

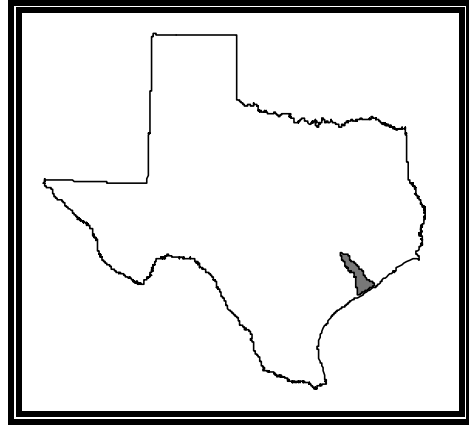
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Basin 13

Brazos–Colorado Coastal



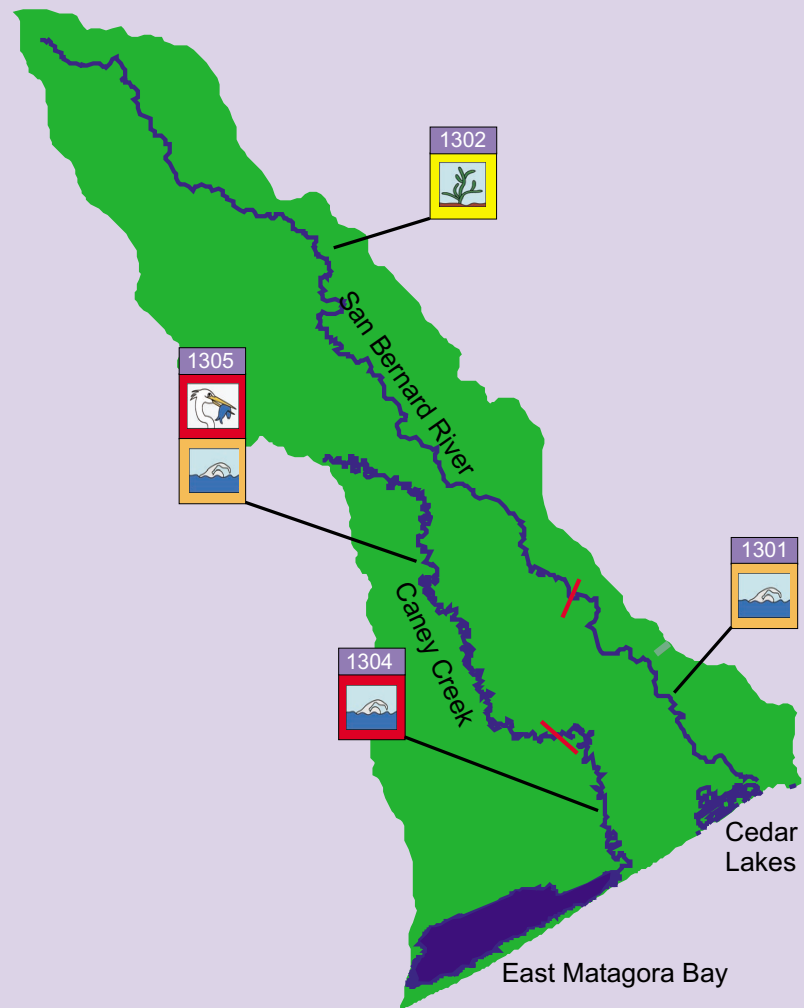
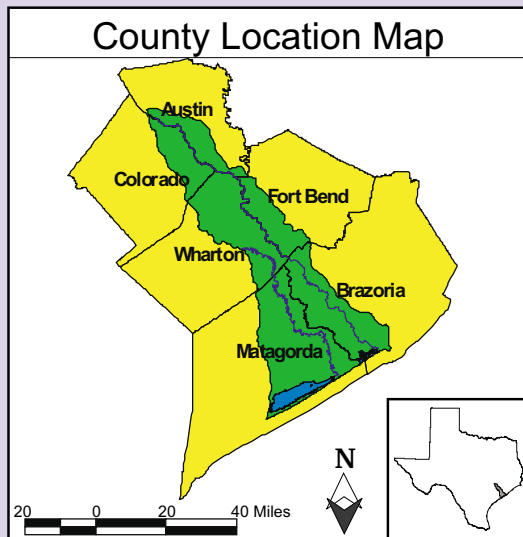
Brazos–Colorado Coastal Basin Narrative Summary

The Brazos–Colorado Coastal Basin is a flat coastal plain between the Brazos and Colorado Rivers. The San Bernard River and Caney Creek are the principal streams in the basin. Linnville Bayou is an unclassified water body of significant use which flows into the tidal portion of Caney Creek. The total basin drainage area is 1,850 square miles. The basin has been divided into four stream segments for water quality monitoring purposes, which include 270 stream miles.

Elevated fecal coliform levels cause nonsupport of the contact recreation use in the tidal portion of Caney Creek and Linnville Bayou. Depressed dissolved oxygen levels cause nonsupport of the aquatic life use on the above tidal portion of Caney Creek. Elevated water temperatures caused a partial support of the general water quality use in the above tidal portion of the San Bernard River.

The TSWQS extended the segment boundary of the tidal portion of Caney Creek upstream of Linnville Bayou. The boundary move more accurately reflects actual tidal influence.

Brazos-Colorado Coastal Basin Identified Water Quality Issues




Brazos–Colorado Coastal Basin Graphical Summary

| Basin Map | Water Bodies | | | | | | | | | |
|-------------------------------|---|---|-----------------------------------|----------------------------------|---|--|--|--|--|--|
| | Segment 1301 San Bernard River Tidal | Segment 1302 San Bernard River Above Tidal | Segment 1304 Caney Creek Tidal | Segment 1304A Linnville Bayou | Segment 1305 Caney Creek Above Tidal | | | | | |
| DESIGNATED USE SUPPORT | | | | | | | | | | |
| Contact Recreation | NA | S | N | N | NA | | | | | |
| Noncontact Recreation | X | X | X | X | X | | | | | |
| Public Water Supply | X | S | X | X | X | | | | | |
| Fish Consumption | | | | | | | | | | |
| Human Health | NA | NA | NA | S | NA | | | | | |
| Advisories/Closures | NA | NA | NA | NA | NA | | | | | |
| Aquatic Life | | | | | | | | | | |
| Dissolved Oxygen (Grab) | S | S | S | S | N | | | | | |
| Dissolved Oxygen (24-Hour) | NA | NA | NA | NA | NA | | | | | |
| Metals in Water | NA | NA | NA | NA | NA | | | | | |
| Organics in Water | NA | NA | NA | NA | NA | | | | | |
| Water Toxicity Tests | NA | NA | NA | S | NA | | | | | |
| Sediment Toxicity Tests | NA | NA | NA | S | NA | | | | | |
| Macrobenthos | NA | NA | NA | NA | NA | | | | | |
| Fish | NA | NA | NA | NA | NA | | | | | |
| GENERAL USE SUPPORT | | | | | | | | | | |
| Water Temperature | S | P | S | X | S | | | | | |
| pH | S | S | S | X | S | | | | | |
| Chloride | X | S | X | X | S | | | | | |
| Sulfate | X | S | X | X | S | | | | | |
| Total Dissolved Solids | X | S | X | X | S | | | | | |

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
 NA = Not Assessed; X = Not Applicable

Brazos–Colorado Coastal Basin Graphical Summary (continued)

| Basin Map | Water Bodies | | | | | | | | | |
|---|---|---|-----------------------------------|----------------------------------|---|--|--|--|--|--|
| | Segment 1301 San Bernard River Tidal | Segment 1302 San Bernard River Above Tidal | Segment 1304 Caney Creek Tidal | Segment 1304A Linnville Bayou | Segment 1305 Caney Creek Above Tidal | | | | | |
|  | | | | | | | | | | |
| WATER QUALITY CONCERNS | | | | | | | | | | |
| Contact Recreation | C | X | X | X | C | | | | | |
| Noncontact Recreation | X | X | X | X | X | | | | | |
| Fish Tissue | NA | NA | NA | NA | NA | | | | | |
| Sediment | NA | NA | NA | NA | NA | | | | | |
| Narrative | NC | NC | NC | NC | NC | | | | | |
| Nutrient Enrichment | | | | | | | | | | |
| Ammonia Nitrogen | NC | NC | NC | NC | NC | | | | | |
| Nitrite + Nitrate Nitrogen | NC | NC | NC | NC | NA | | | | | |
| Orthophosphorus | NC | NC | NC | NC | NA | | | | | |
| Total Phosphorus | NC | NC | NC | NC | NC | | | | | |
| Chlorophyll <i>a</i> | NC | NC | NC | NC | NC | | | | | |
| Public Water Supply | | | | | | | | | | |
| Finished Water Chloride | X | NC | X | X | X | | | | | |
| Finished Water Sulfate | X | NC | X | X | X | | | | | |
| Finished Water TDS | X | NC | X | X | X | | | | | |
| Surface Water Chloride | X | NC | X | X | X | | | | | |
| Surface Water Sulfate | X | NC | X | X | X | | | | | |
| Surface Water TDS | X | NC | X | X | X | | | | | |
| Aquatic Life | | | | | | | | | | |
| Dissolved Oxygen | X | X | X | X | X | | | | | |
| Metals in Water | NA | NA | NA | NA | NA | | | | | |
| Organics in Water | NA | NA | NA | NA | NA | | | | | |
| Water Toxicity Tests | NA | NA | NA | X | NA | | | | | |
| Sediment Toxicity Tests | NA | NA | NA | X | NA | | | | | |

Brazos–Colorado Coastal Basin

Segment 1301 - San Bernard River Tidal

Water body description: From the confluence with the Intracoastal Waterway in Brazoria County to a point 3.2 km (2.0 miles) upstream of SH 35 in Brazoria County

Water body classification: Classified

Water body type: Tidal Stream

Water body length / area: 33.00 Miles

Use support summary: Available data indicate that the aquatic life and general uses are supported in the lower 25 miles. The contact recreation and fish consumption uses were not assessed due to insufficient data.

Water quality concerns summary: Elevated fecal coliform densities cause contact recreation concerns.

Monitoring sites used in the assessment

| Station | Station Description |
|---------|---|
| 12146 | San Bernard River Tidal at Churchill Bridge (FM 2611) |

Wastewater dischargers

| Permit type | Number of outfalls |
|-------------|--------------------|
| Domestic | 5 |

Historical fish kills

| Start date | Location | Fish killed | Suspected cause |
|------------|--|-------------|----------------------|
| 07/08/1995 | San Bernard River, for 5 miles and North Kendleton Bridge | 40 | Unknown |
| 09/24/1997 | Bernard Acres subdivision approximately one mile north of ICWW | 100,000 | Low Dissolved Oxygen |

Brazos–Colorado Coastal Basin

Segment 1302 - San Bernard River Above Tidal

Water body description: From a point 3.2 km (2.0 miles) upstream of SH 35 in Brazoria County to the county road southeast of New Ulm in Austin County

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 107.00 Miles

Use support summary: General uses are partially supported due to elevated water temperature in the upper 50 miles. The aquatic life, contact recreation, and public water supply uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Additional information: A project is scheduled for water temperature to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program.

For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

| Station | Station Description |
|---------|---|
| 12147 | San Bernard River Bridge at FM 442 SW of Needville |
| 15272 | San Bernard River at FM 1301, 7 mi. west of West Columbia |

Wastewater dischargers

| Permit type | Number of outfalls |
|-------------|--------------------|
| Agriculture | 1 |
| Domestic | 12 |
| Industrial | 10 |

Historical fish kills

| Start date | Location | Fish killed | Suspected cause |
|------------|-----------------------|-------------|-----------------|
| 07/03/1996 | Possible Private pond | 1,000 | Unknown |

Brazos–Colorado Coastal Basin

Segment 1304 - Caney Creek Tidal

Water body description: From the confluence with the Intracoastal Waterway in Matagorda County to a point 1.9 km (1.2 miles) upstream of the confluence of Linnville Bayou in Matagorda County

Water body classification: Classified

Water body type: Tidal Stream

Water body length / area: 32.00 Miles

Use support summary: The contact recreation use is not supported due to elevated fecal coliform densities. The aquatic life and general uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Additional information: A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

| Station | Station Description |
|---------|--|
| 12148 | Caney Creek Tidal at Chambliss Rd. |
| 12151 | Caney Creek at wooden Bridge, 200 yards below Linville Bayou confluence adjacent to FM 521 |

Wastewater dischargers

| Permit type | Number of outfalls |
|-------------|--------------------|
| Domestic | 5 |
| Industrial | 10 |

Historical fish kills

| Start date | Location | Fish killed | Suspected cause |
|------------|---|-------------|----------------------|
| 10/20/1994 | North of Intercoastal into Linnville Bayou | 1,000,000 | Unknown |
| 09/23/1997 | Caney Creek tidal downstream of FM 457 bridge | 500,000 | Low Dissolved Oxygen |

Brazos–Colorado Coastal Basin

Segment 1304A - Linnville Bayou (unclassified water body)

Water body description: From the confluence of Caney Creek southeast of Bay City in Matagorda County to the upstream perennial portion of the stream southeast of Wharton in Wharton County

Water body classification: Unclassified

Water body type: Freshwater Stream

Water body length / area: 23.00 Miles

Use support summary: The contact recreation use is not supported due to elevated fecal coliform densities. The aquatic life and fish consumption uses are supported.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Additional information: A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

| Station | Station Description |
|---------|---|
| 12141 | Linnville Bayou at FM 324 (Hasema Road) |
| 12145 | Linnville Bayou at SH 35, west of Old Ocean |

Published studies

| Publication | Date | Author |
|--------------------------|-----------|----------------------|
| AS-17/SR Linnville Bayou | Feb. 1994 | Kolbe, C (Region 12) |

Brazos–Colorado Coastal Basin

Segment 1305 - Caney Creek Above Tidal

Water body description: From a point 1.9 km (1.2 miles) upstream of the confluence of Linnville Bayou in Matagorda County to Old Caney Road in Wharton County

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 98.00 Miles

Use support summary: The aquatic life use is not supported due to depressed dissolved oxygen concentrations in a 25-mile reach centering on SH 35. General uses are supported. The contact recreation and fish consumption uses are not assessed due to insufficient data.

Water quality concerns summary: Elevated fecal coliform densities cause contact recreation concerns.

Additional information: A project is scheduled for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at www.tnrcc.state.tx.us/water/quality/tmdl/.

Monitoring sites used in the assessment

| Station | Station Description |
|---------|---|
| 12154 | Caney Creek at SH 35, 3.75 km NE of Van Vleck |

Published studies

| Publication | Date | Author |
|--------------------|-----------|-----------|
| IMS 36 Caney Creek | Aug. 1975 | Ezell, C. |

Wastewater dischargers

| Permit type | Number of outfalls |
|-------------|--------------------|
| Agriculture | 5 |
| Domestic | 8 |