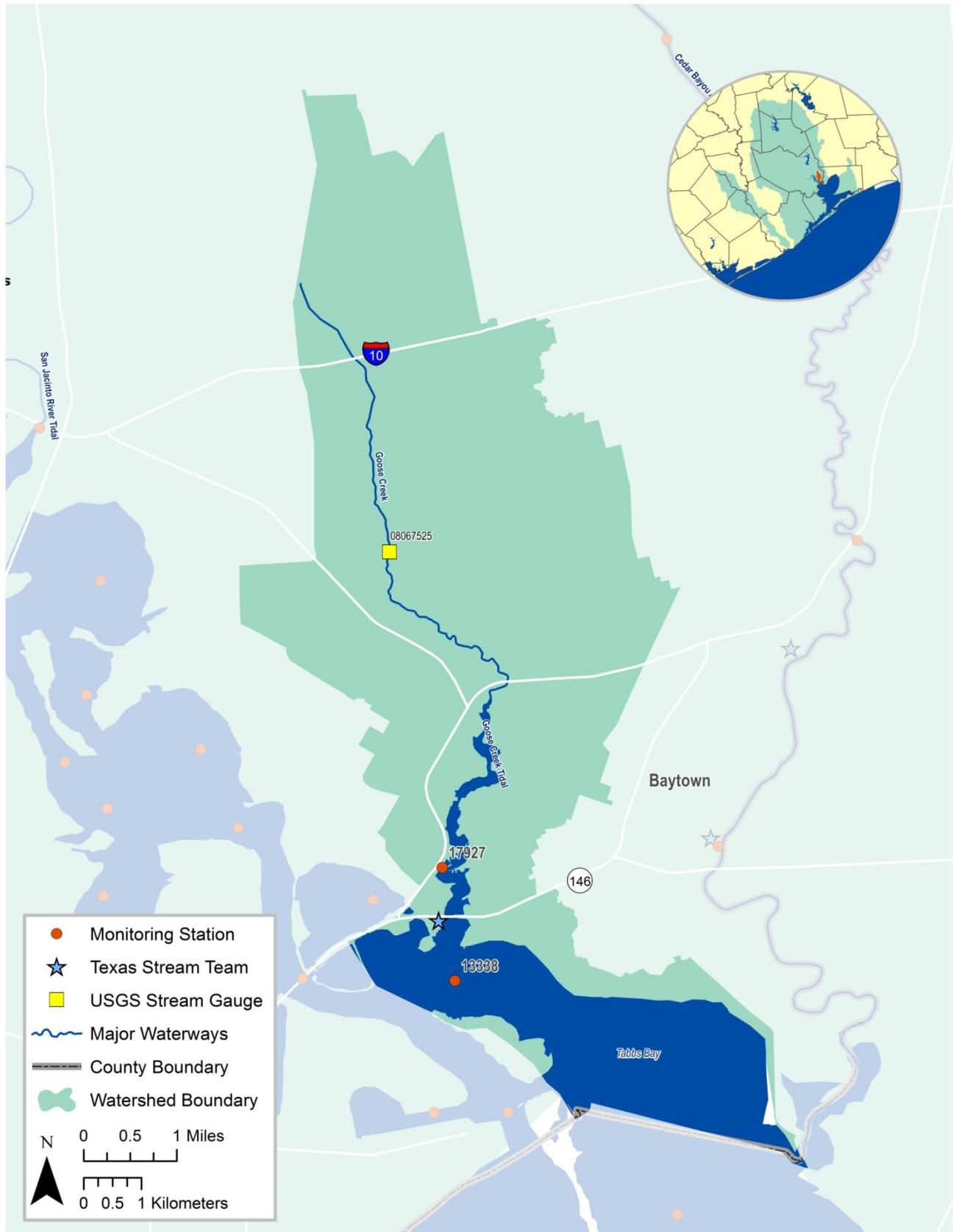
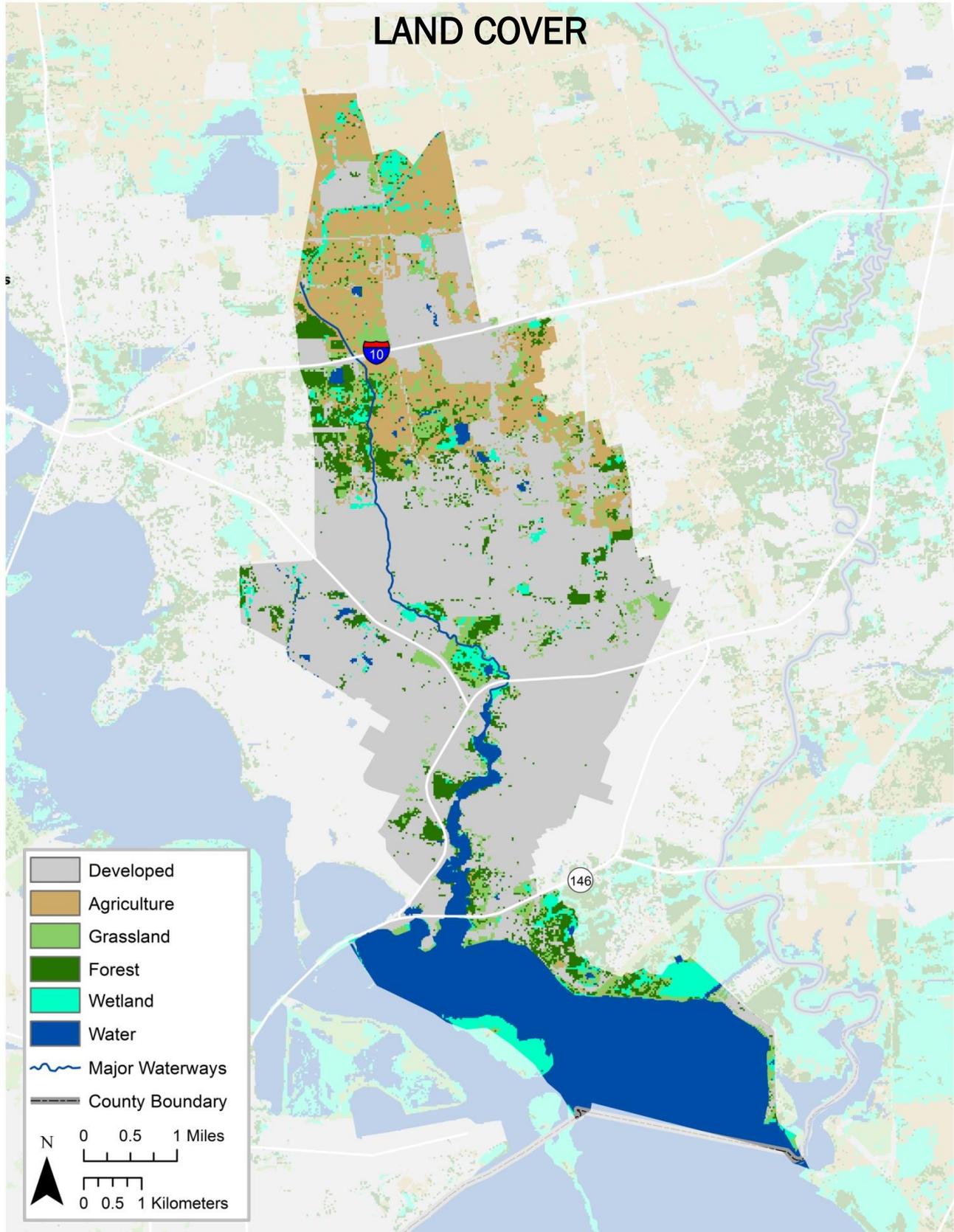


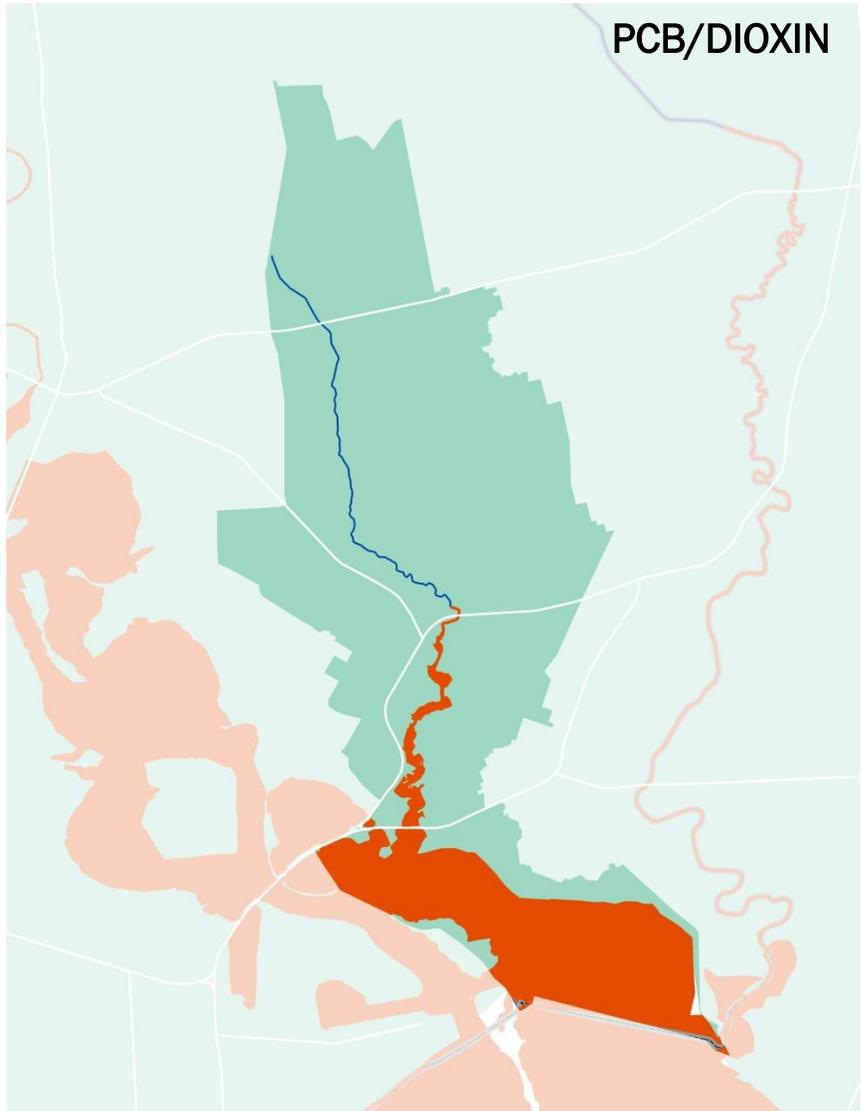
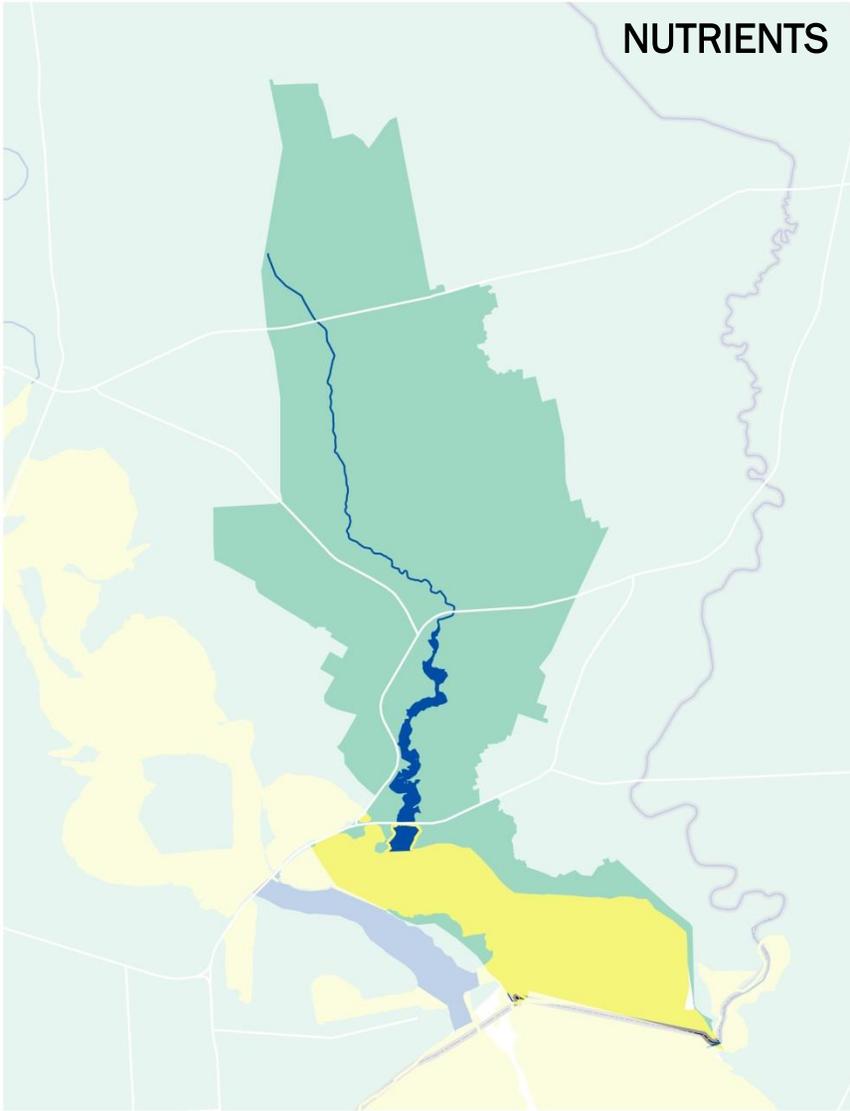
TABBS BAY - SEGMENT 2426



TABBS BAY - SEGMENT 2426

LAND COVER





 Impairment  Concern  No Impairments or Concerns

Segment Number: 2426	Name: Tabbs Bay
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Area: 0.36 square miles	Miles of Shoreline: 4.9 miles	Designated Uses: Primary Contact Recreation 1; High Aquatic Life Use
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Number of Active Monitoring Stations: 2	Texas Stream Team Monitors: 1	Permitted Outfalls: 7
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Description:	Segment 2426: A side bay located east of the Houston Ship Channel/tidal San Jacinto River across from Morgan's Point and south of the City of Baytown
	Segment 2426A (Perennial Stream w/ intermediate ALU): Goose Creek (unclassified water body) – From the confluence of East Fork Goose Creek upstream to the confluence of an unnamed tributary from Highland Reservoir
	Segment 2426B: Goose Creek (Unclassified water body) – Segment description retired
	Segment 2426C (Tidal Stream w/ high ALU): Goose Creek Tidal (unclassified water body) – From the Tabbs Bay confluence upstream to the East Fork of Goose Creek confluence

Percent of Stream Impaired or of Concern

Segment ID	PCBs/Dioxin	Bacteria	Dissolved Oxygen	Nutrients	Chlorophyll a	Other
2426	100	-	-	100	-	-
2426C	100	-	-	-	-	-

Segment 2426

Standards	Screening Levels		
	Bays & Estuaries	Tidal Streams	Perennial Stream
Temperature (°C/°F):	35 / 95	35 / 95	35 / 95
Dissolved Oxygen (24-Hr Average) (mg/L):	4.0	4.0	4.0
Dissolved Oxygen (Absolute Minima) (mg/L):	3.0	3.0	3.0
pH (standard units):	6.5-9.0	6.5-9.0	6.5-9.0
Enterococci (MPN/100mL) (grab):	89	104	104
Enterococci (MPN/100mL) (geometric mean):	35	35	35

Standards	Screening Levels		
	Bays & Estuaries	Tidal Streams	Perennial Stream
Ammonia-N (mg/L):	0.10	0.46	0.33
Nitrate-N (mg/L):	0.17	1.10	1.95
Orthophosphate Phosphorus (mg/L):	0.19	0.46	0.37
Total Phosphorus-P (mg/L):	0.21	0.66	0.69
Chlorophyll a (µg/L):	11.6	21	14.1

FY 2016 Active Monitoring Stations

Site ID	Site Description	Frequency	Monitoring Entity	Parameter Groups
13338	Tabbs Bay near Goose Creek	BI-Monthly	HCPHES	Field, Conventional, Bacteria, Chlorophyll a (Qrtrly)
17927	Goose Creek at SH 146 near Main	Bi-Monthly	HCPHES	Field, Conventional, Bacteria

Water Quality Issues Summary

Issue	2014 Assessment <i>I - Impaired</i> <i>C - Of Concern</i>	Possible Causes / Influences / Concerns Voiced by Stakeholders	Possible Solutions / Actions To Be Taken
Elevated Nutrients	2426 C	<ul style="list-style-type: none"> ▪ Fertilizer runoff from urbanized properties, such as landscaped areas, residential lawns, and sport fields ▪ Agricultural runoff from row crops, fallow fields, and animal operations ▪ Nutrient loading from WWTF effluent, sanitary sewer overflows, and malfunctioning OSSFs 	<ul style="list-style-type: none"> ▪ Implement YardWise and Watersmart landscape practices ▪ Encourage Water Quality Management Plans or similar projects for agricultural properties ▪ Install and/or maintain riparian buffer areas between agricultural fields and waterways ▪ Monitor phosphorus levels at WWTFs to determine if controls are needed
PCBs/Dioxin in Edible Fish Tissue	2426 I 2426C I	<ul style="list-style-type: none"> ▪ Concentrated deposits outside boundaries of the waste pits located adjacent to San Jacinto River and I-10 bridge ▪ Unknown industrial or urban sources 	<ul style="list-style-type: none"> ▪ Remove or contain contamination from locations already identified ▪ Encourage additional testing to locate all unknown sources/deposits

Segment Discussion:

Watershed Characteristics: This watershed includes part of the City of Baytown and drains a large unclassified water body that extends north into the city. The southern part of the watershed is heavily developed with dense residential, commercial and industrial uses. The northern portion of the watershed is more undeveloped and rural with plots of agricultural lands present in the area.

Water Quality Issues: Segment 2426 Tabbs Bay and unclassified segment 2426C Goose Creek Tidal are impaired for fish consumption due to high levels of dioxin and PCBs found in edible fish tissue. The Texas Department of State Health Services issued a Limited Consumption Fish Advisory for these segments.

Additionally Tabbs Bay is listed on the 2014 IR for concerns for water quality based upon screening criteria levels for ammonia nitrogen, nitrate nitrogen, and total phosphorus. According to the sampling data, 57 percent of ammonia nitrogen, 67 percent of nitrate nitrogen, and 76 percent of total phosphorus samples were above screening criteria levels.

Special Studies/Projects: This segment is included in two TMDL projects, the Houston Ship Channel and Upper Galveston Bay TMDL for PCBs in Fish Tissue and the Houston Ship Channel TMDL for Dioxin, which are currently under way. For more information, please refer to the detailed discussions located in the Public Involvement and Outreach section of the 2016 Basin Summary Report regarding dioxin and PCB contamination.

Trends: Regression analysis of water quality data revealed eight statistically significant parameter trends for two of the four assessment units located in the Tabbs Bay segment. Four significant trends were detected for the main Tabbs Bay segment including increasing salinity, specific conductance (SPCond), and total suspended solids (TSS) while ammonia concentrations seem to be decreasing over time. Segment 2426C, Goose Creek Tidal, revealed four increasing trends in salinity, Secchi transparency, SPCond, and total dissolved solids (TDS).

Tabbs Bay is currently listed as having a nutrient concern in the 2014 Integrated Report. Data collection for nutrient concentrations in Tabbs Bay began in 2007. [Nitrate](#) and [total phosphorous \(TP\)](#) levels have remained relatively stable over time with the majority of samples still well above the set screening criteria of 0.17mg/L and 0.21 mg/L, respectively. Additionally, regression analysis of ammonia concentrations revealed a statistically significant increasing trend for the main Tabbs Bay assessment unit during the period of record.

Recommendations

Continue collecting water quality data to support actions associated with any future watershed protection plan development and possible modeling.

Coordinate education efforts with other local TMDL and watershed protection plan efforts.

Pursue a new local partner to Clean Rivers Program to collect additional data that would help better isolate problem areas.

Support additional sampling to investigate sources of elevated dioxin and PCB levels.
