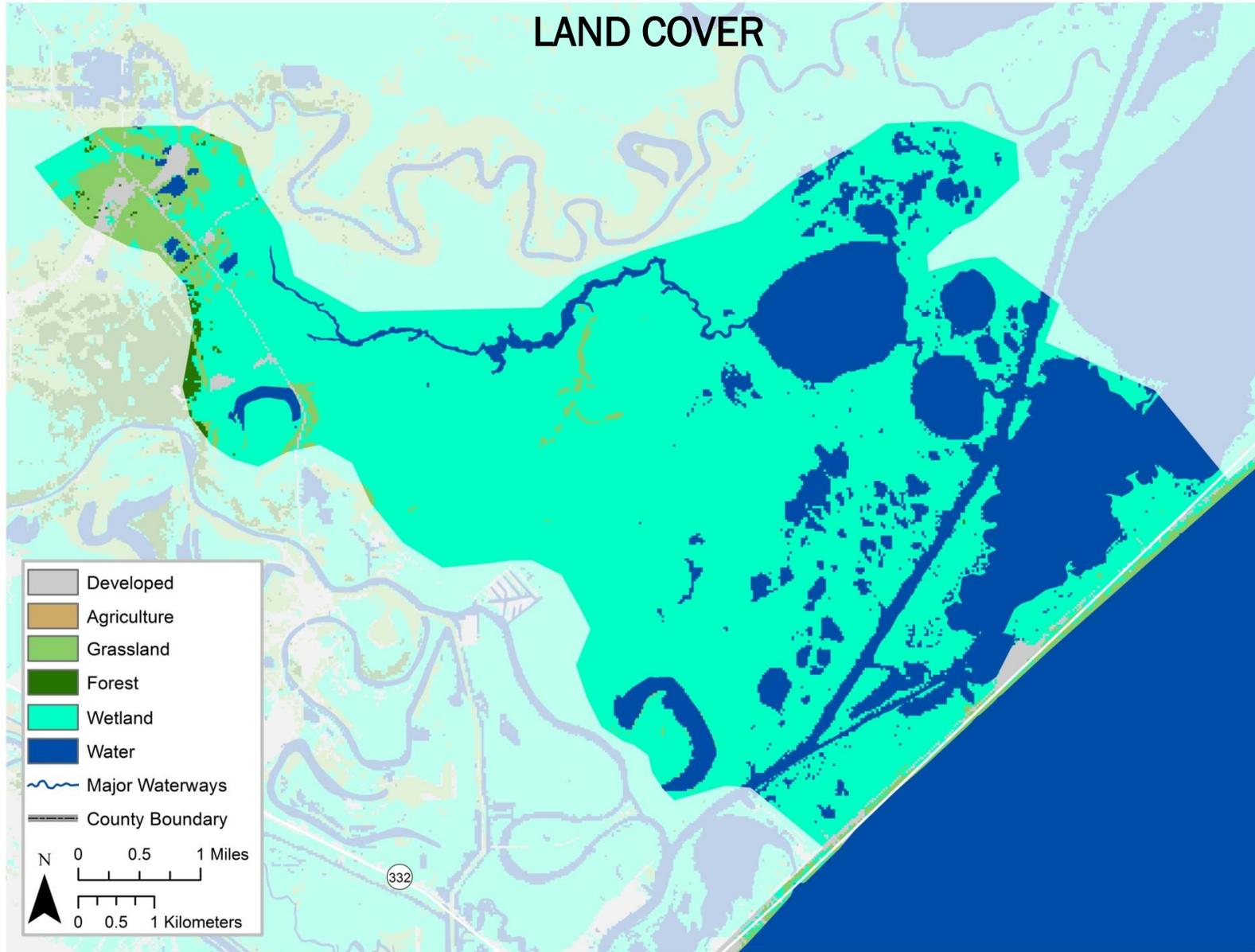


DRUM BAY - SEGMENT 2435



DRUM BAY – SEGMENT 2435

LAND COVER



| | | | | | |
|--|---|------------------------------------|-----------------|----------------------------|--|
| Segment Number: | 2435 | Name: | Drum Bay | | |
| Area: | 2 square miles | Miles of Shoreline: | 12.2 miles | Designated Uses: | Primary Contact Recreation 1; High Aquatic Life Use; Oyster Waters |
| Number of Active Monitoring Stations: | 0 | Texas Stream Team Monitors: | 0 | Permitted Outfalls: | 0 |
| Description: | Segment 2435: Located on the landward side of Follet's Island in Brazoria County extending southwest from the confluence with Christmas Bay, it is connected to the Gulf Intracoastal Waterway via a cut on the far western end and via a cut from the north called Nick's Cut. Segment 2435OW (Oyster Waters) | | | | |

| Percent of Stream Impaired or of Concern | | | | | | |
|--|-------------|----------|------------------|-----------|---------------|-------|
| Segment ID | PCBs/Dioxin | Bacteria | Dissolved Oxygen | Nutrients | Chlorophyll a | Other |
| 2435 | - | - | - | - | - | - |
| 2435OW | - | 100 | - | - | - | - |

| Segment 2435 | | | |
|--|------------------|-----------------------------------|------------------|
| Standards | Bays & Estuaries | Screening Levels | Bays & Estuaries |
| Temperature (°C/°F): | 35 / 95 | Ammonia-N (mg/L): | 0.10 |
| Dissolved Oxygen (24-Hr Average) (mg/L): | 4.0 | Nitrate-N (mg/L): | 0.17 |
| Dissolved Oxygen (Absolute Minima) (mg/L): | 3.0 | Orthophosphate Phosphorus (mg/L): | 0.19 |
| pH (standard units): | 6.5-9.0 | Total Phosphorus-P (mg/L): | 0.21 |
| Enterococci (MPN/100mL) (grab): | 104 | Chlorophyll a (µg/L): | 11.6 |
| Enterococci (MPN/100mL) (geometric mean): | 35 | | |
| Fecal Coliform in Oyster Waters (CFU/100mL) (median/grab): | 14/43 | | |

Water Quality Issues Summary

| Issue | 2014 Assessment | Possible Causes / Influences / Concerns Voiced by Stakeholders | Possible Solutions / Actions To Be Taken |
|--|-----------------|--|---|
| <p>Elevated Levels of Indicator Bacteria in Oyster Waters</p> | <p>24340W </p> | <ul style="list-style-type: none"> ▪ Animal waste from cattle grazing ▪ Developments with malfunctioning OSSFs ▪ Year-round and migratory bird populations ▪ Improper or no pet waste disposal ▪ Waste haulers illegal discharges/improper disposal ▪ Direct and dry weather discharges ▪ Poorly operated or undersized WWTFs | <ul style="list-style-type: none"> ▪ Implement stream fencing or alternative water supplies to keep livestock out of or away from waterways ▪ Encourage Water Quality Management Plans or similar projects for agricultural properties ▪ Install and/or conserve vegetative buffer areas along all waterways ▪ Improve construction oversight to minimize TSS discharges to waterways ▪ Add water quality features to stormwater systems ▪ More public education regarding OSSF operation and maintenance ▪ Ensure proper citing of new or replacement OSSFs ▪ More public education on pet waste disposal ▪ Regionalize chronically non-compliant WWTFs |

Segment Discussion:

Watershed Characteristics: Drum Bay is located on the landward side of Follet's Island in Brazoria County and extends southwest from its confluence with Christmas Bay. It is connected to the Gulf Intracoastal Waterway via a cut on the far western end and on the north shore via two shallow washovers. The area is surrounded by herbaceous wetlands and by the Brazoria National Wildlife Refuge.

Water Quality Issues: Assessment unit 2435OW_01, which is the area of the bay adjacent to Christmas Bay, is listed in the 2014 IR as impaired for oyster waters due to elevated levels of fecal coliform bacteria. This area is closed by the Seafood Safety Division of the Texas Department of State Health Services for the harvesting of oysters and other shellfish for direct marketing. This segment fully supports the primary contact and high aquatic life use designations.

Special Studies/Projects: Drum Bay is included in the Oyster Waters I-Plan for bacteria which began in 2010 after the TMDL was approved by the EPA. The final draft I-Plan was submitted to the TCEQ in August of 2014 and final approval of the draft was given in August of 2015. For more information about the project, please refer to the detailed discussion located in the Public Involvement and Outreach section of the 2016 Basin Summary Report.

Trends: The most recent routine monitoring data in the TCEQ database was collected in 2001. Water quality trends in this watershed were not evaluated.

Recommendations

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

Look for a Clean Rivers Program partner to begin routine monitoring at least in Nick's Cut since there has been no regular sampling since 2001.
