

Clean Rivers Program Guadalupe River Basin

Annual Basin Highlights & Events Inventory

Lee Gudgell
March 24, 2016

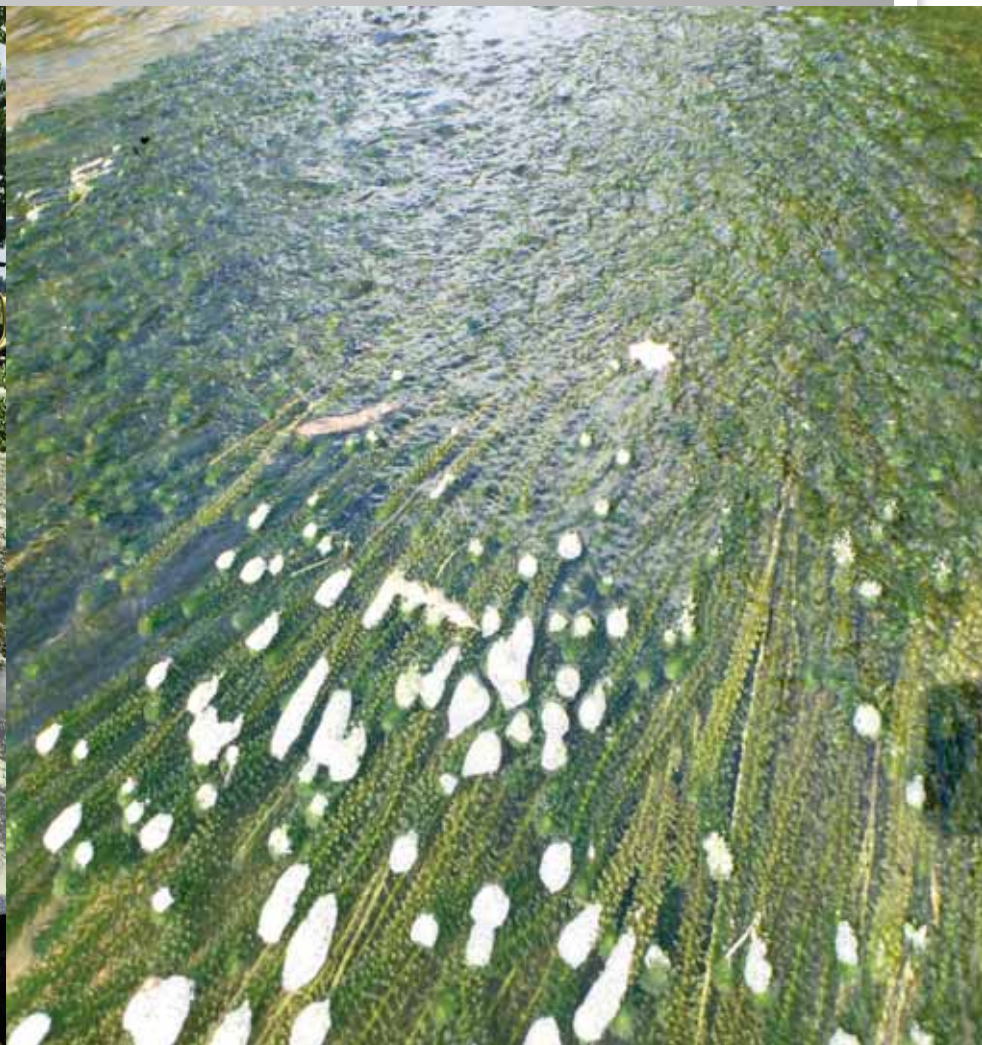
May 2015 Flooding



May 2015 Flooding

- Wetter than average Spring
- Parts of Comal, Hays & Blanco Counties reported over 13" of rain between May 23rd and May 25th.
- Blanco River in Wimberley set record at 44.90 ft of gage height & ~175,000 cfs
- San Marcos River in Martindale over 45 ft of gage height.

Aquatic Vegetation Management on Hydro Lakes

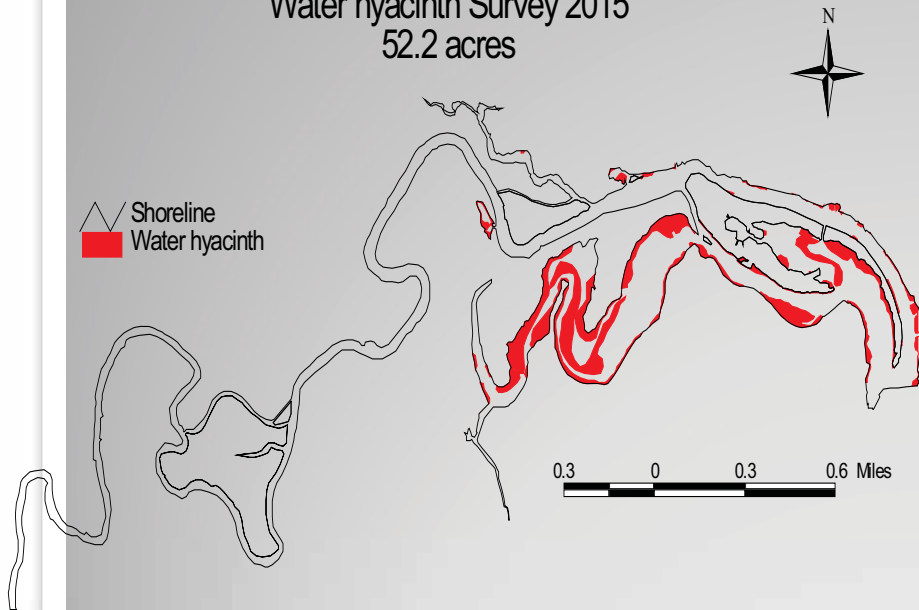


Aquatic Vegetation Management on Hydro Lakes

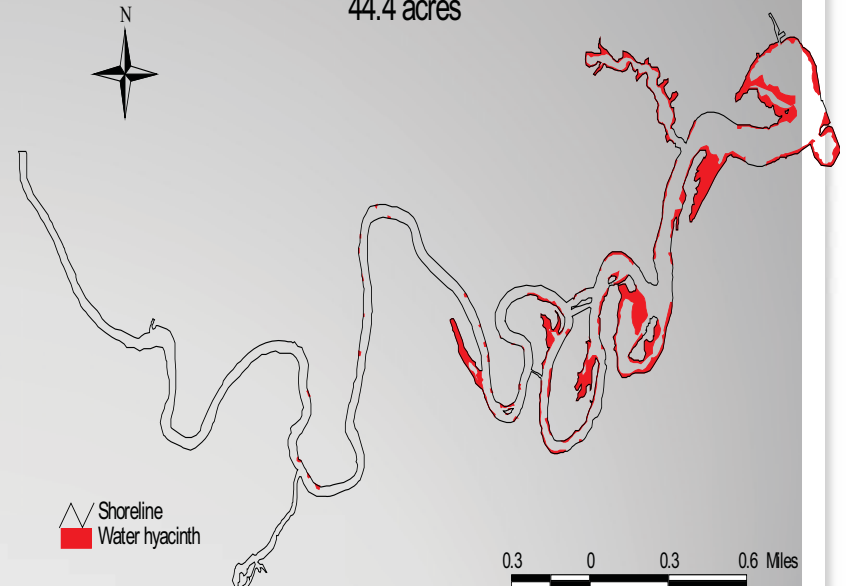
- The Guadalupe-Blanco River Authority Received a TPWD grant to treat for invasive Water Hyacinth & Hydrilla on Lake Gonzales & Lake Wood in 2015.
- TPWD performed surveys in April 2015
- Found 65 Acres of Hydrilla & 54 Acres of Water Hyacinth on Lake Gonzales (H-4)
- Found 44 Acres of Water Hyacinth on Lake Wood (H-5)
- GBRA Hired Licensed operator to spray for 13 days in July of 2015.

Aquatic Vegetation Management on Hydro Lakes

Lake Gonzales
Water hyacinth Survey 2015
52.2 acres



Lake Wood
2015 Water hyacinth survey
44.4 acres



Assessment Categories from Texas Integrated Report

- Category 5 – water body does not meet applicable water quality standards for one or more designated uses
 - 5a – a TMDL or WPP is underway, scheduled or will be scheduled
 - 5b – a review of water quality standards will be conducted
 - 5c – Additional data and info will be collected
 - Example – Sandies Creek
- Category 4 – Standard is not supported but does not require a Total Maximum Daily Load (TMDL)
 - 4a – TMDL has been completed and approved by EPA
 - 4b – Activities being conducted that will result in improved water quality
 - Example – Plum Creek

Assessment Categories from Texas Integrated Report

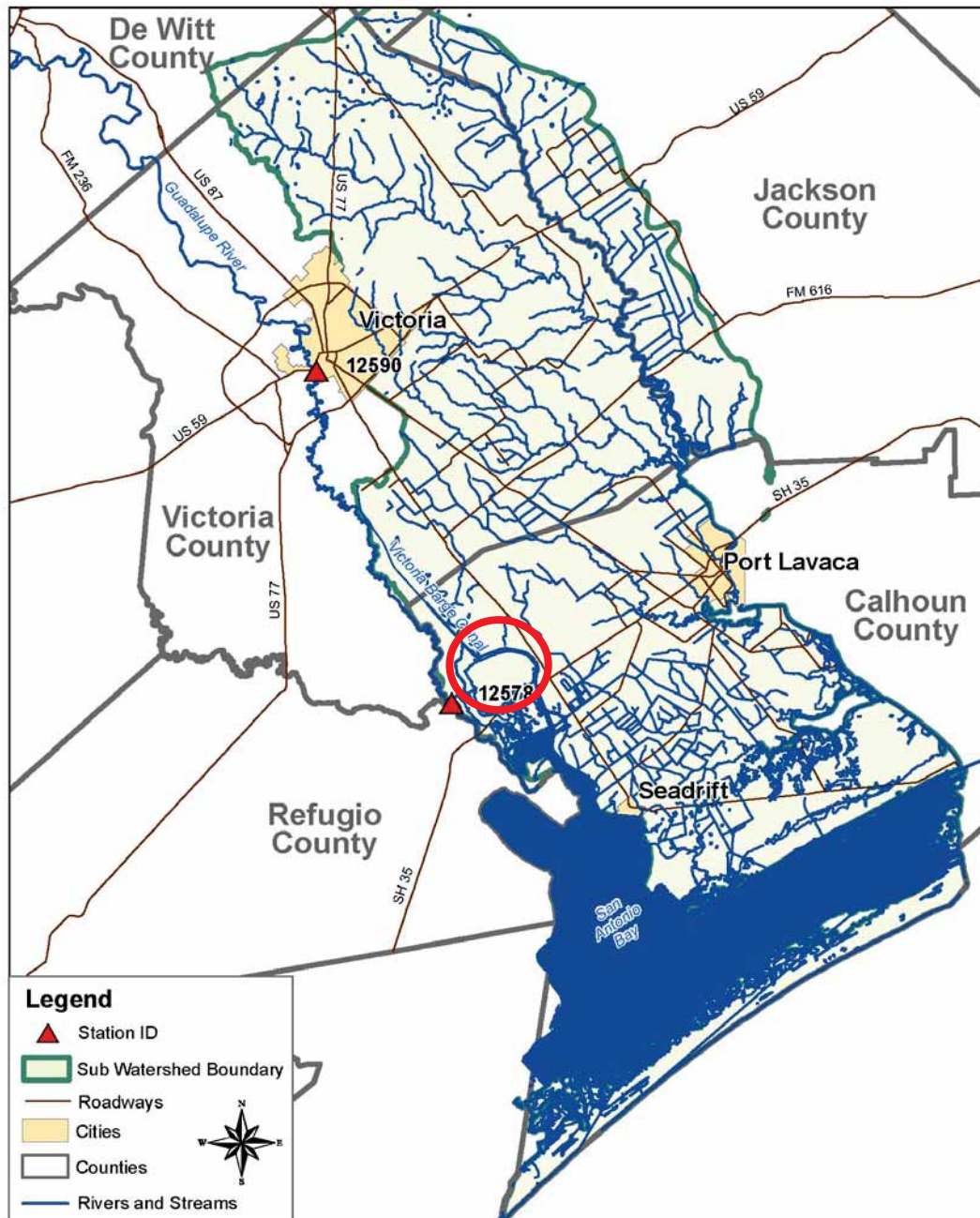
- Concerns
 - Exceeds screening concentration (CS)
 - Example: Plum Creek
 - Nitrate Nitrogen, Ammonia Nitrogen, Total Phosphorus
 - Has Use Concern (CN)
 - Example: Guadalupe River below San Marcos River
 - Bacteria Geometric Mean- 141 organisms/100 mL

Priority Water Bodies

- Victoria Barge Canal (Segment 1701)
 - Chlorophyll-a
 - Nitrate-Nitrogen
 - Listed with concerns in 2002



Guadalupe-Lavaca Coastal Basin

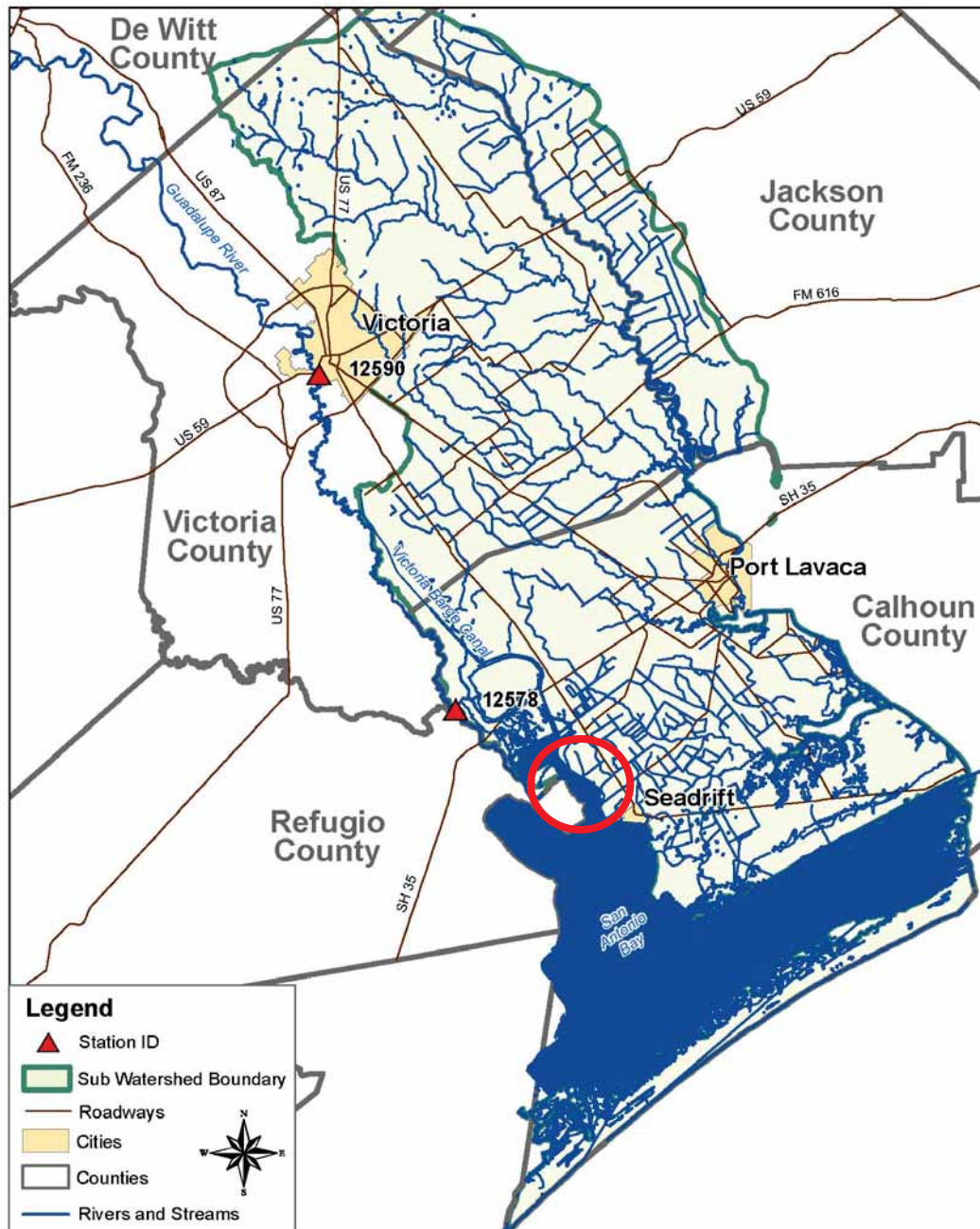


Priority Water Bodies

- Guadalupe River Tidal (Segment 1801)
 - Nitrate-Nitrogen
 - Listed with concerns in 2002



Guadalupe-Lavaca Coastal Basin

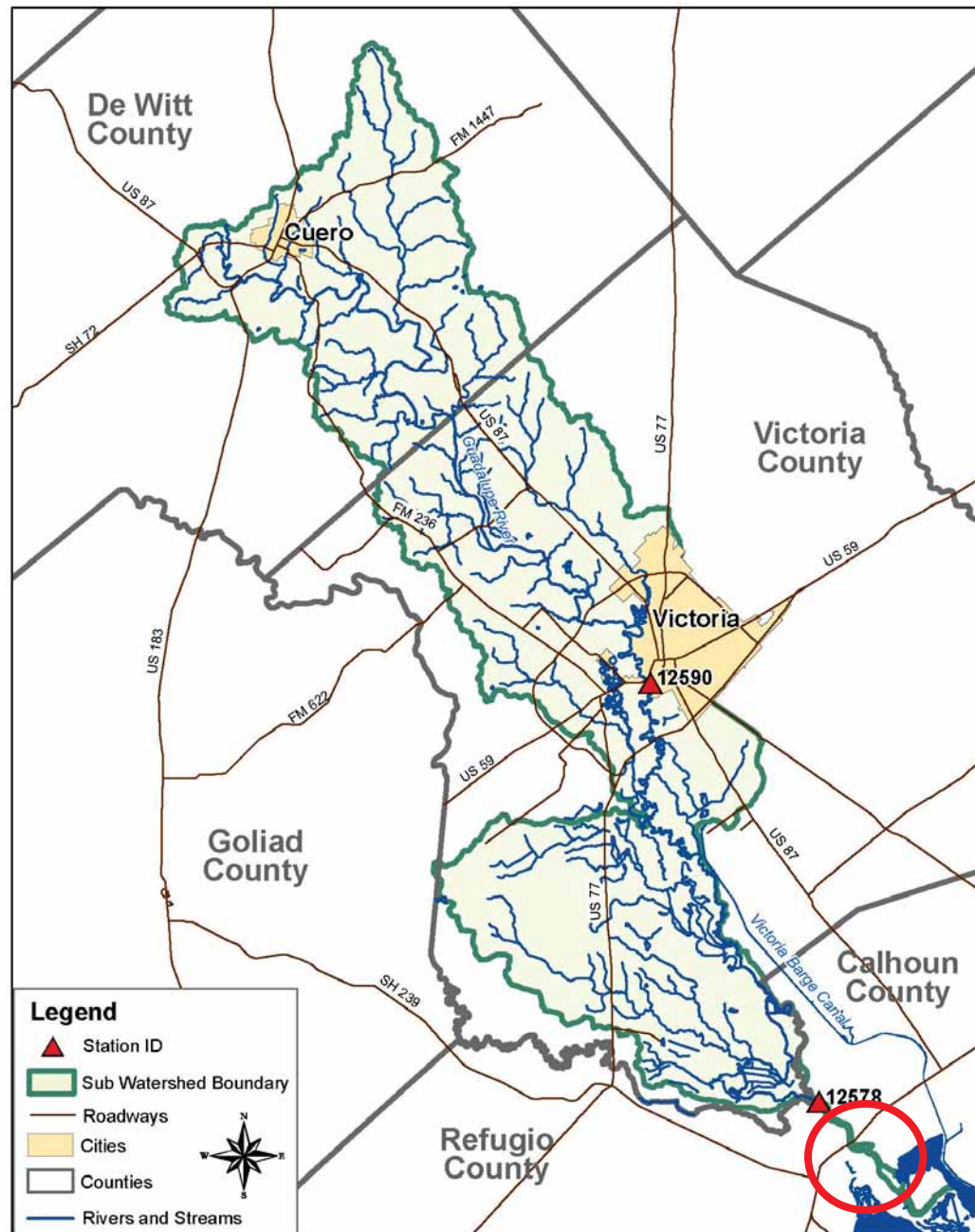


Priority Water Bodies

- Guadalupe River Below San Antonio River (Segment 1802)
 - Nitrate Nitrogen
 - Listed with concerns in 2002



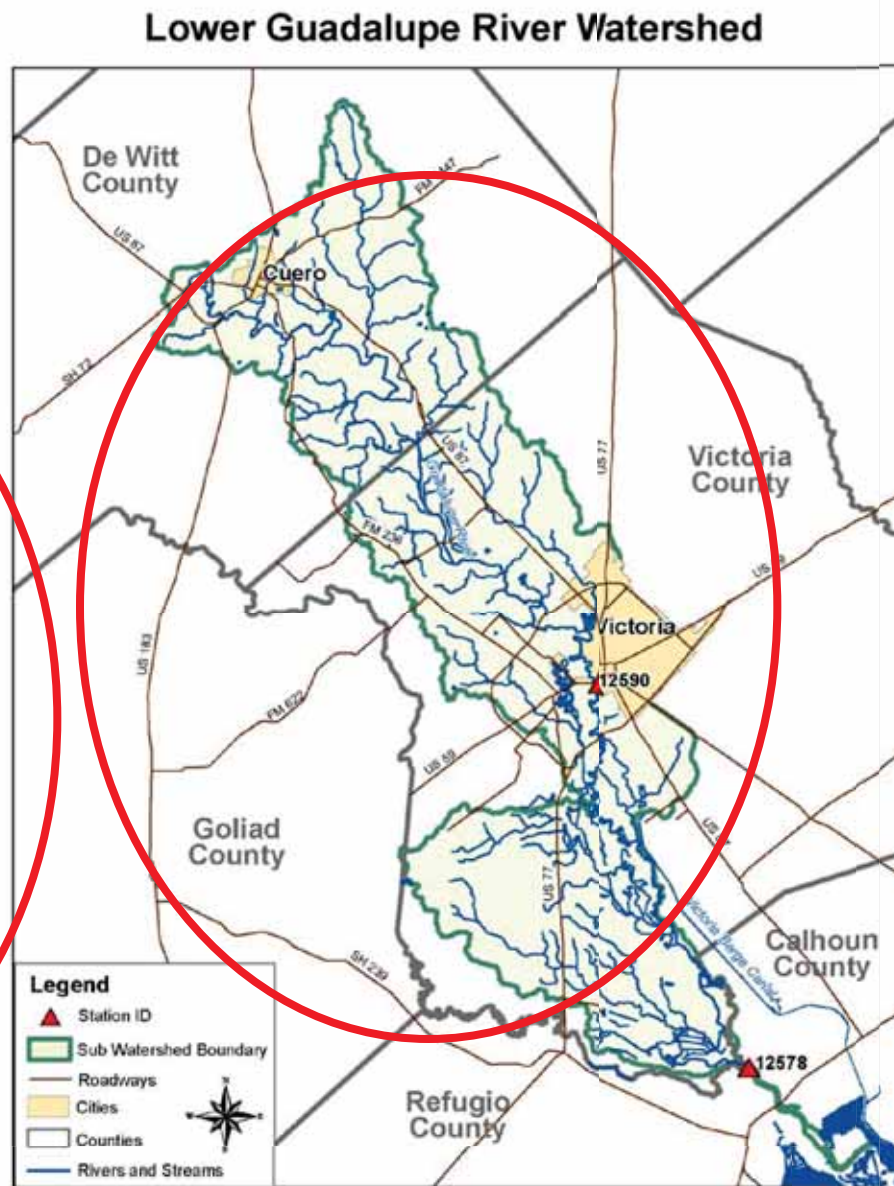
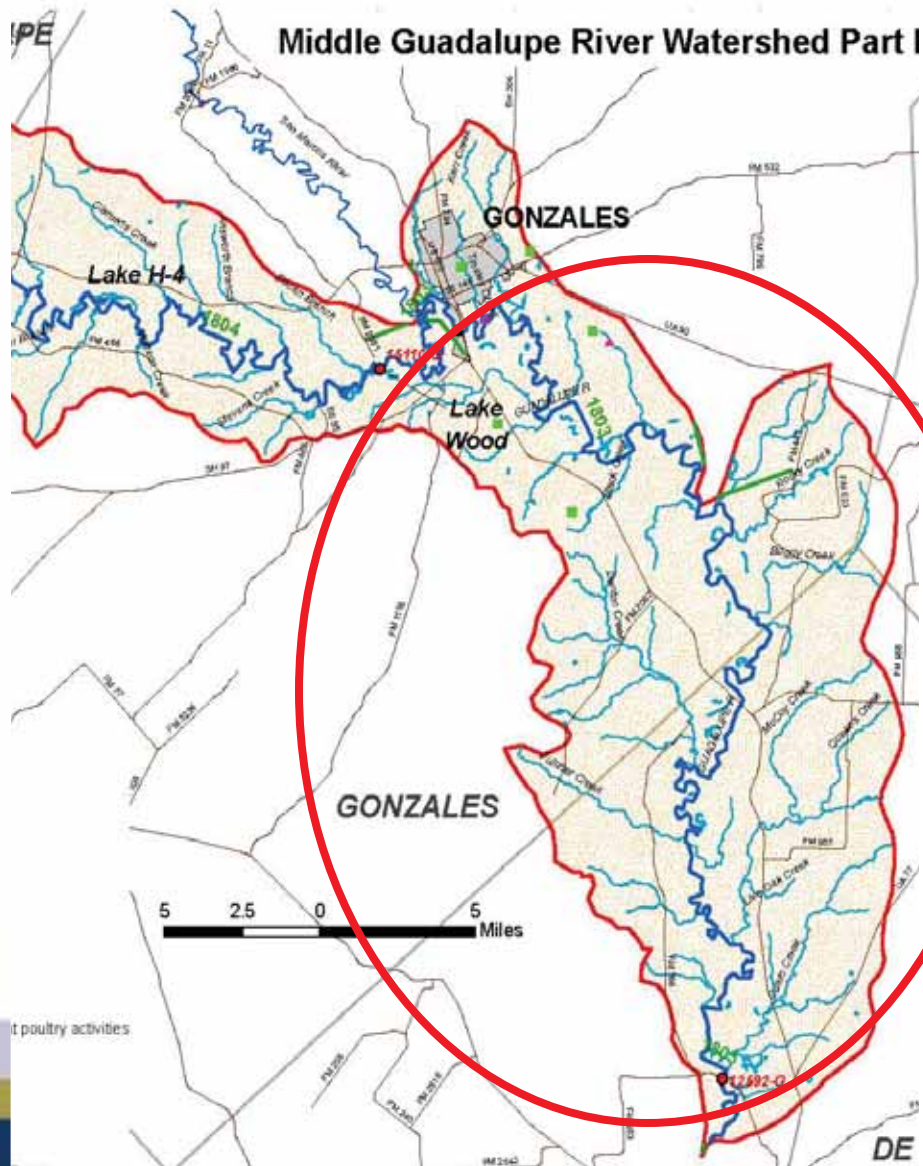
Lower Guadalupe River Watershed



Priority Water Bodies

- Guadalupe River Below San Marcos River (Segment 1803)
 - 1803_04 – 25 mi from confluence with Coleta Creek upstream to confluence with Sandies Creek
 - Bacteria
 - Removed listing in 2014
 - 1803_01 – Lower 25 Miles
 - Nitrate Nitrogen
 - Listed as Concern in 2014



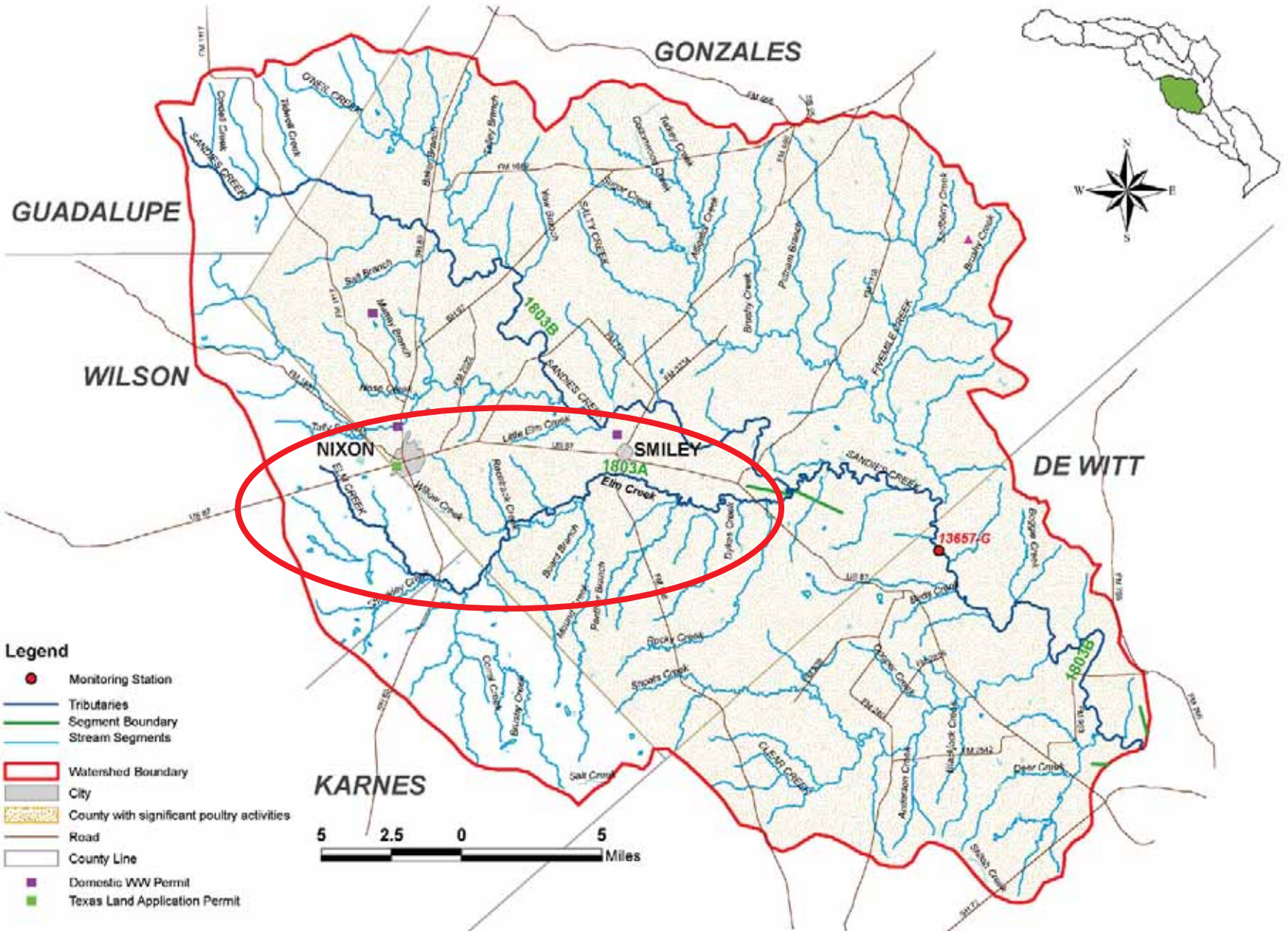


Priority Water Bodies

- Elm Creek (Segment No. 1803A)
 - Depressed Dissolved Oxygen listed in category 5b in 1999;
 - Chlorophyll-a listed as a concern



Sandies Creek Watershed

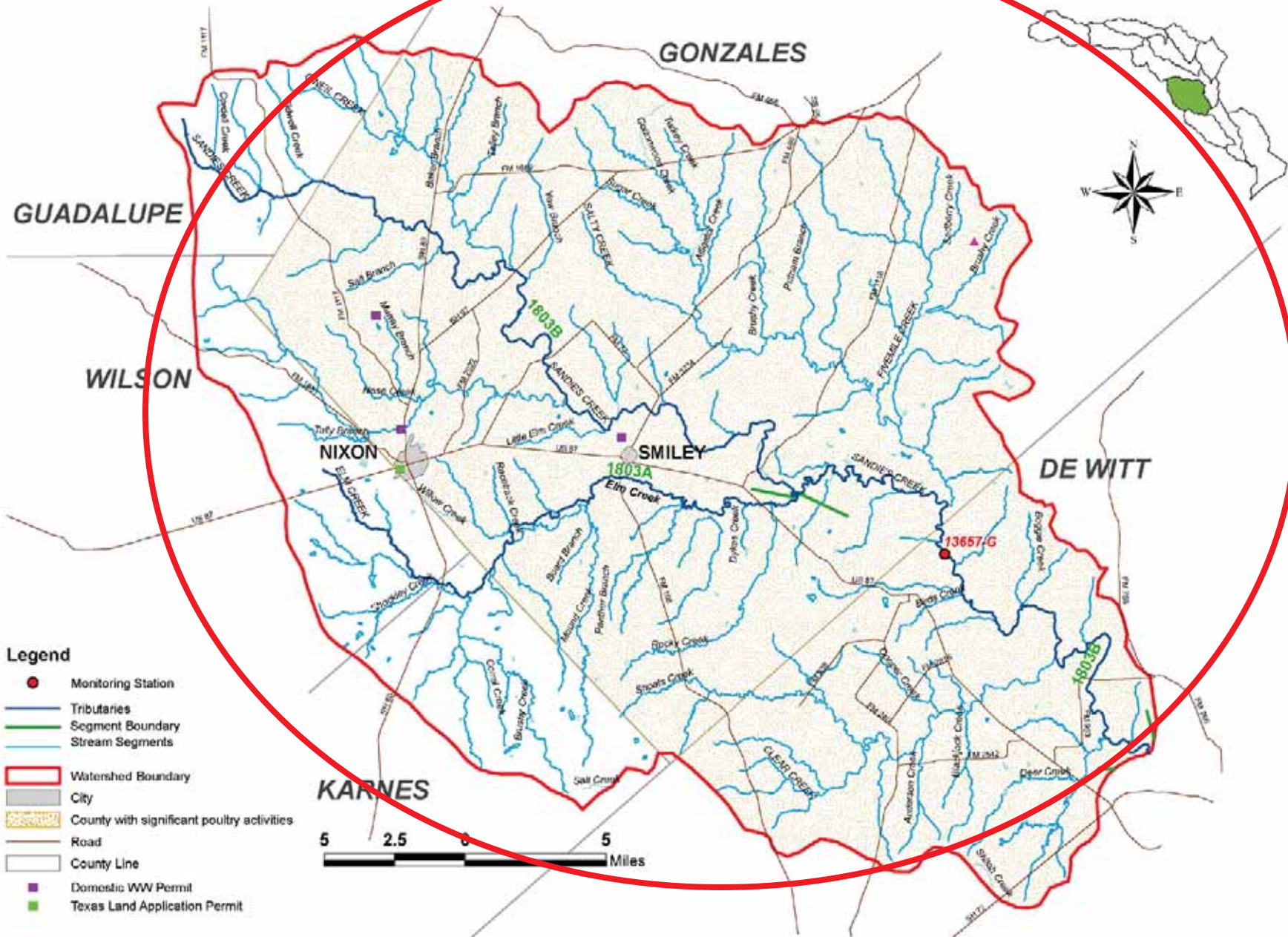


Priority Water Bodies

- Sandies Creek (Segment 1803A)
 - Depressed Dissolved Oxygen, Bacteria & Fish & Macroinvertebrates Communities
 - Listed in Category 5b in 1999
 - Chlorophyll-a and Impaired Biological Habitat listed as concerns



Sandies Creek Watershed

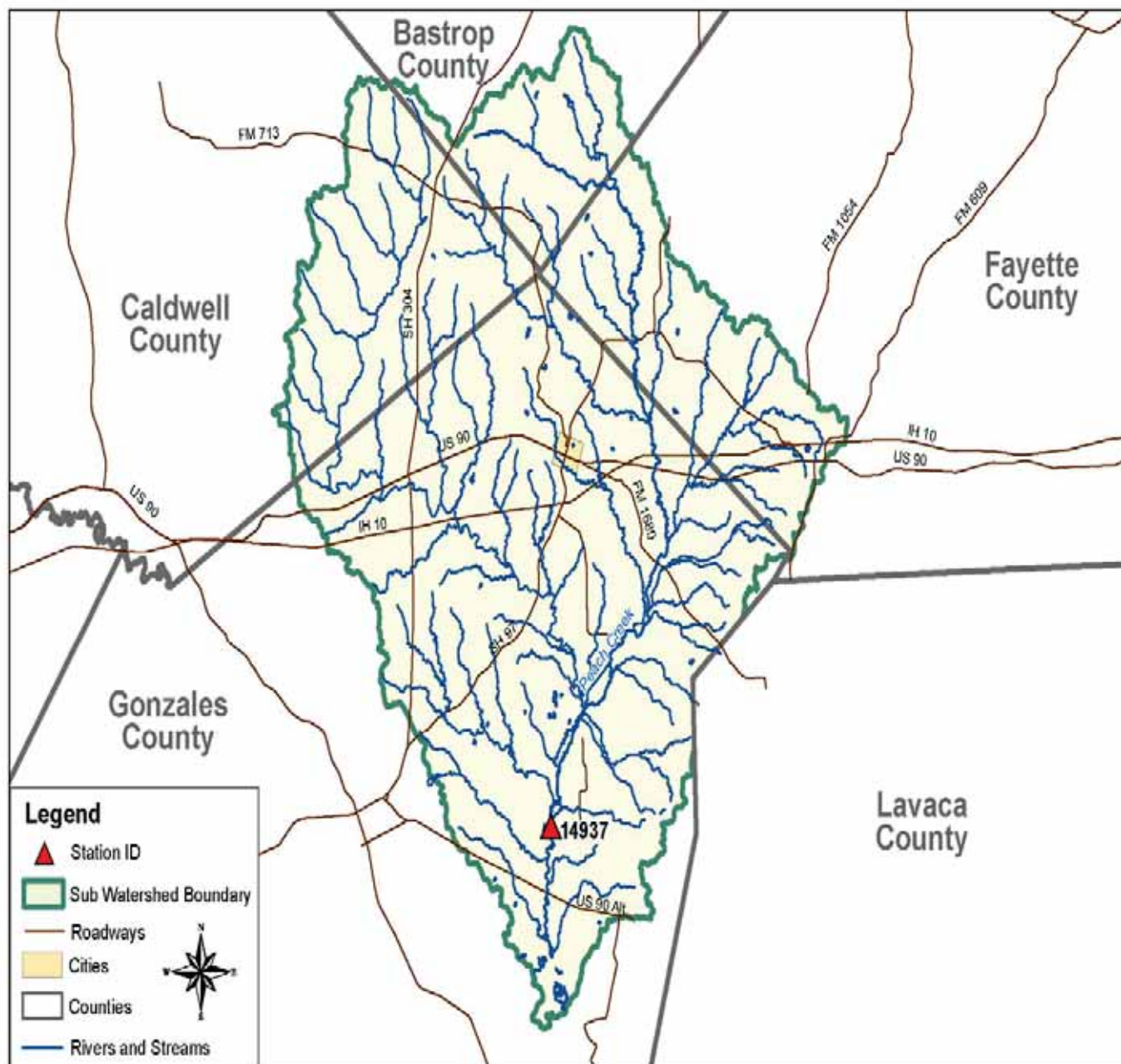


Priority Water Bodies

- Peach Creek (Segment No. 1803C)
 - Depressed Dissolved Oxygen & Bacteria listed in categories 5b and 5c in 2002.
 - Chlorophyll-a & Total Phosphorus listed as concerns
 - Denton Creek (1803F) & Sandy Fork (1803G) removed from list in 2014.



Peach Creek Watershed

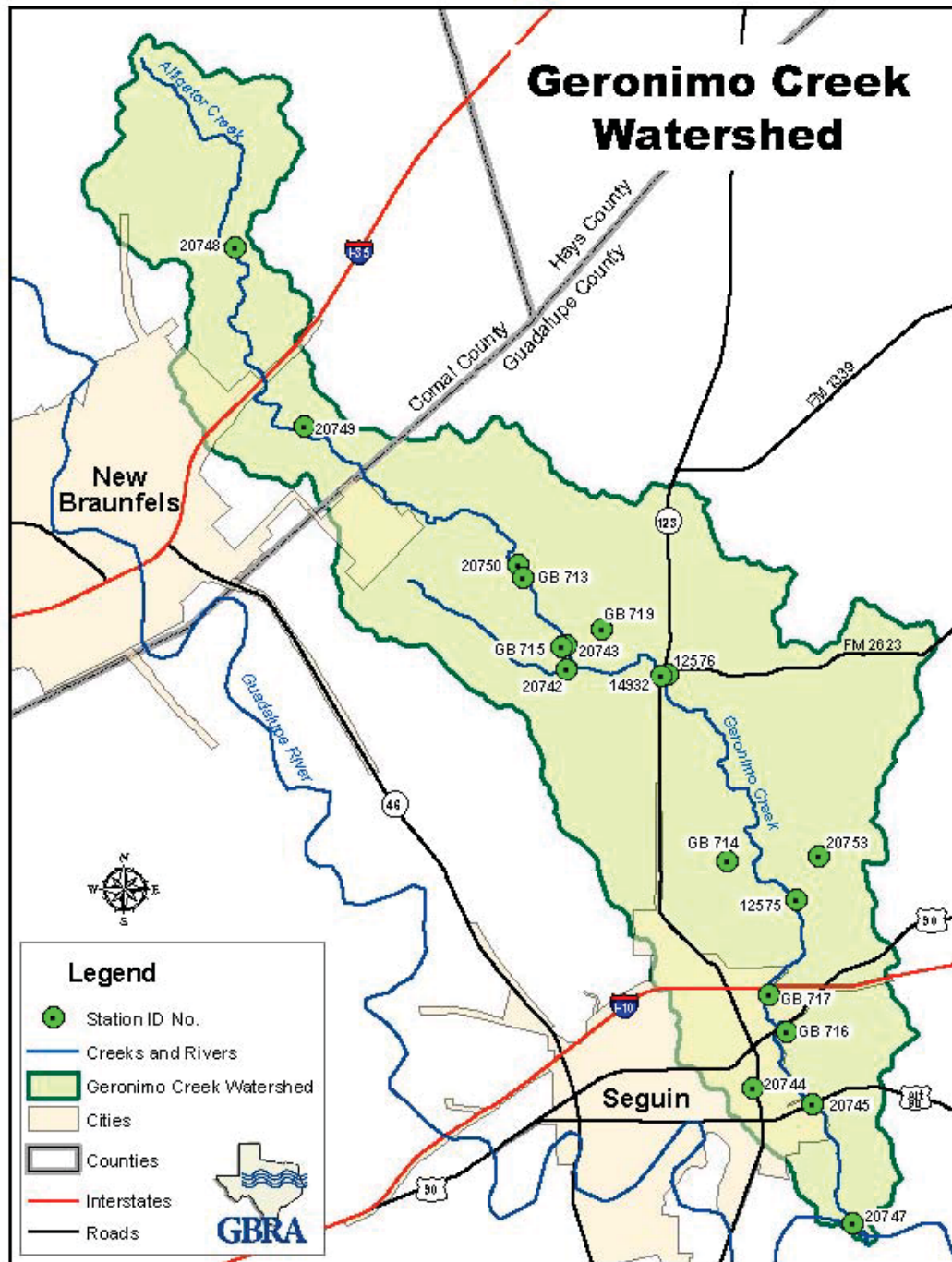


Priority Water Bodies

- Geronimo Creek (Segment No. 1804A)
 - Bacteria impairment listed in 2006 under category 5c
 - Nitrate Nitrogen listed as a concern
 - Baer Creek (1804D) listed as concern for Bacteria in 2014



Geronimo Creek Watershed

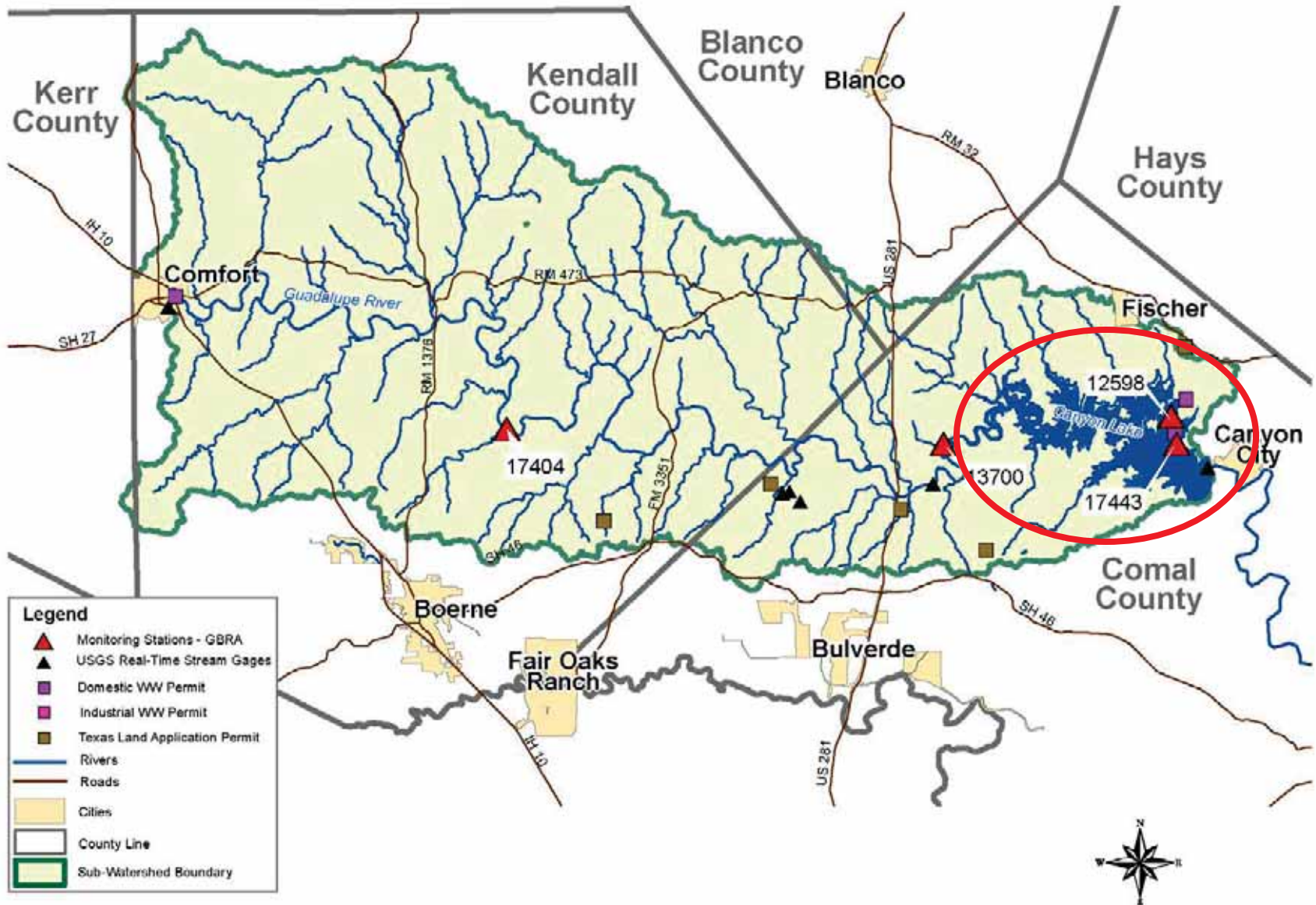


Priority Water Bodies

- Canyon Lake (Segment 1805)
 - Mercury in Edible Fish Tissue listed in 2006 under category 5c
 - Ammonia Nitrogen listed as a concern in 2014 at 1805_01 – Cove near Jacob's Creek



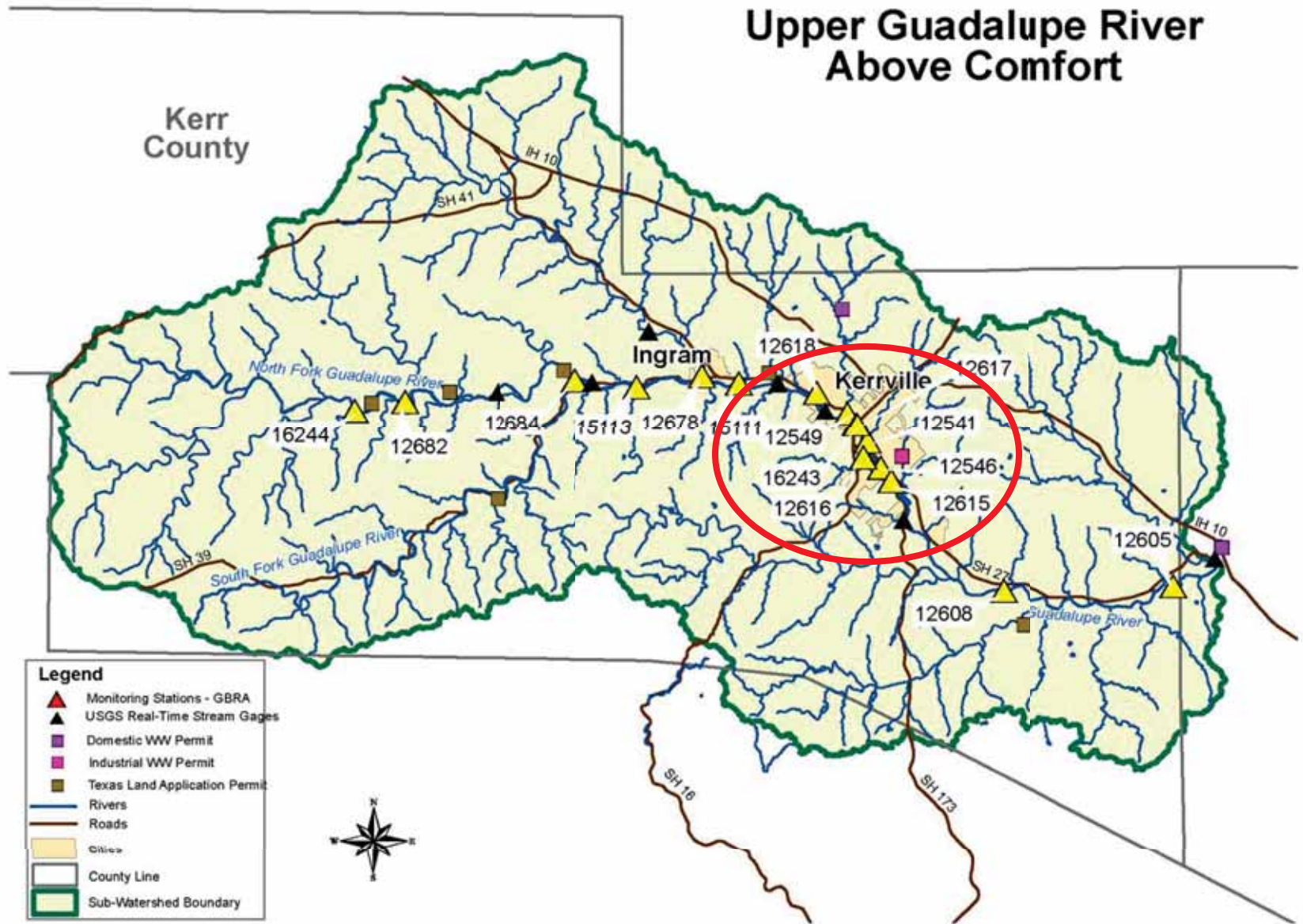
Guadalupe River Below Comfort



Priority Water Bodies

- Guadalupe River Above Canyon Reservoir (Segment 1806)
 - Bacteria at 1806_06 & 1806_08 Portions of the segment from confluence with Third Creek to confluence of Town Creek; Honey Creek to confluence of Joshua Creek - Kerr Co. Bacteria was listed in 1999 and later moved to category 4a and Removed in 2014.
 - Impaired Biological Habitat listed as a concern in 2014.

Upper Guadalupe River Above Comfort

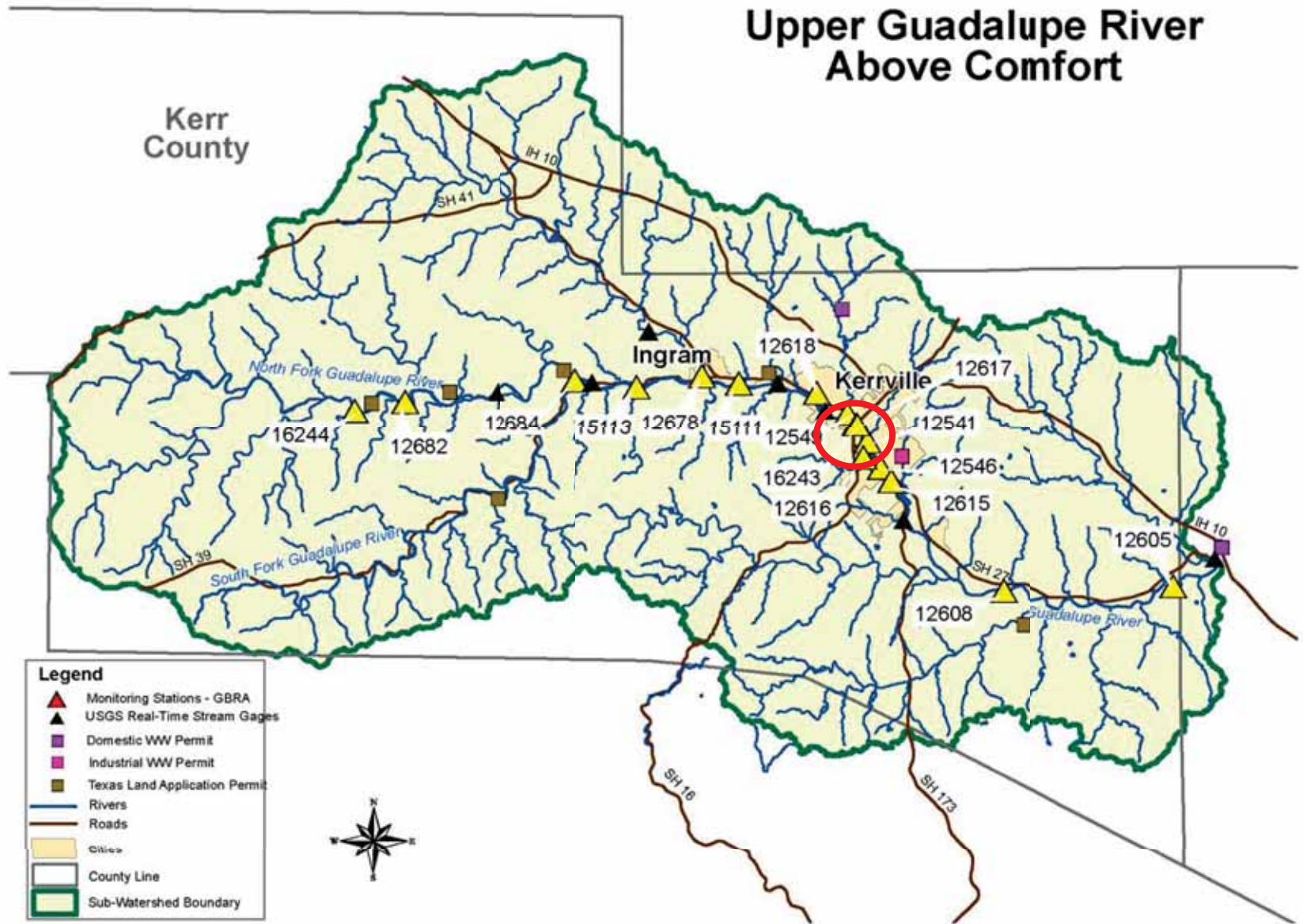


Priority Water Bodies

- Quinlan Creek (Segment 1806D) & Town Creek (Segment 1806E)
 - Listed for Bacteria in category 5a in 2010
 - Listed as a concern for Dissolved Oxygen



Upper Guadalupe River Above Comfort

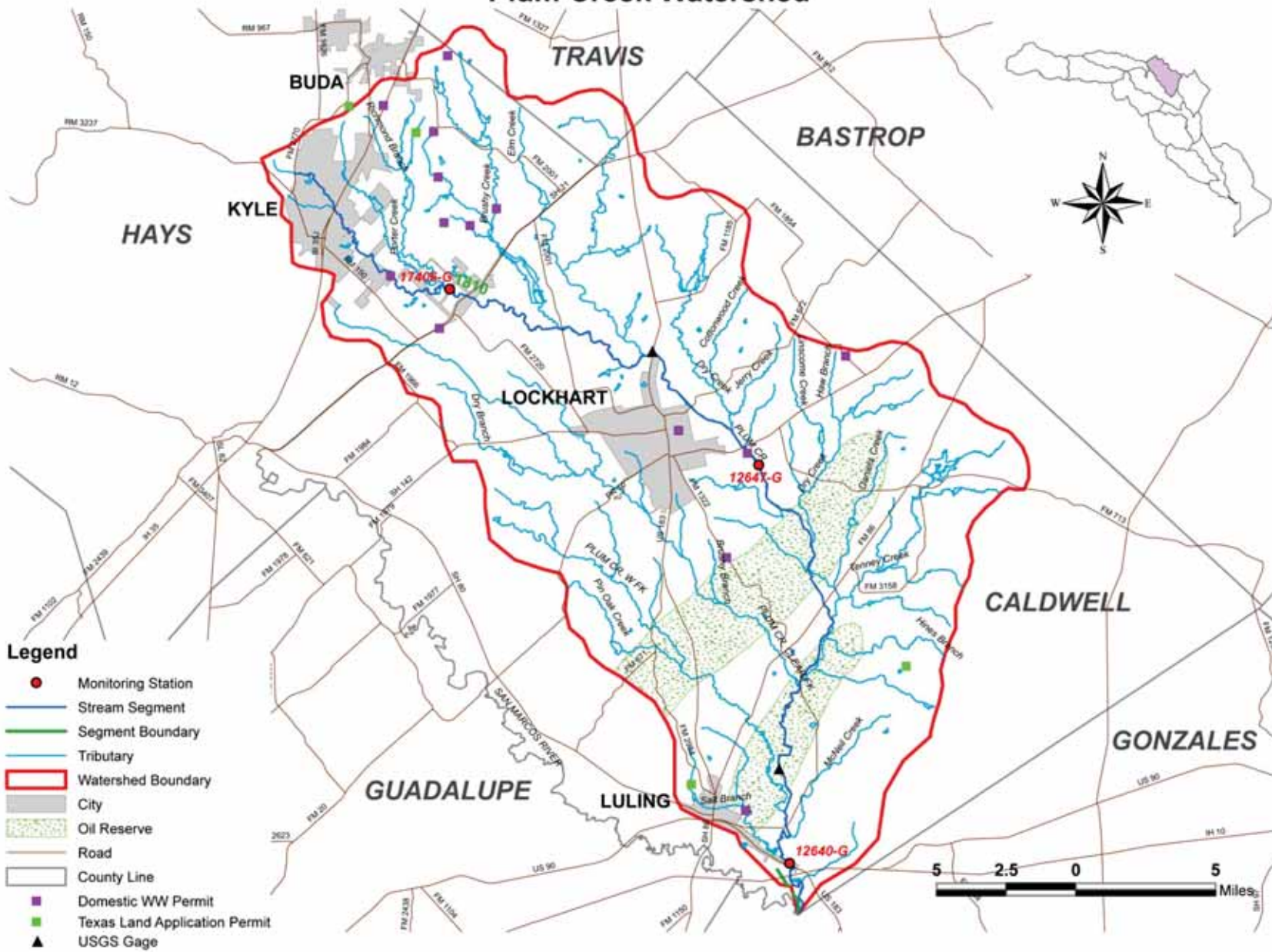


Priority Water Bodies

- Plum Creek (Segment 1810)
 - Listed for Bacteria in 2004 then moved to category 4b.
 - Listed for Depressed DO, Nitrate-Nitrogen, Total Phosphorus and Impaired Biological Habitat Concerns
 - Town Branch (1810) tributary has concerns for Bacteria, Do and Nitrate-Nitrogen



Plum Creek Watershed

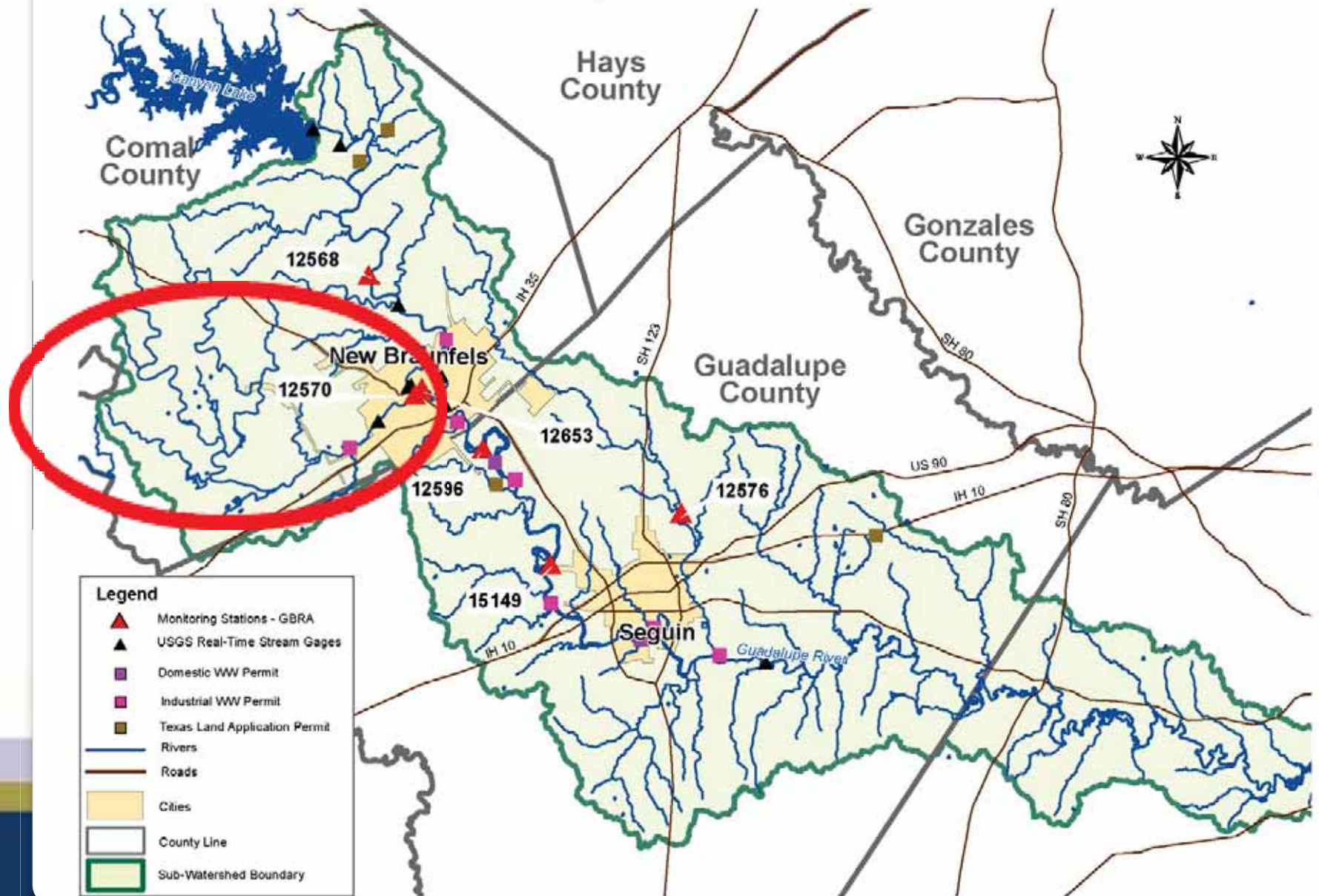


Priority Water Bodies

- Comal River (Segment 1811) and Dry Comal Creek (Segment 1811A)
 - The Comal River is currently not listed but bacteria has been increasing
 - The Dry Comal Creek was listed for bacteria under category 5c in 2010



Middle Guadalupe River Watershed Part A

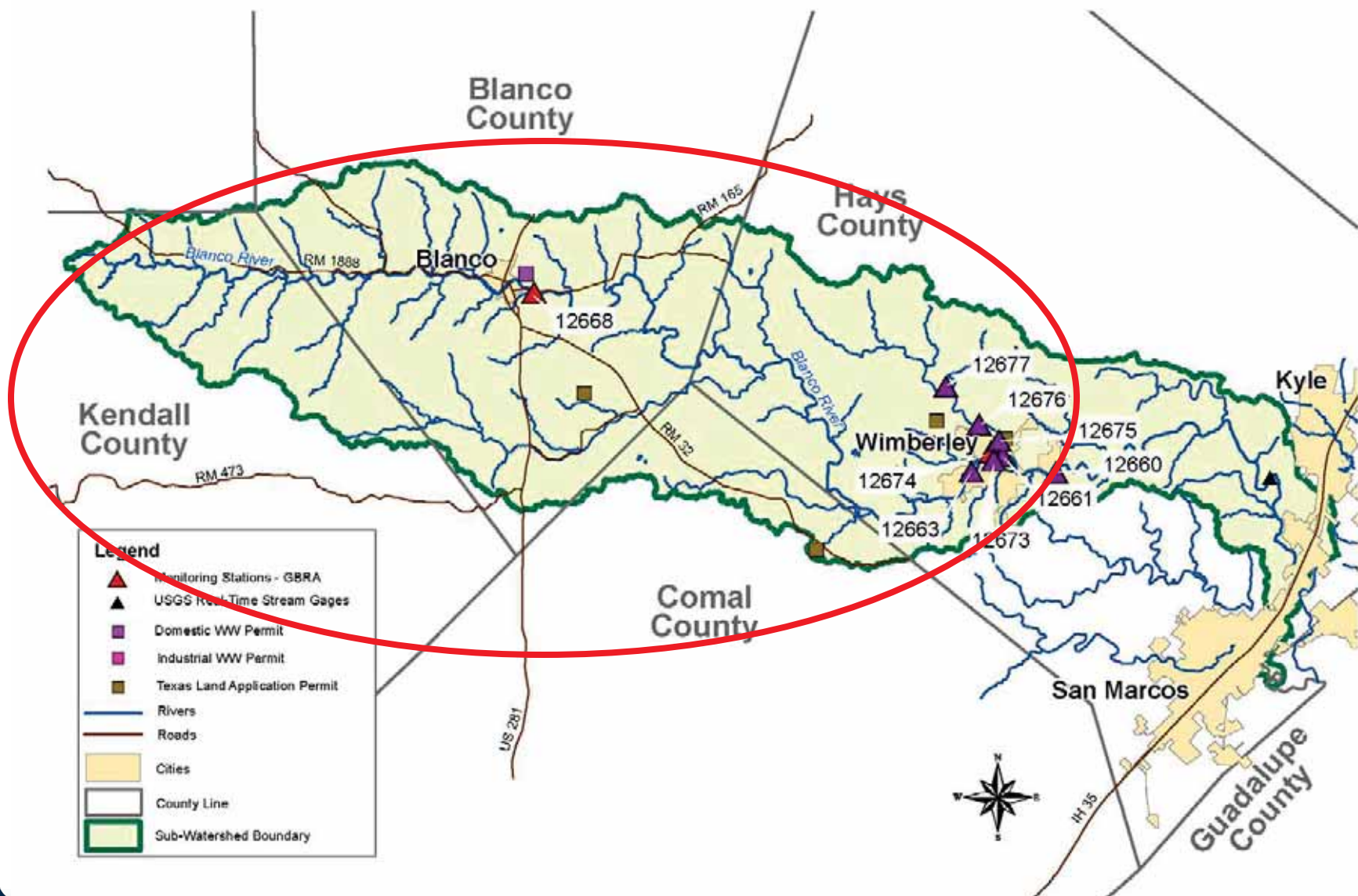


Priority Water Bodies

- Upper Blanco River (Segment 1813)
 - Listed for Depressed DO in 2006 but removed from list in 2014



Blanco River Watershed

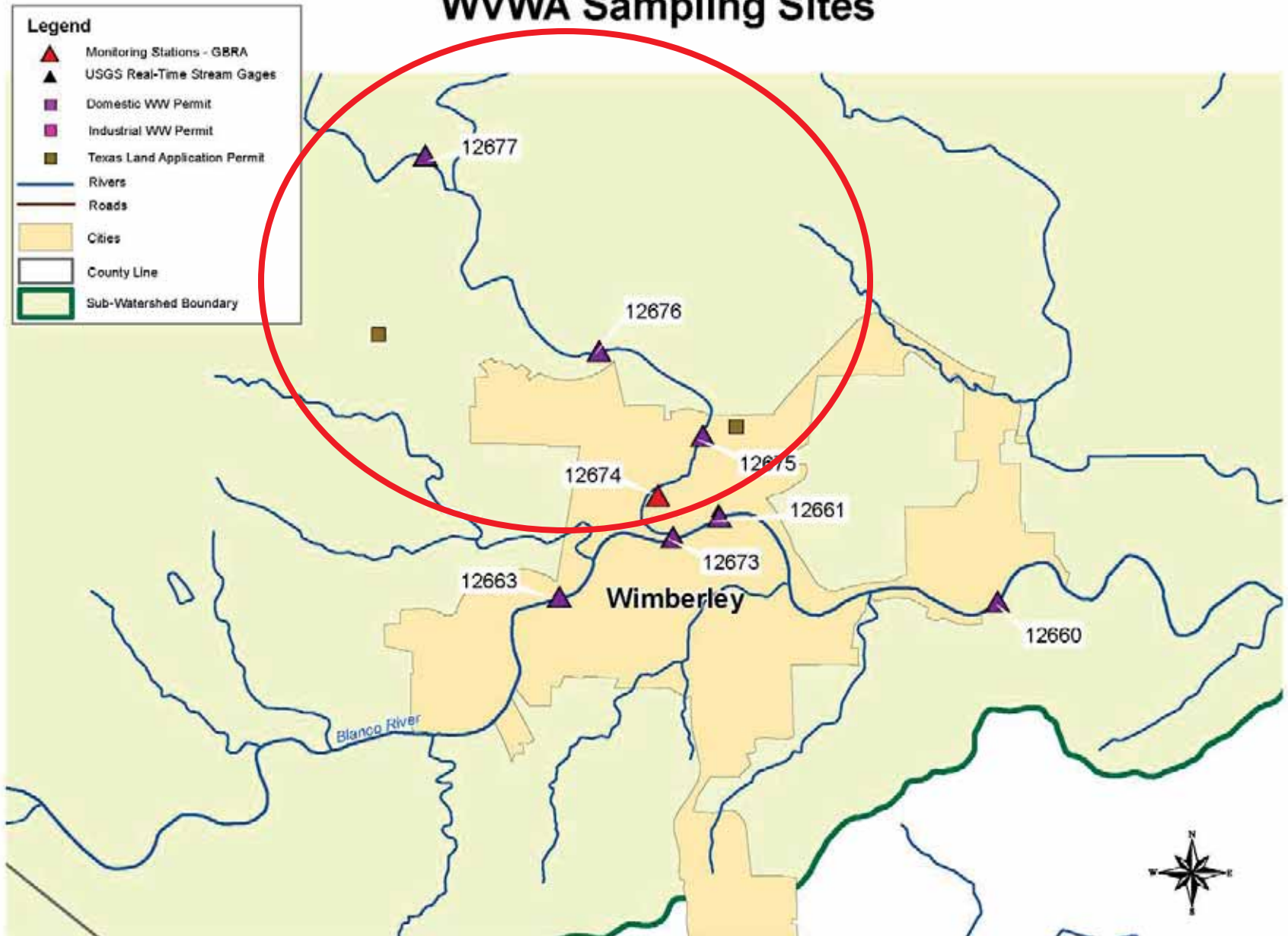


Priority Water Bodies

- Cypress Creek (Segment 1815)
- Listed as a concern in 2010 for Depressed Dissolved Oxygen and Impaired Biological Habitat
- Dissolved Oxygen may be moved to 5c in 2016



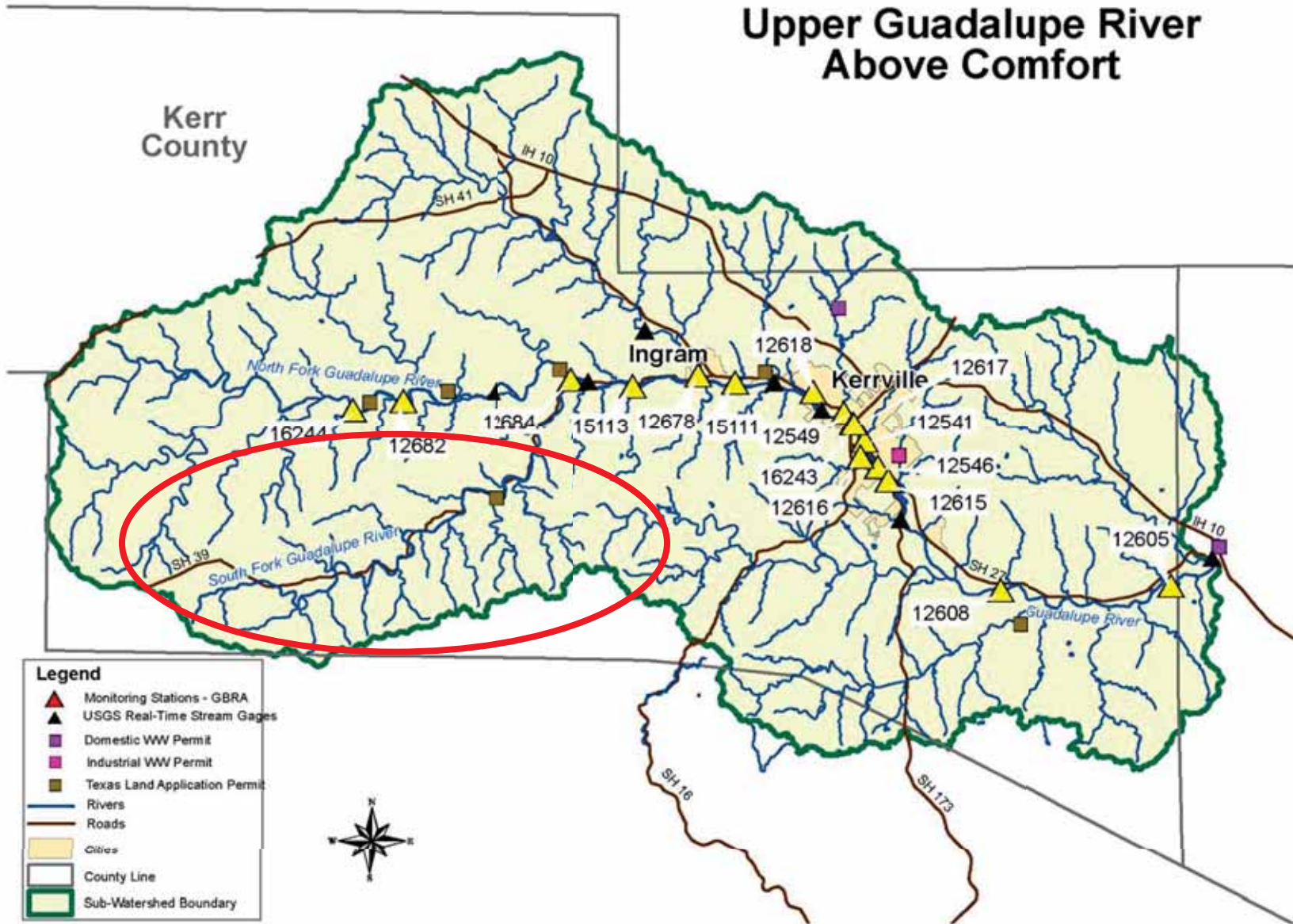
WVWA Sampling Sites



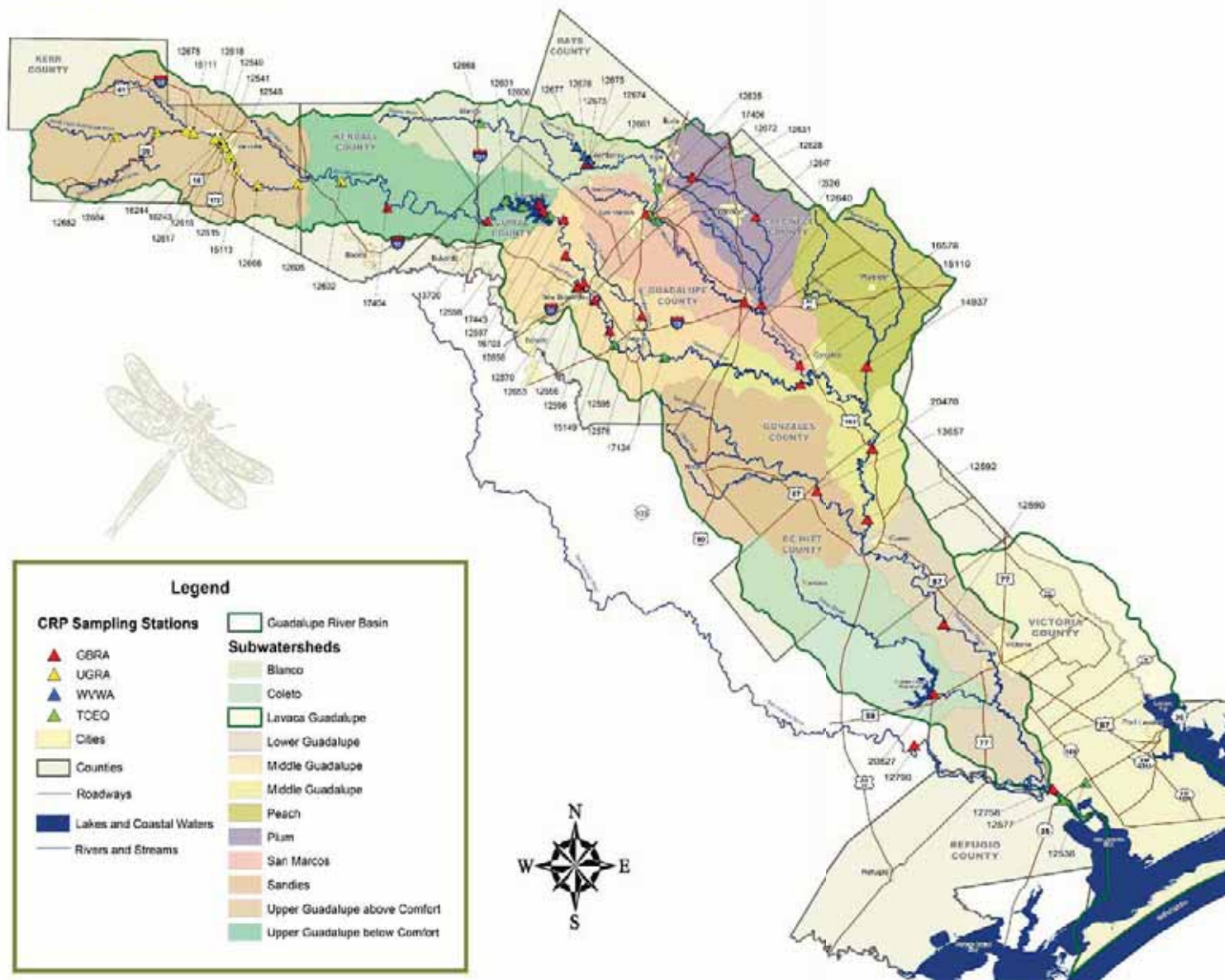
Priority Water Bodies

- South Fork of Guadalupe River (Segment 1818)
 - Listed as a concern for Depressed Dissolved Oxygen in 2014

Upper Guadalupe River Above Comfort



Guadalupe River Basin



Questions?

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