Brazos River Authority

Updated Water Bodies Not Meeting State Criteria and FY2017 Proposed Monitoring

Presented by
Jenna Olson
Water Quality Programs

Meeting Date: April 14, 2016

Impairments - Basin Overview

In the 2014 IR:

Out of a total of 336 waterbody assessment units (AUs) evaluated…

- 105 waterbody AUs are listed as impaired on the draft 2014 303(d) List (≈31%)
- 78 waterbody AUs are listed as impaired for elevated bacteria (≈23%)
- 9 waterbody AUs are listed for dissolved oxygen Impairment (≈ 3%)
- 12 waterbody AUs are listed as impaired for chloride, sulfate and/or TDS (≈ 4%)
- 193 waterbody AUs are identified as having concerns based on screening levels for algal growth and/or elevated nutrients (≈ 57%)
- 4 waterbody AUs were added to the impaired list and 14 waterbody AUs were de-listed

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General Monitoring Strategy for FY 2017

- Maintain current routine monitoring effort throughout the Basin.
  - There is potential to add additional stations if they can be incorporated into our current run schedule
- BRA will continue instream flow based biological monitoring in support of the BRA's Water Management Plan Environmental Studies
- BRA will complete collection of 24-hour DO data as well as an Aquatic Life Assessment in the Navasota River Watershed.

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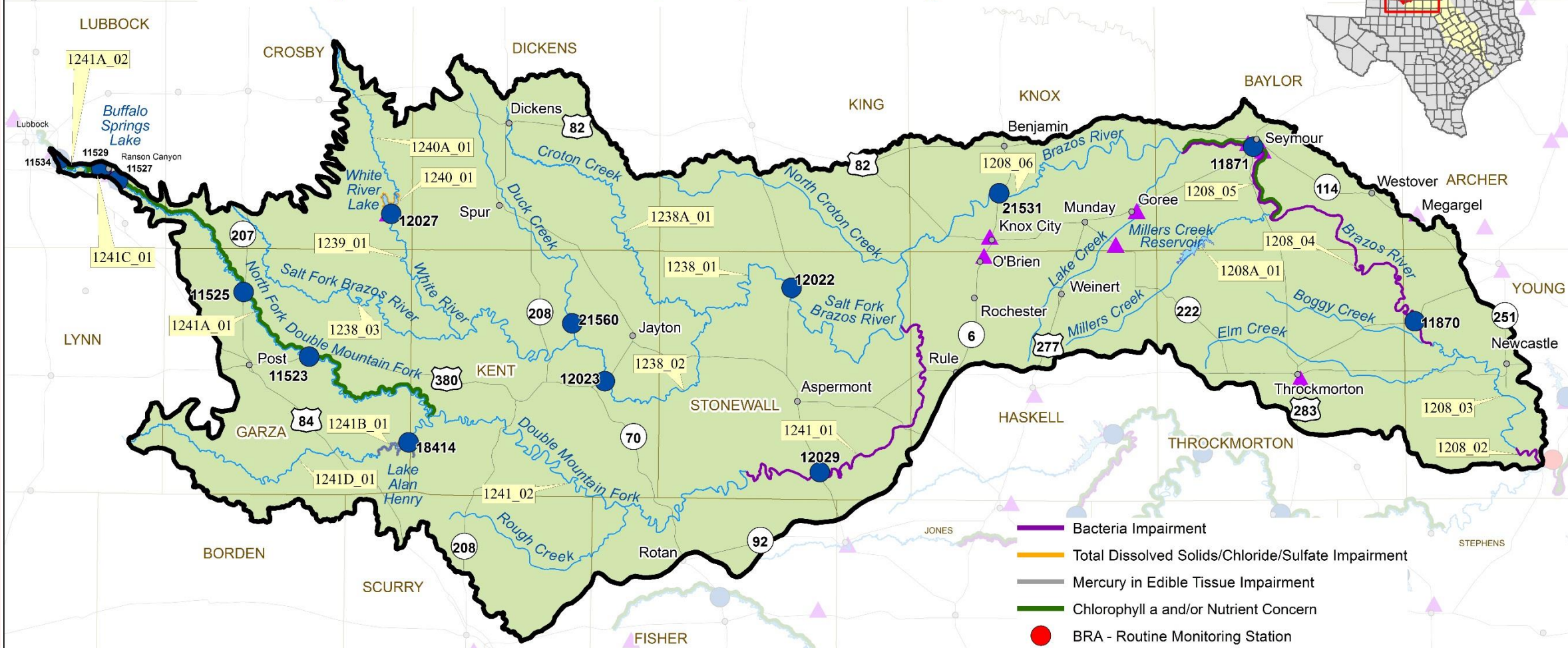
Watershed of the Salt and Double Mountain Forks of the Brazos River
Proposed FY17 Water Quality Monitoring and 2014 IR Status



➢4 Bacteria (1241A_02 removed) – 1 TDS/Chloride – 1 Mercury – 4 Nutrient/Chl *a*

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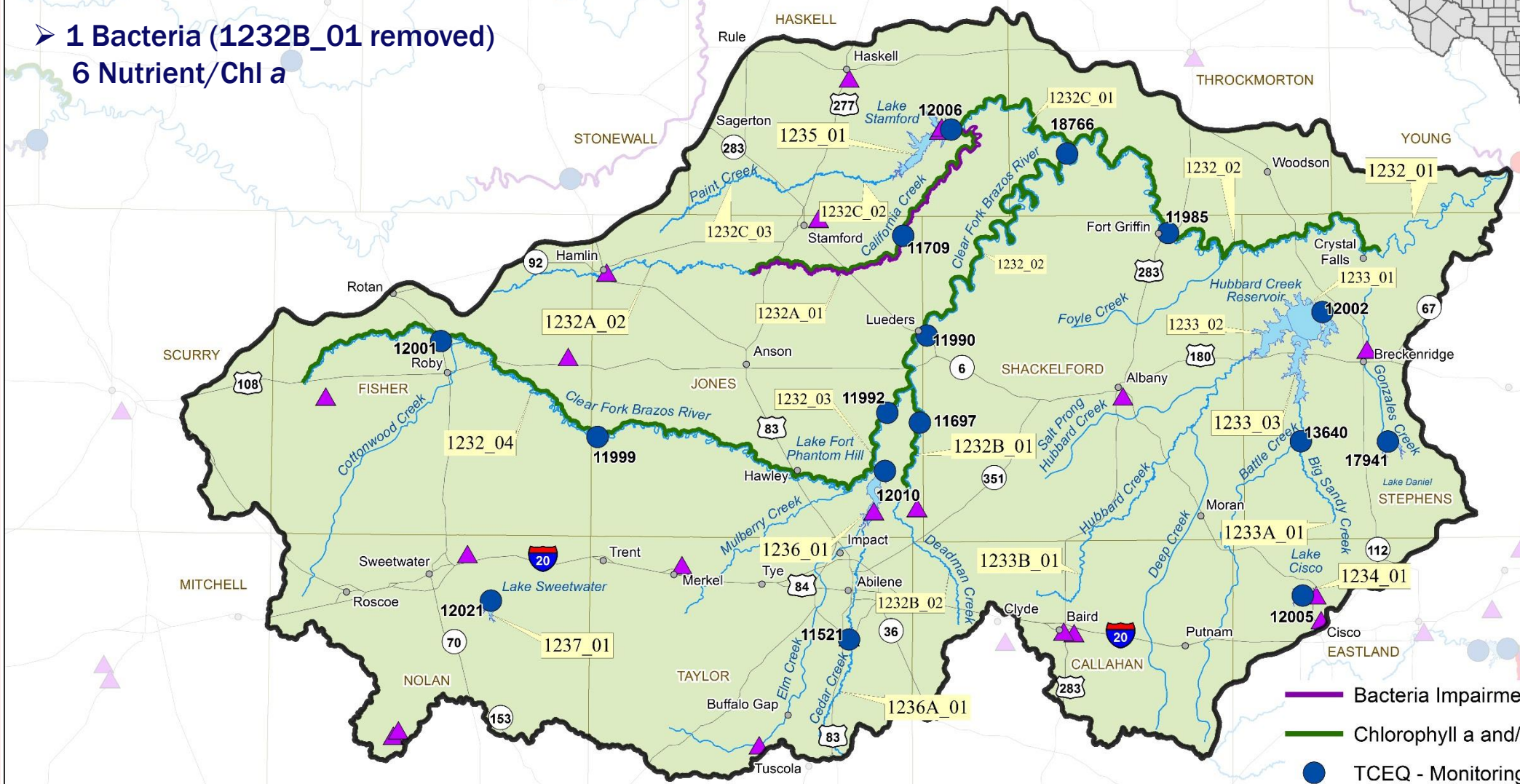
Watershed of the Clear Fork of the Brazos River
Proposed FY17 Water Quality Monitoring and 2014 IR Status

- 1 Bacteria (1232B_01 removed)
  6 Nutrient/Chl *a*



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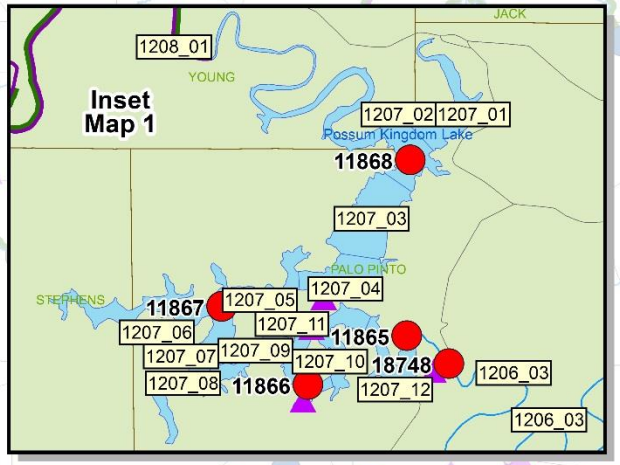
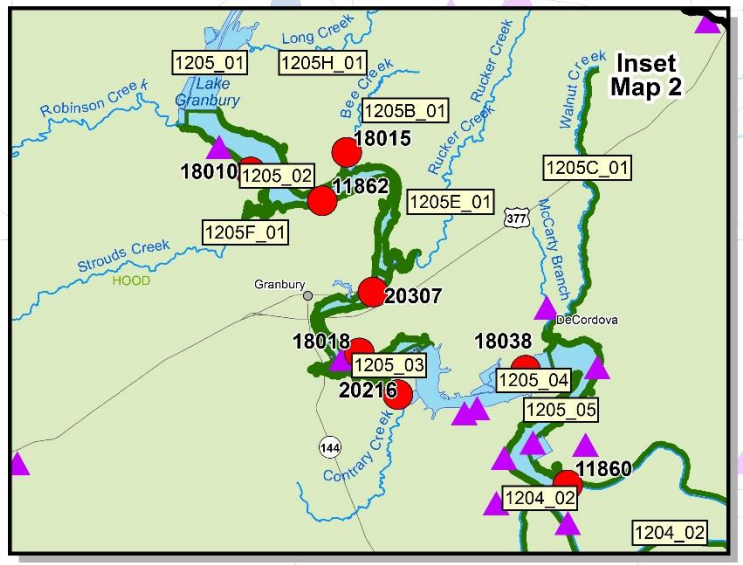
Upper Watershed of the Brazos River Proposed FY17 Water Quality Monitoring and 2014 IR Status

- 2 Bacteria
  1 TDS/Sulfate
  16 Nutrient/Chl *a*





- Lake Granbury Watershed Protection Plan Implementation

- Two WMP Environmental Study stations: **11864 Brazos at FM 4 near Palo Pinto** and **21486 Brazos River 11.1 km upstream from US 67 NE of Glen Rose**

- Bacteria Impairment
- Total Dissolved Solids/Sulfate Impairment
- Chlorophyll a and/or Nutrient Concern
- BRA - Routine Monitoring Station
- TCEQ - Monitoring Station
- BRA - Instream Flow Station
- Wastewater Outfall
- Watershed Boundary

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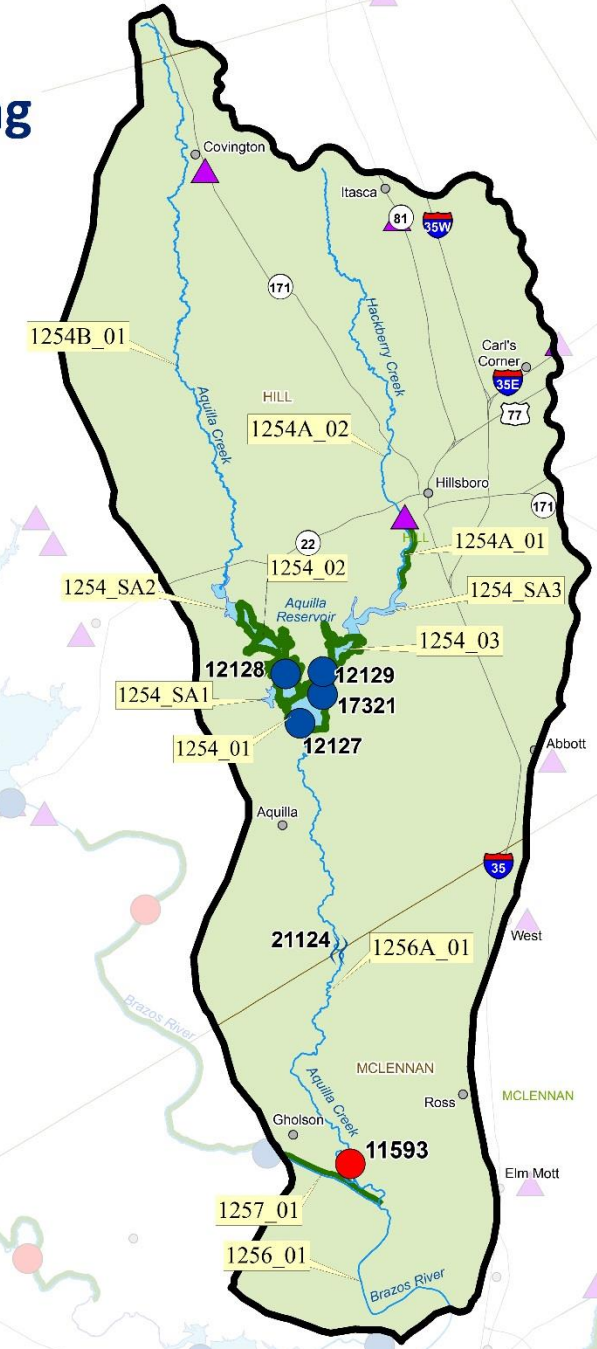
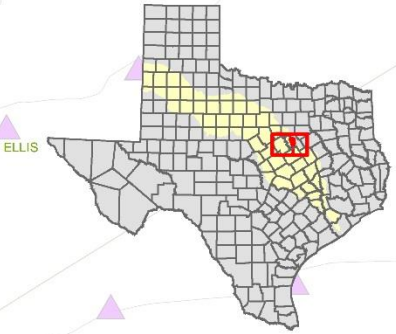
Aquilla Creek Watershed
Proposed FY17 Water Quality Monitoring and 2014 IR Status

- No impairments in this watershed
- 4 Nutrient/Chl *a*
- One WMP Environmental Study station: **21124 Aquilla Creek at FM 2114 near Aquilla**





- Chlorophyll a and/or Nutrient Concern
- BRA - Routine Monitoring Station
- TCEQ - Monitoring Station
- BRA - Instream Flow Station
- Legend Wastewater Outfall
- Watershed Boundary

0 5 10 Miles

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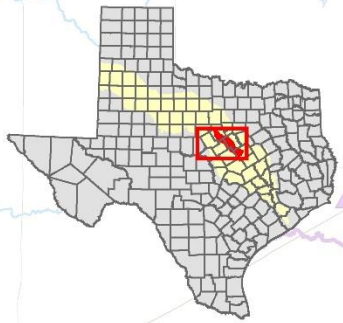
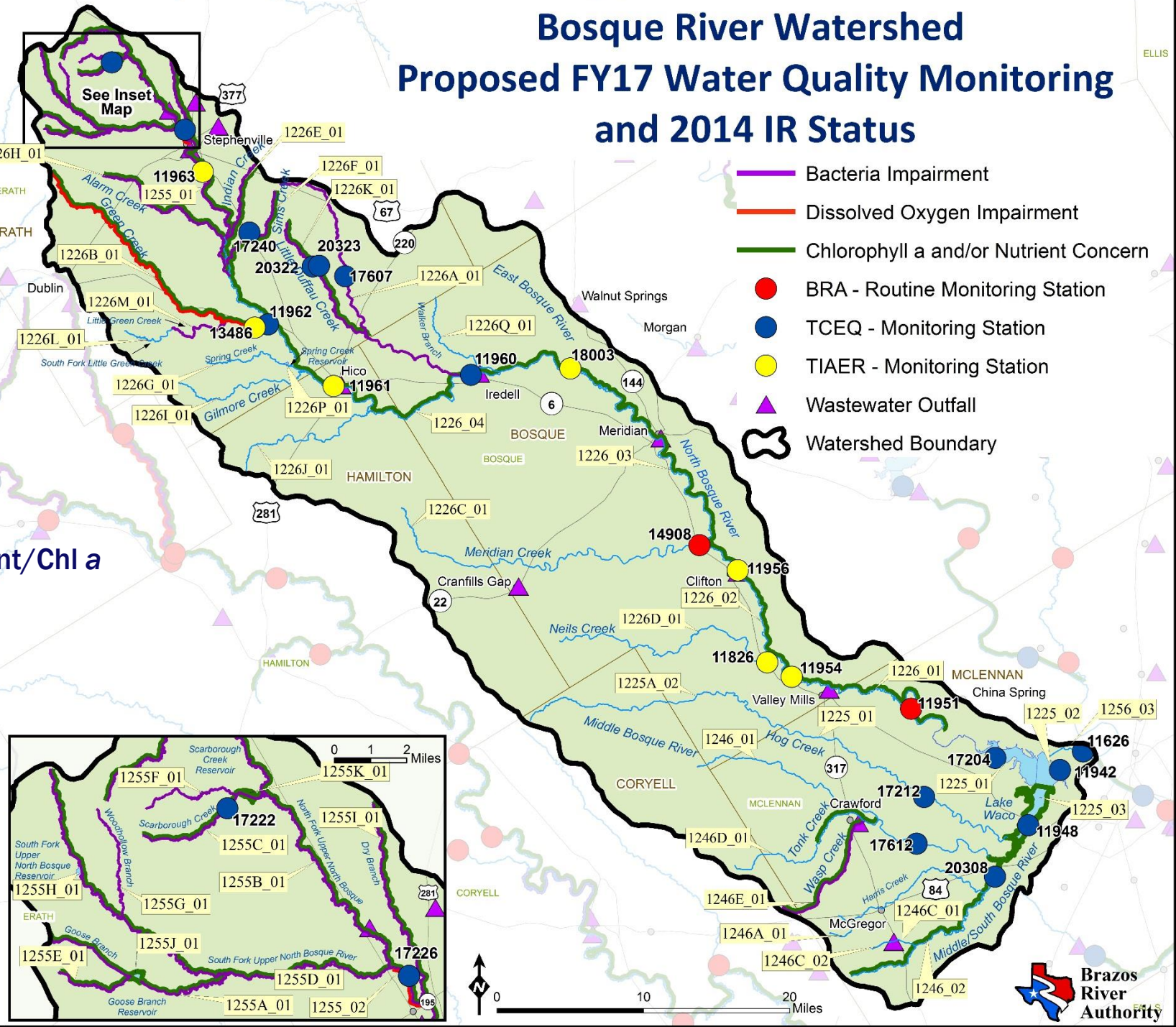
Bosque River Watershed
Proposed FY17 Water Quality Monitoring and 2014 IR Status





- 17 Bacteria – 2 DO – 25 Nutrient/Chl *a*

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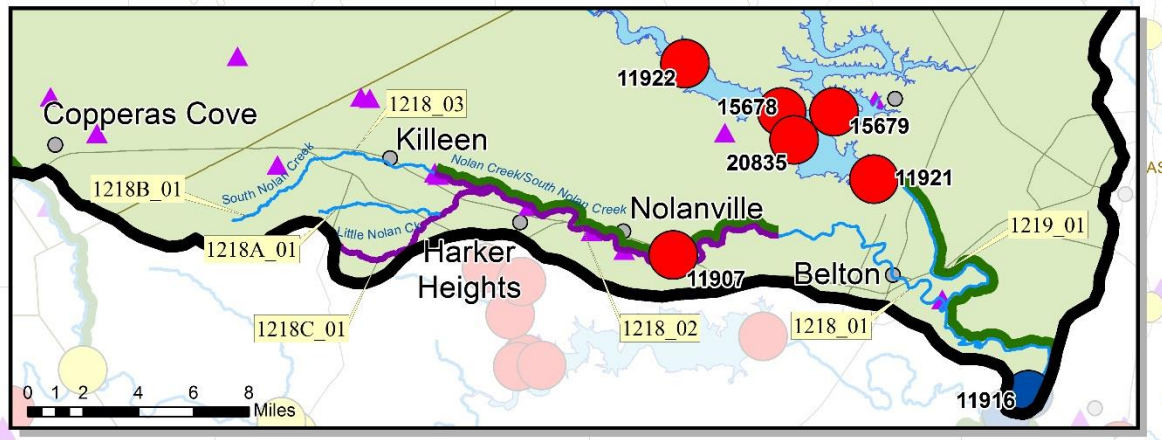
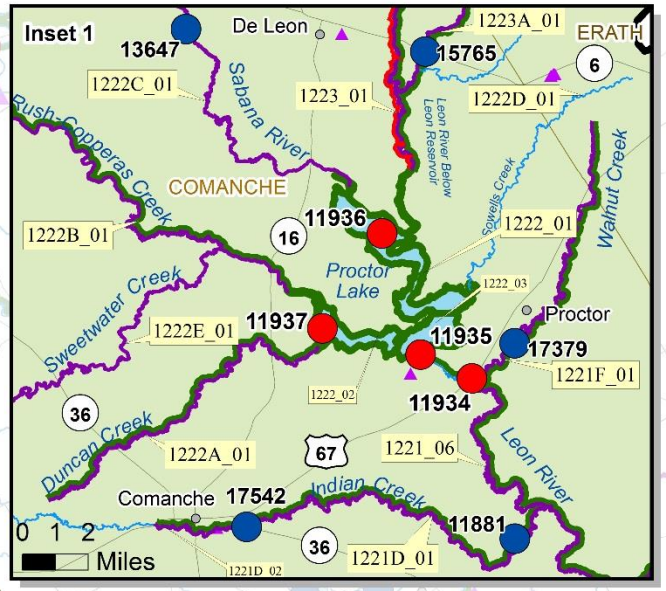
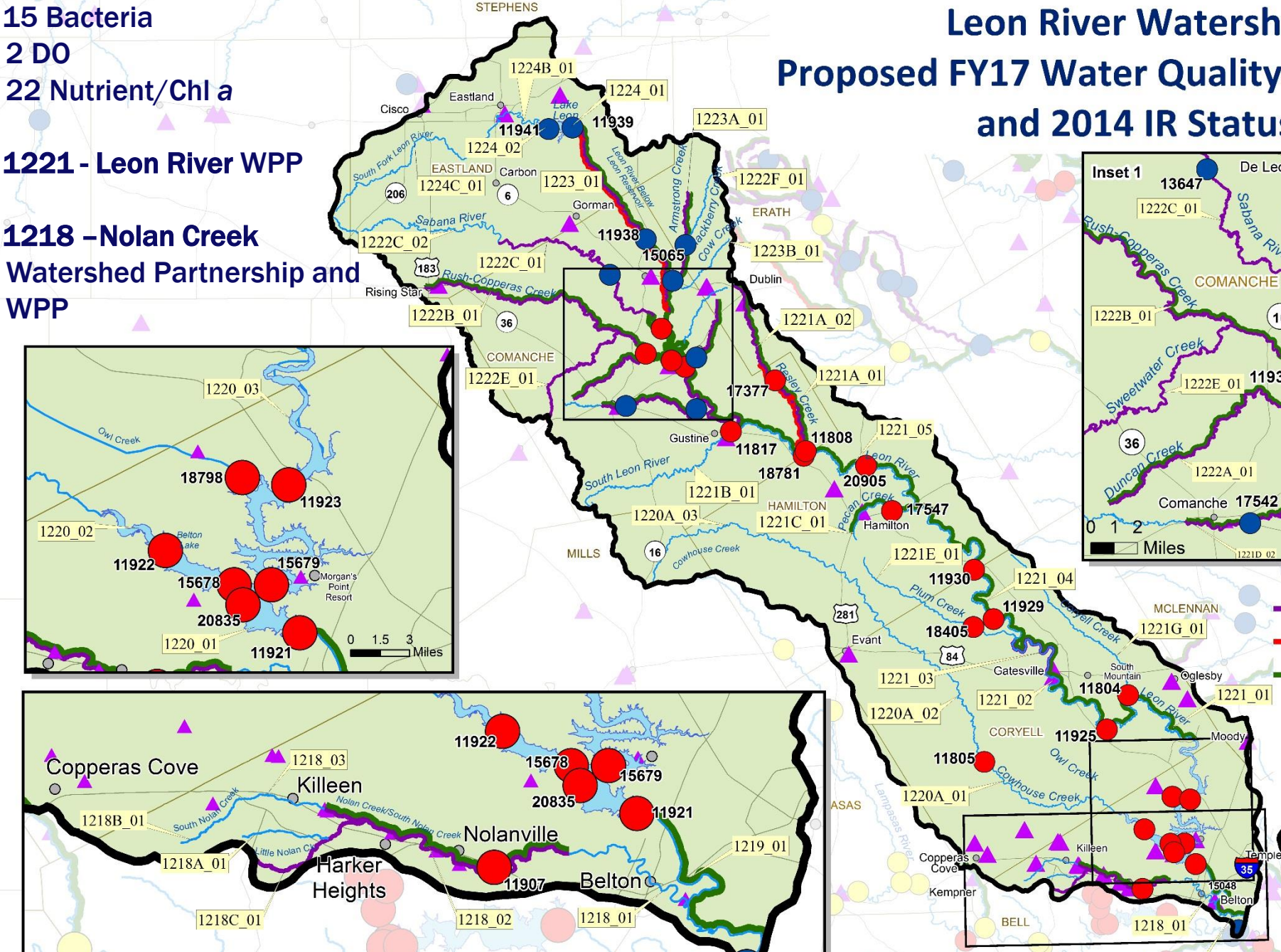
- 15 Bacteria
  - 2 DO
  - 22 Nutrient/Chl *a*
- 1221 - Leon River WPP
- 1218 –Nolan Creek Watershed Partnership and WPP

Leon River Watershed
Proposed FY17 Water Quality Monitoring and 2014 IR Status







- Bacteria Impairment
- Dissolved Oxygen Impairment
- Chlorophyll a and/or Nutrient Concern
- BRA - Routine Monitoring Station
- TCEQ - Monitoring Station
- TIAER - Monitoring Station
- Wastewater Outfall
- Watershed Boundary

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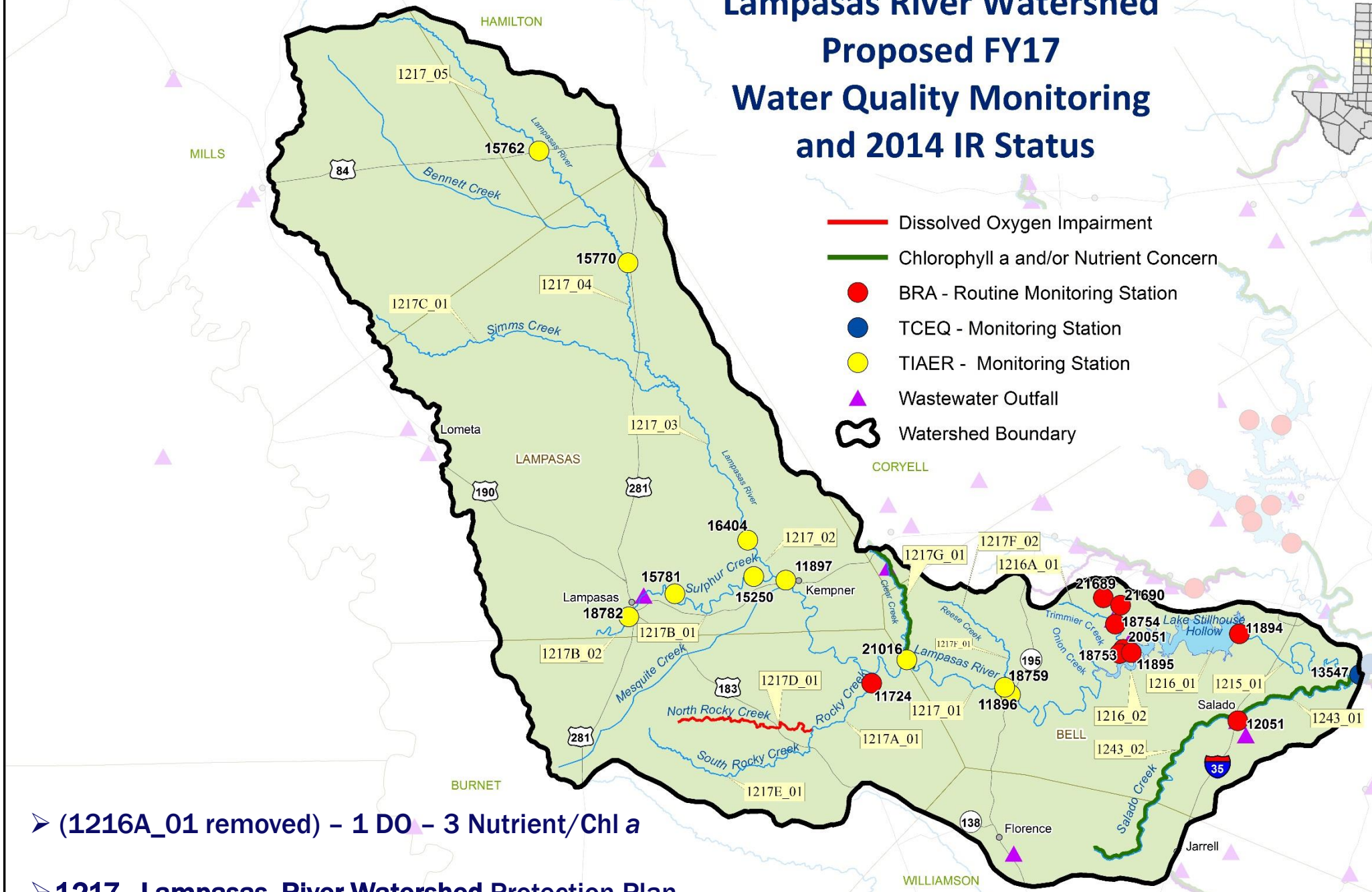
Lampasas River Watershed Proposed FY17 Water Quality Monitoring and 2014 IR Status



- (1216A_01 removed) – 1 DO – 3 Nutrient/Chl *a*
- 1217 - Lampasas River Watershed Protection Plan

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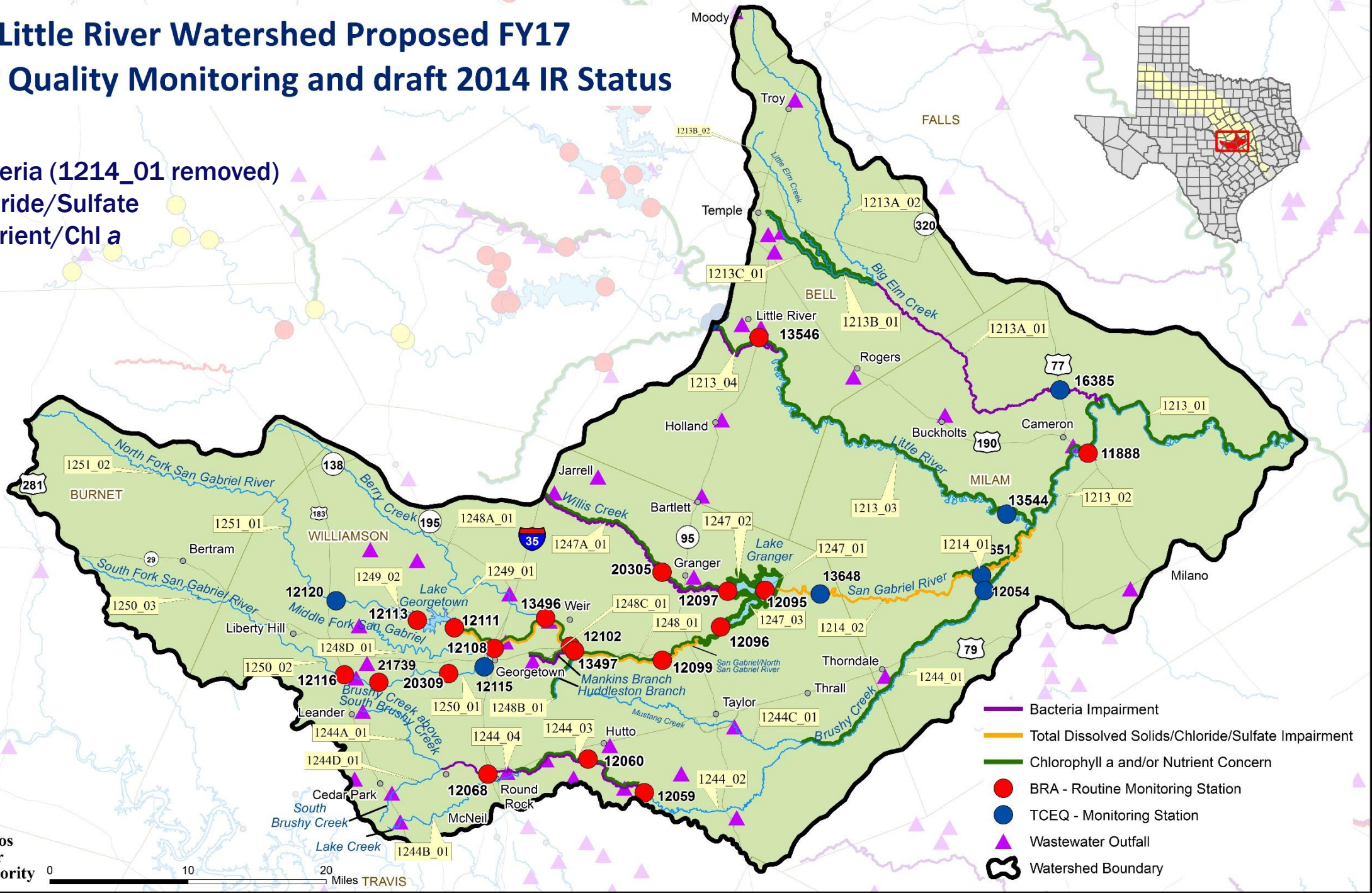
Little River Watershed Proposed FY17 Water Quality Monitoring and draft 2014 IR Status

- 6 Bacteria (1214_01 removed)
  3 Chloride/Sulfate
  16 Nutrient/Chl *a*



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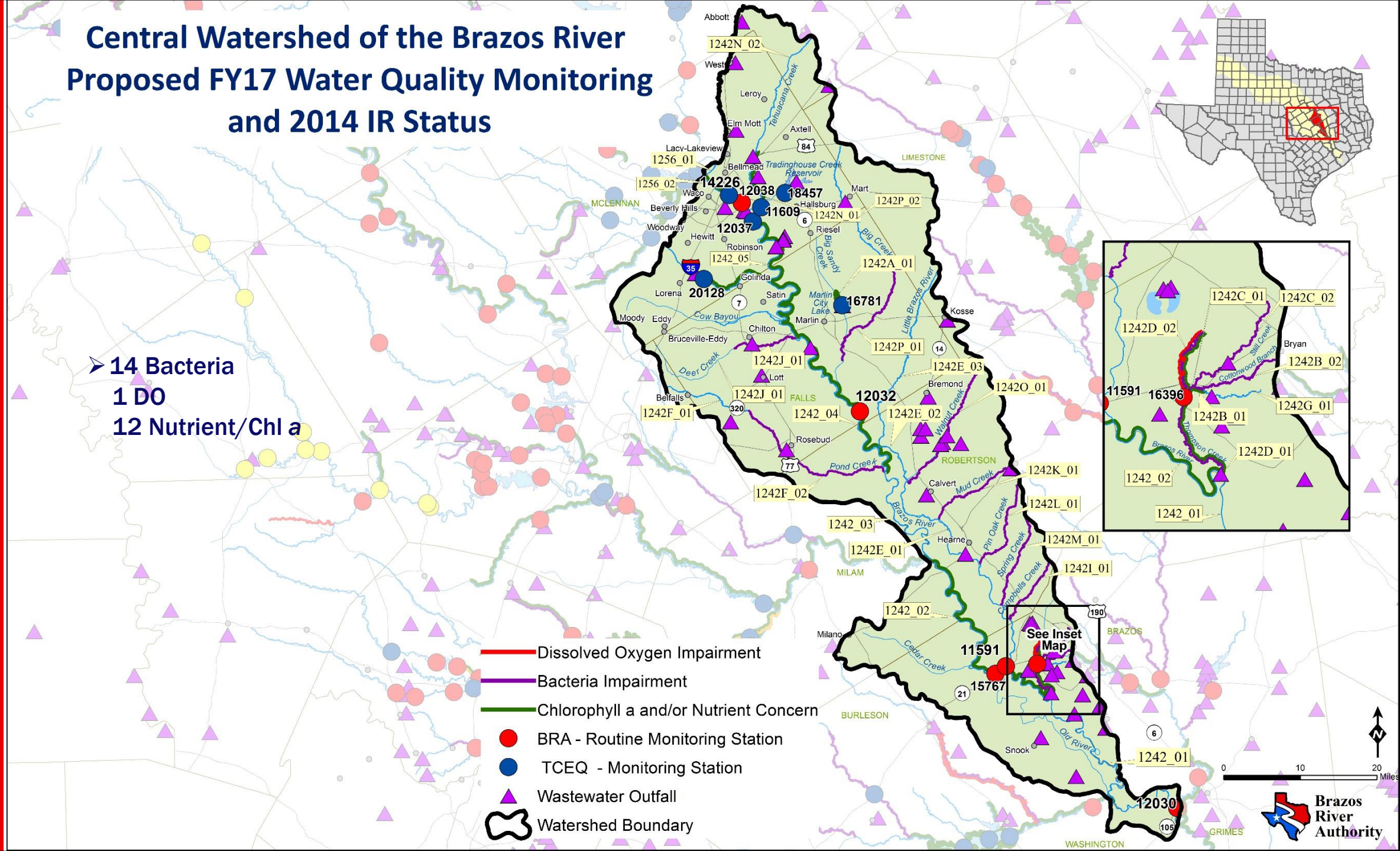
Central Watershed of the Brazos River
Proposed FY17 Water Quality Monitoring and 2014 IR Status

- 14 Bacteria
  1 DO
  12 Nutrient/Chl *a*



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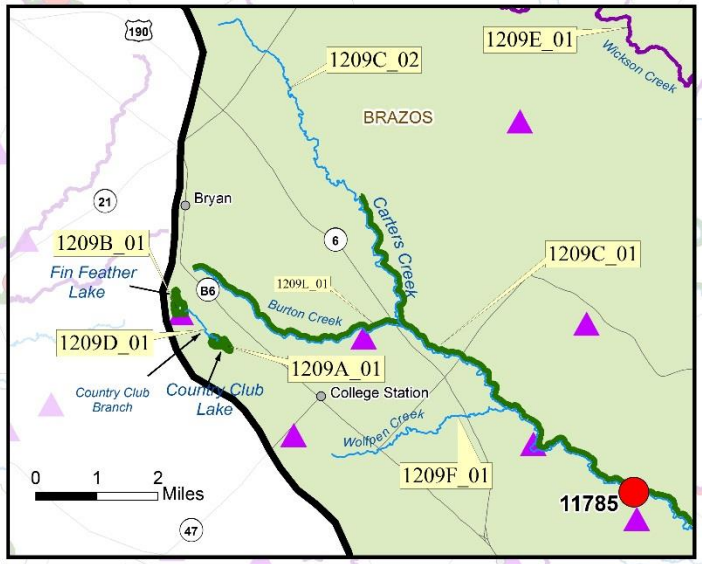
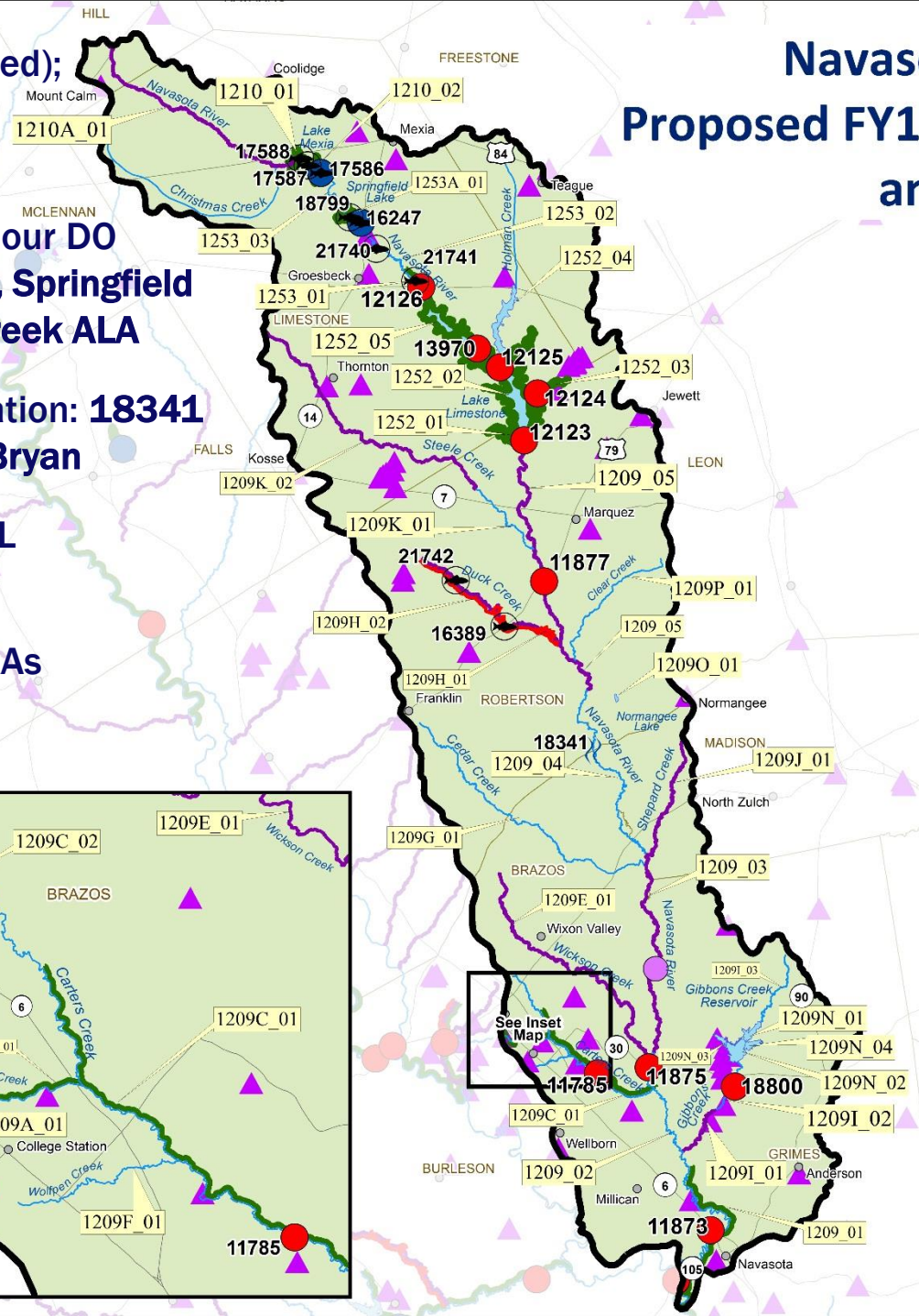
Navasota River Watershed
Proposed FY17 Water Quality Monitoring and 2014 IR Status

- 8 Bacteria (1209C,D,G,L removed);
  1 DO
  9 Nutrient/Chl *a*
- Special project collecting 24-hour DO measurements in **Lake Mexia, Springfield Lake (Ft. Parker)** and **Duck Creek ALA**
- WMP Environmental Study station: **18341 Navasota River at OSR NE of Bryan**
- **Carter's** and **Burton Creek** TMDL Implementation
- **Navasota River Watershed** RUAAs
- **Navasota River WPP**





- Bacteria Impairment
- Dissolved Oxygen Impairment
- Toxicity in Sediment Impairment
- Chlorophyll a and/or Nutrient Concern
- BRA - Routine Monitoring Station
- TWRI - Monitoring Station
- TCEQ - Monitoring
- BRA - Instream Flow Station
- BRA - 24-hour DO Monitoring Station
- Wastewater Outfall
- Watershed Boundary

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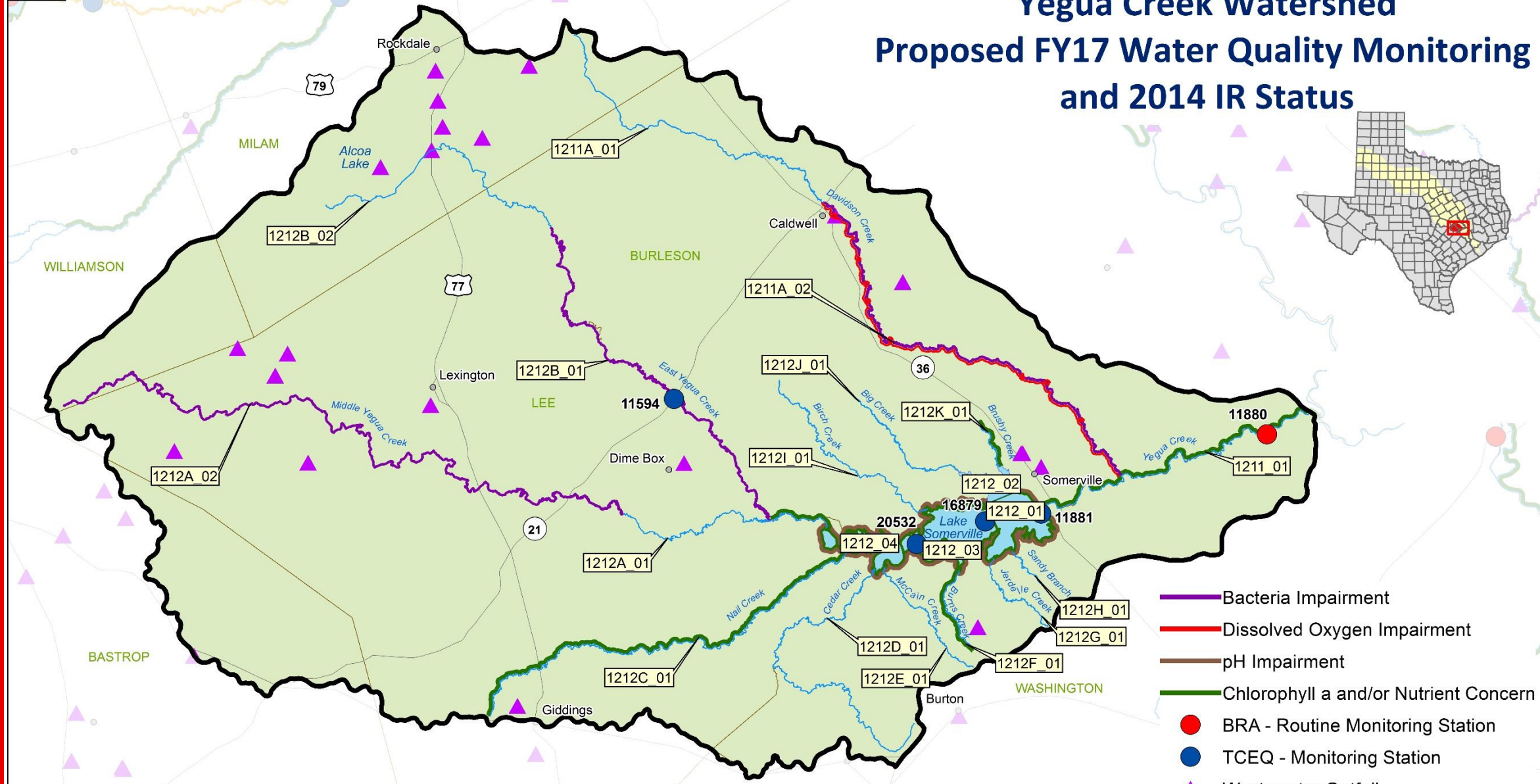
Yegua Creek Watershed
Proposed FY17 Water Quality Monitoring and 2014 IR Status



➢ 3 Bacteria – 1 DO – 3 pH – 8 Nutrient/Chl *a*

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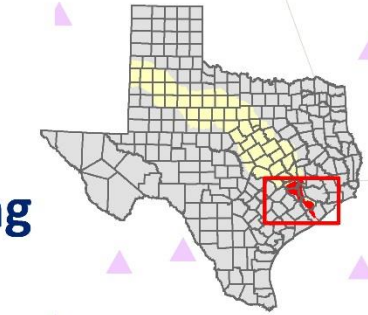
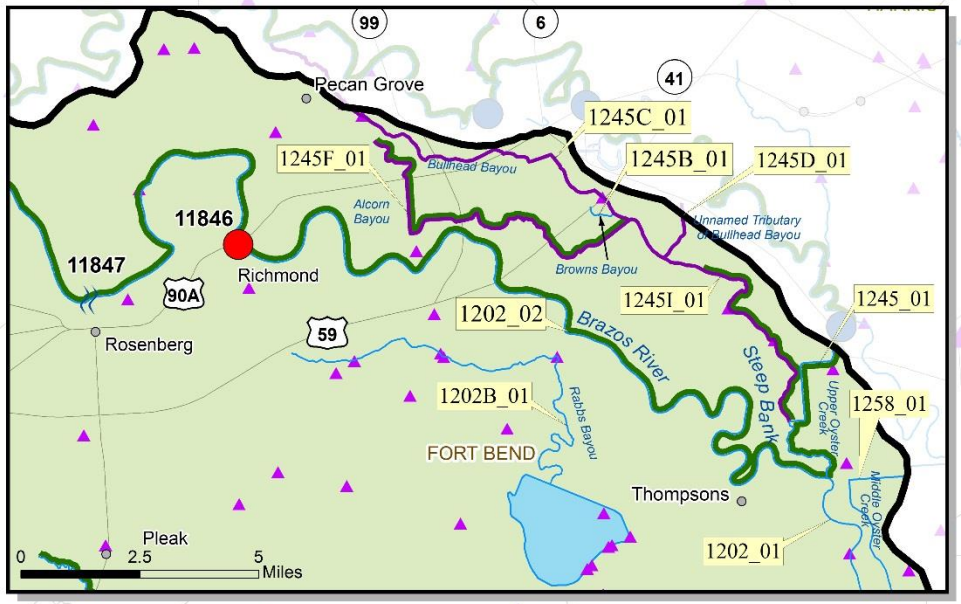
Lower Watershed of the Brazos River Proposed FY17 Water Quality Monitoring and 2014 IR Status

- 7 Bacteria
  8 Nutrient/Chl *a*
- Two WMP Environmental Study stations: **21620 - Brazos River upstream of FM 1462 W of Rosharon and 11847 – Brazos River at FM 723 N of Rosenberg**





Bacteria Impairment
Chlorophyll a and/or Nutrient Concern
BRA - Routine Monitoring Station
TCEQ - Monitoring Station
BRA - Instream Flow Station
Wastewater Outfall
Watershed Boundary

0 10 20 Miles

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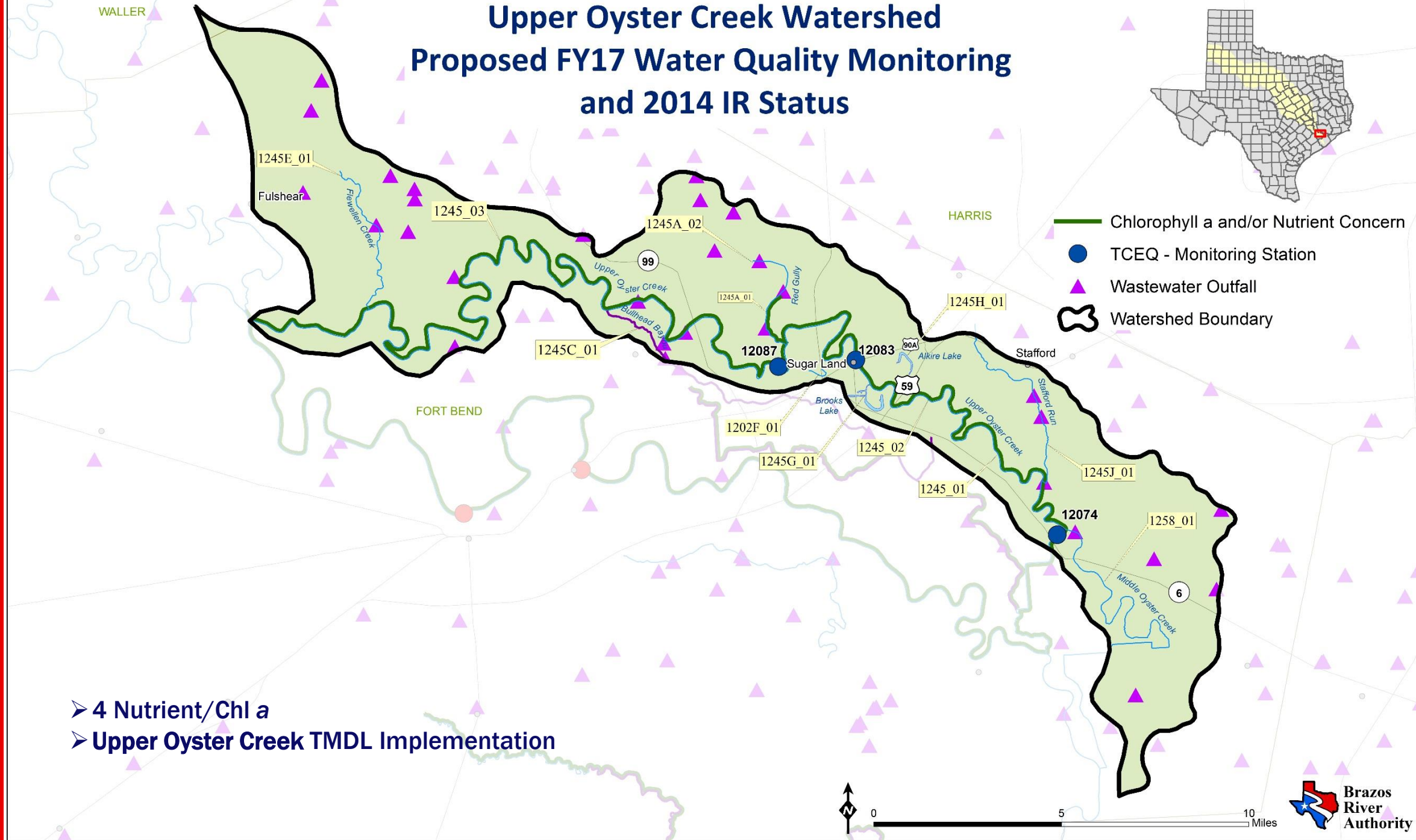
Upper Oyster Creek Watershed
Proposed FY17 Water Quality Monitoring and 2014 IR Status



- 4 Nutrient/Chl *a*
- Upper Oyster Creek TMDL Implementation

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