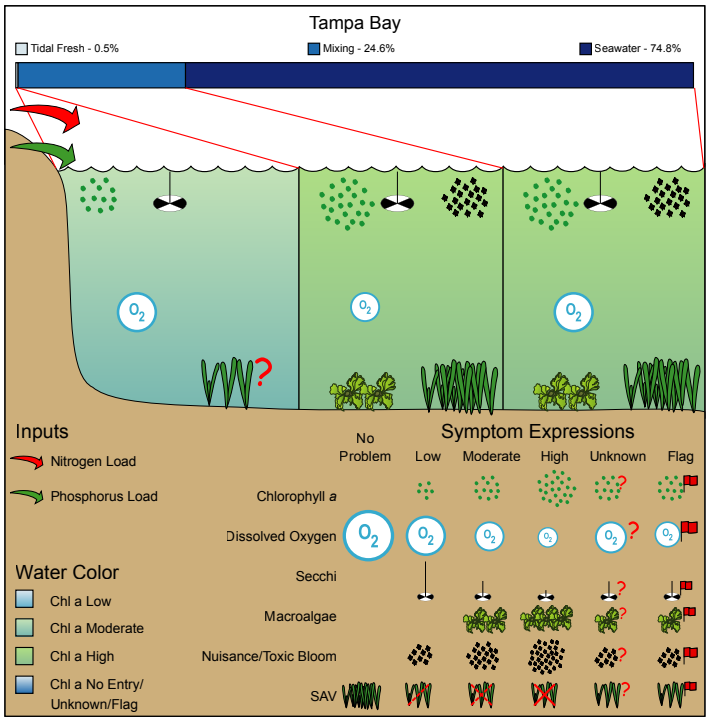
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

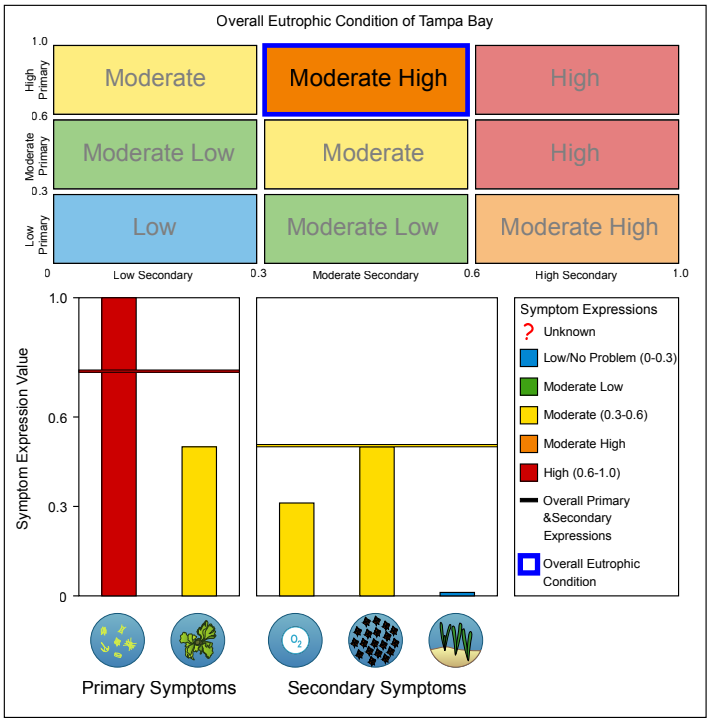


Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





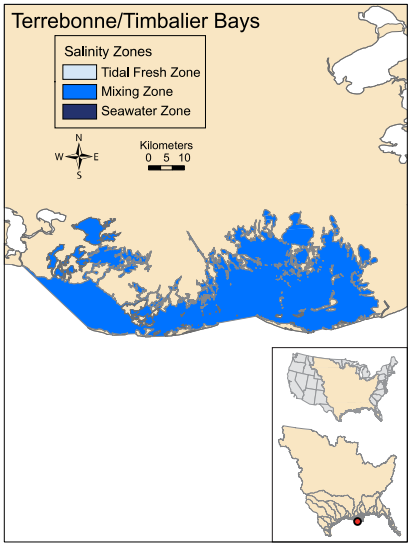
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	902	Urban (km^2)	1,777 (31.8%)	Area (km^2)	5,703
Tidal fresh zone area (km^2)	5	Agriculture (km^2)	1,911 (34.2%)	Mean elevation (m)	22
Mixing zone area (km^2)	222	Forest (km^2)	259 (4.6%)	Max. elevation (m)	76
Saltwater zone area (km^2)	675	Wetland (km^2)	515 (9.2%)	Watershed: estuary ratio	6.3
Volume (1,000 x m^3)	2,706,000	Range (km^2)	1,119 (20%)	TSS (tonne y^{-1})	139,000
Depth (m)	3.00	Barren (km^2)	0 (0%)	TN (kg y^{-1})	3,745,765
Tide Height (m)	0.72	Total (km^2)	5,581 (0%)	TP (kg y^{-1})	1,436,980
Residence Time (d)	9	Population	1,308,800	TSS/est. area (tonne km^{-2} y^{-1})	154
		Popn: est. area ratio	1,451	TN/est. area (kg km^{-2} y^{-1})	4,153
				TP/est. area (kg km^{-2} y^{-1})	1,593

Terrebonne/Timbalier Bays

SUMMARY

While data were inadequate for a full assessment, Terrebone/Timbalier Bays data show no problems with dissolved oxygen. The 1999 assessment reported moderate overall eturophic conditions due to a high chlorophyll-a symptom expression, though other symptoms showed no problems. Nitrogen loads, however, have increased since the 1999 assessment.



Influencing Factors

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

Eutrophic Conditions *

An Unknown Overall Eutrophic Condition expression will occur if either the Primary or Secondary overall symptom expression is Unknown.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

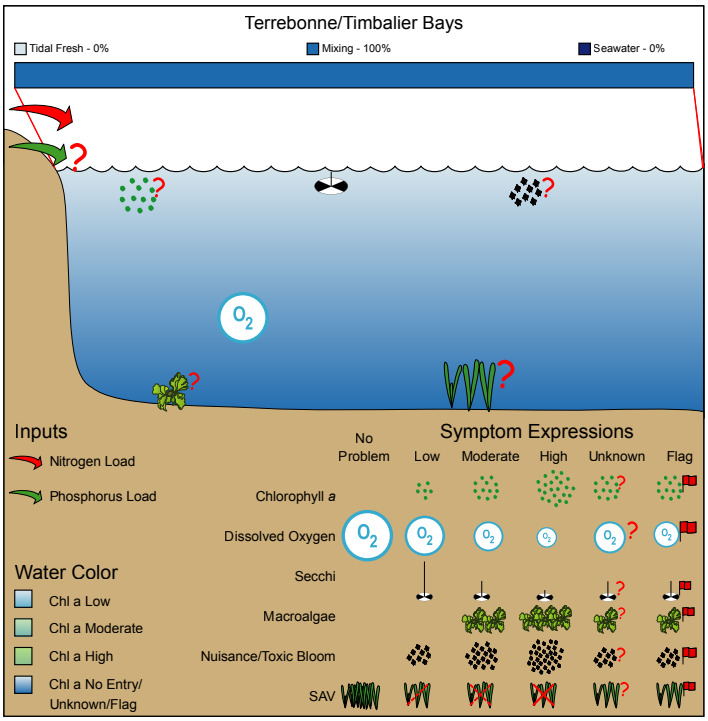
ASSETS Rating

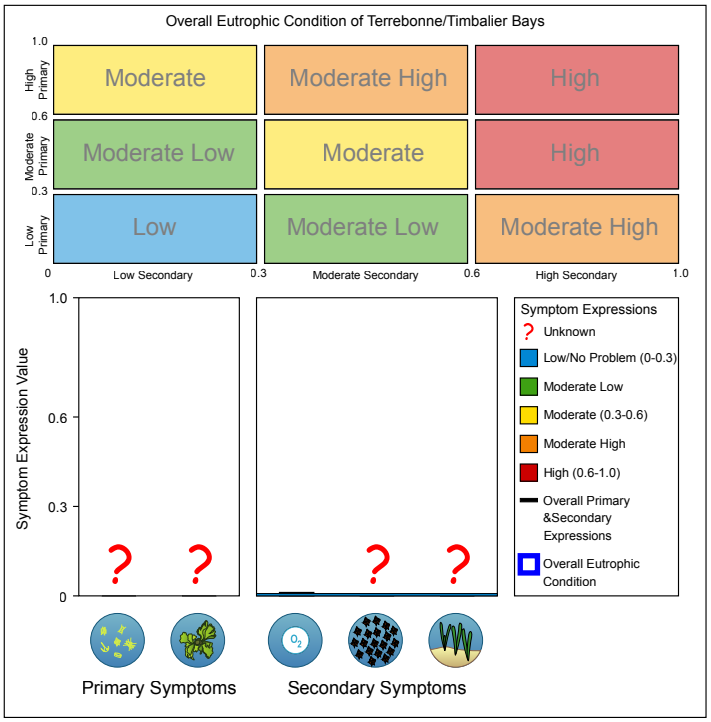
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





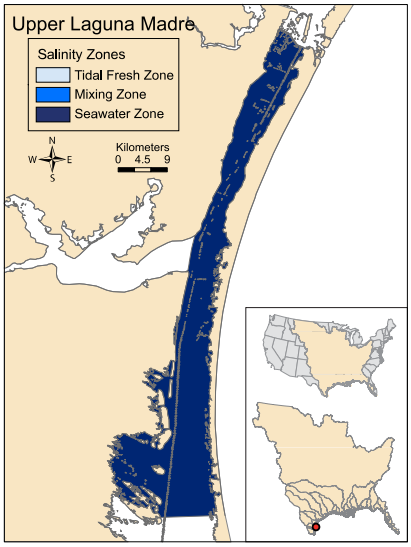
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,262	Urban (km^2)	181 (8.3%)	Area (km^2)	2,633
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	259 (11.9%)	Mean elevation (m)	0
Mixing zone area (km^2)	1,262	Forest (km^2)	5 (0.2%)	Max. elevation (m)	4
Saltwater zone area (km^2)	0	Wetland (km^2)	1,733 (79.5%)	Watershed: estuary ratio	2.1
Volume (1,000 x m^3)	858,160	Range (km^2)	0 (0%)	TSS (tonne y^{-1})	8,080
Depth (m)	0.68	Barren (km^2)	0 (0%)	DIN (kg y^{-1})	990,000
Tide Height (m)	0.40	Total (km^2)	2,178 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	3	Population	109,458	TSS/est. area (tonne km^{-2} y^{-1})	6
		Popn: est. area ratio	87	DIN/est. area (kg km^{-2} y^{-1})	785
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

Upper Laguna Madre

SUMMARY

Upper Laguna Madre estuary is characterized by moderate symptom expressions for chlorophyll-a and nuisance/toxic blooms. These ratings have both decreased from 1999 expressions of high. Nitrogen load has also decreased while phosphorous loads remain unknown. Additional data are needed for an accurate evaluation of this system.



Influencing Factors

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

Eutrophic Conditions *

Level of expression of eutrophic conditions is substantial.

Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

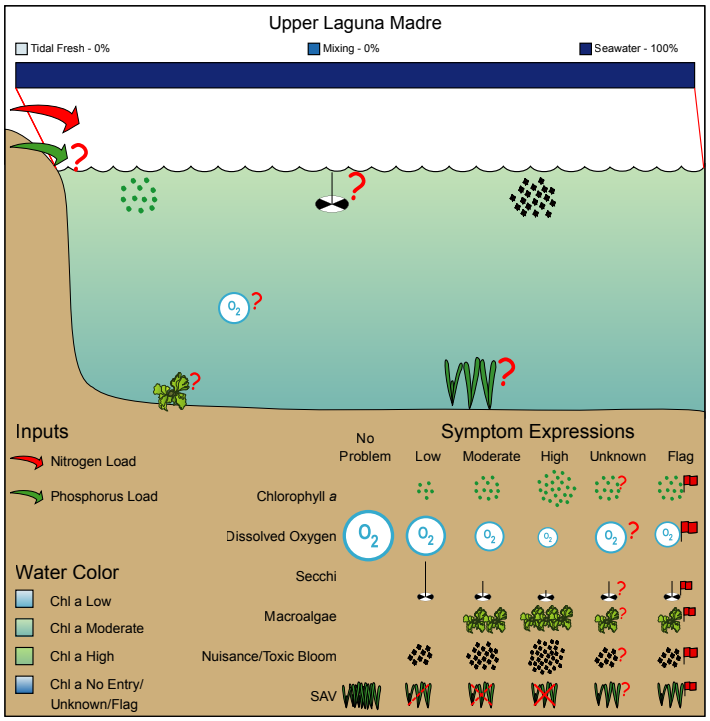
ASSETS Rating

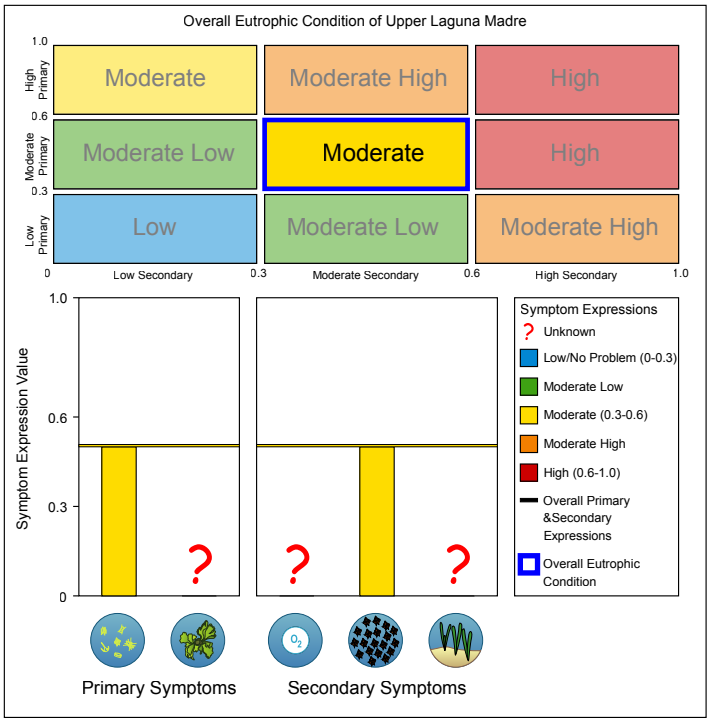
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence				
?	*	**	***	
Unknown	Low	Moderate	High	

EUTROPHIC CONDITION





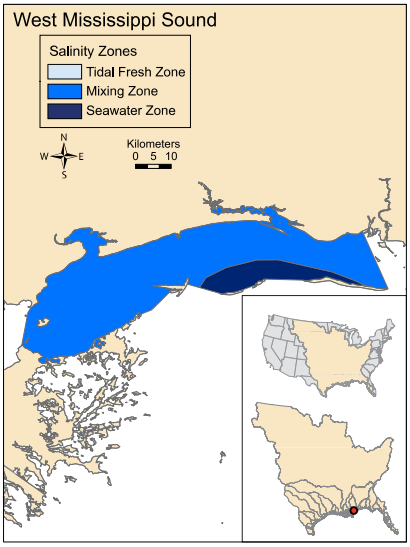
WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	591	Urban (km^2)	290 (2.8%)	Area (km^2)	2,047
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	2,766 (26.3%)	Mean elevation (m)	10
Mixing zone area (km^2)	0	Forest (km^2)	373 (3.5%)	Max. elevation (m)	72
Saltwater zone area (km^2)	591	Wetland (km^2)	282 (2.7%)	Watershed: estuary ratio	3.5
Volume (1,000 x m^3)	200,940	Range (km^2)	6,822 (64.8%)	TSS (tonne y^{-1})	60,200
Depth (m)	0.34	Barren (km^2)	0 (0%)	TN (kg y^{-1})	3,440,000
Tide Height (m)	0.15	Total (km^2)	10,533 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	5	Population	2,128	TSS/est. area (tonne km^{-2} y^{-1})	102
		Popn: est. area ratio	4	TN/est. area (kg km^{-2} y^{-1})	5,821
				DIP/est. area (kg km^{-2} y^{-1})	Unknown

West Mississippi Sound

SUMMARY

West Mississippi Sound is characterized by low symptom expressions for chlorophyll-a and dissolved oxygen. Chlorophyll-a symptom expression has improved since the 1999 assessment. All other water body condition parameters are unknown.

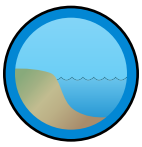


Influencing Factors

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

Eutrophic Conditions *

Level of expression of eutrophic conditions is minimal.



Future Outlook

An Unknown Future Outlook expression will occur if the Expected Changes In Nutrient Load by 2020 is Unknown.

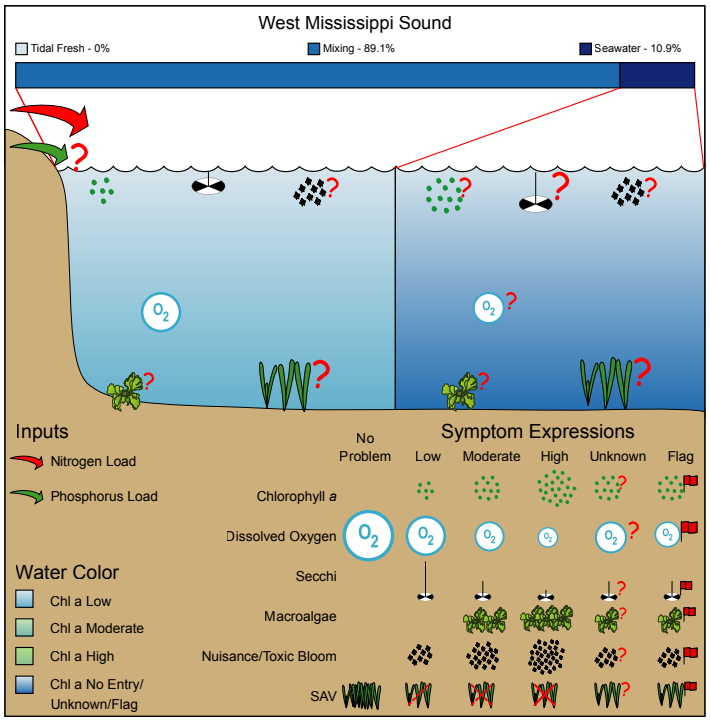
ASSETS Rating

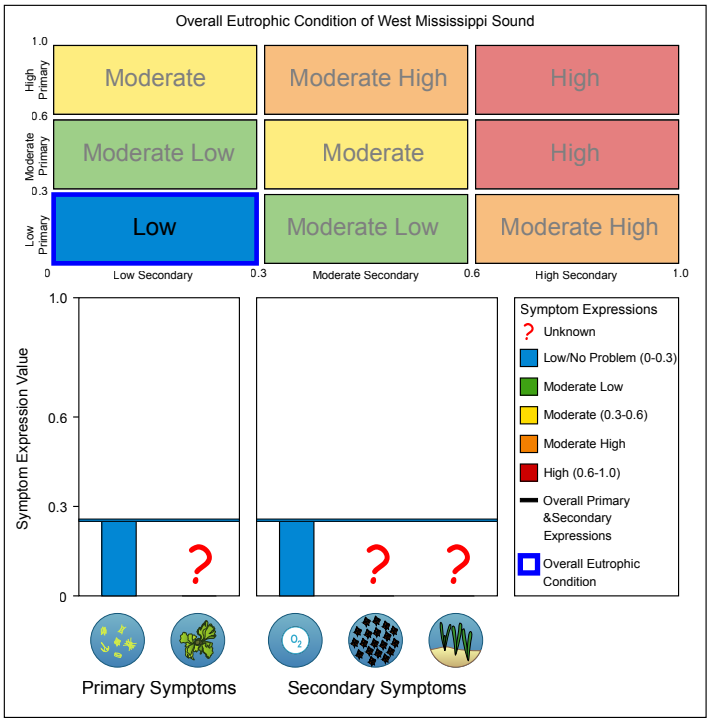
Assessment of Estuarine Trophic Status based on the three factors evaluated in NEEA.

Influence/eutro/future	Unknown	Low	Mod Low	Moderate	Mod High	High
ASSETS	Unknown	High	Good	Moderate	Poor	Bad

Reliability and Confidence: ? Unknown; * Low; ** Moderate; *** High

EUTROPHIC CONDITION





WATERSHED AND ESTUARY CHARACTERISTICS

Estuary		Landuse / Population		Watershed Details / Input Loads	
Area (km^2)	1,581	Urban (km^2)	2,896 (7.4%)	Area (km^2)	4,050
Tidal fresh zone area (km^2)	0	Agriculture (km^2)	10,295 (26.4%)	Mean elevation (m)	33
Mixing zone area (km^2)	1,409	Forest (km^2)	22,963 (58.8%)	Max. elevation (m)	124
Saltwater zone area (km^2)	172	Wetland (km^2)	2,906 (7.4%)	Watershed: estuary ratio	2.6
Volume (1,000 x m^3)	3,841,830	Range (km^2)	10 (0%)	TSS (tonne y^{-1})	563,000
Depth (m)	2.43	Barren (km^2)	0 (0%)	TN (kg y^{-1})	24,930,000
Tide Height (m)	0.51	Total (km^2)	39,070 (0%)	DIP (kg y^{-1})	Unknown
Residence Time (d)	23	Population	215,299	TSS/est. area (tonne km^{-2} y^{-1})	356
		Popn: est. area ratio	136	TN/est. area (kg km^{-2} y^{-1})	15,769
				DIP/est. area (kg km^{-2} y^{-1})	Unknown