



# CRP Activities in Kerr County

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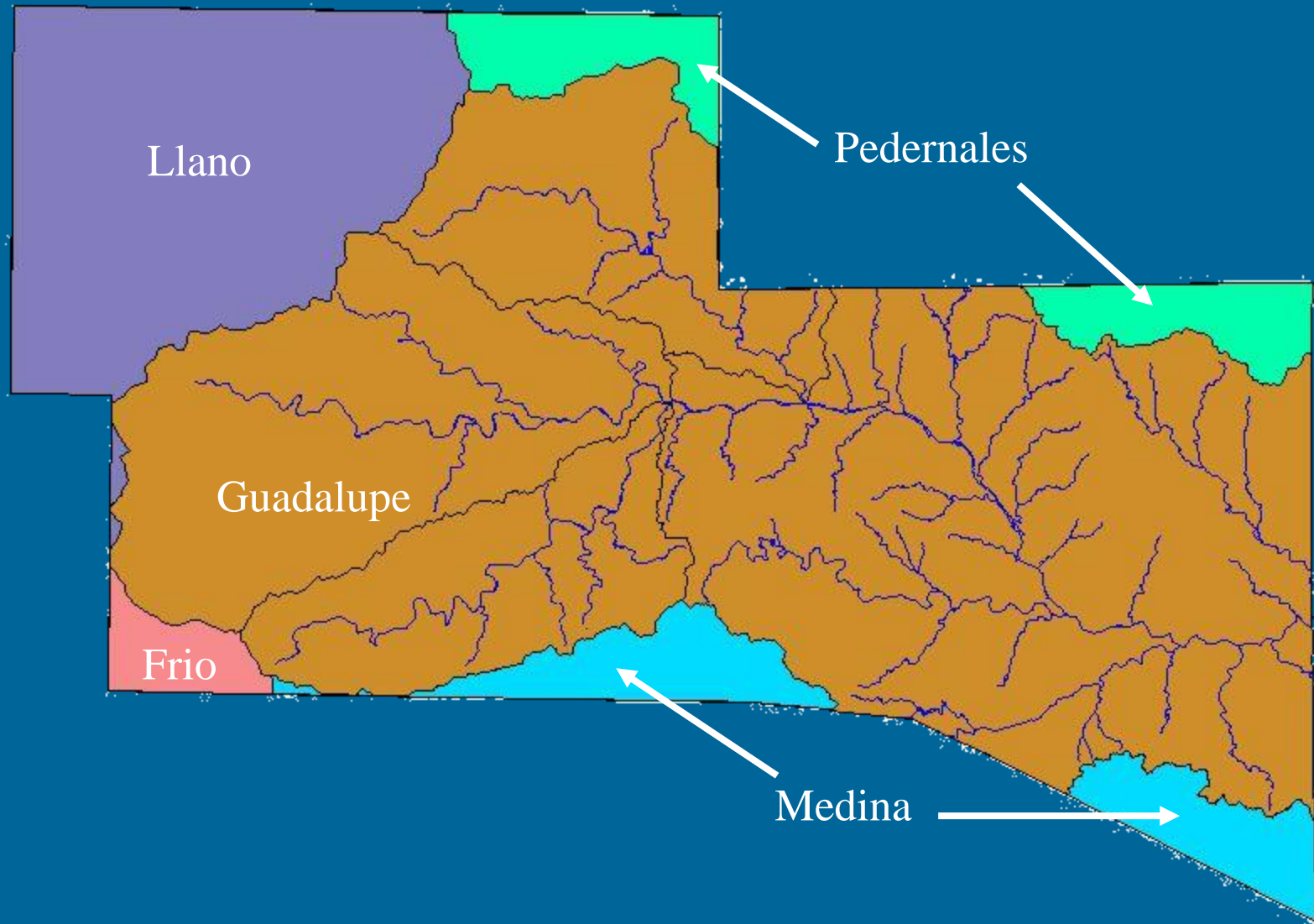
Upper Guadalupe River Authority





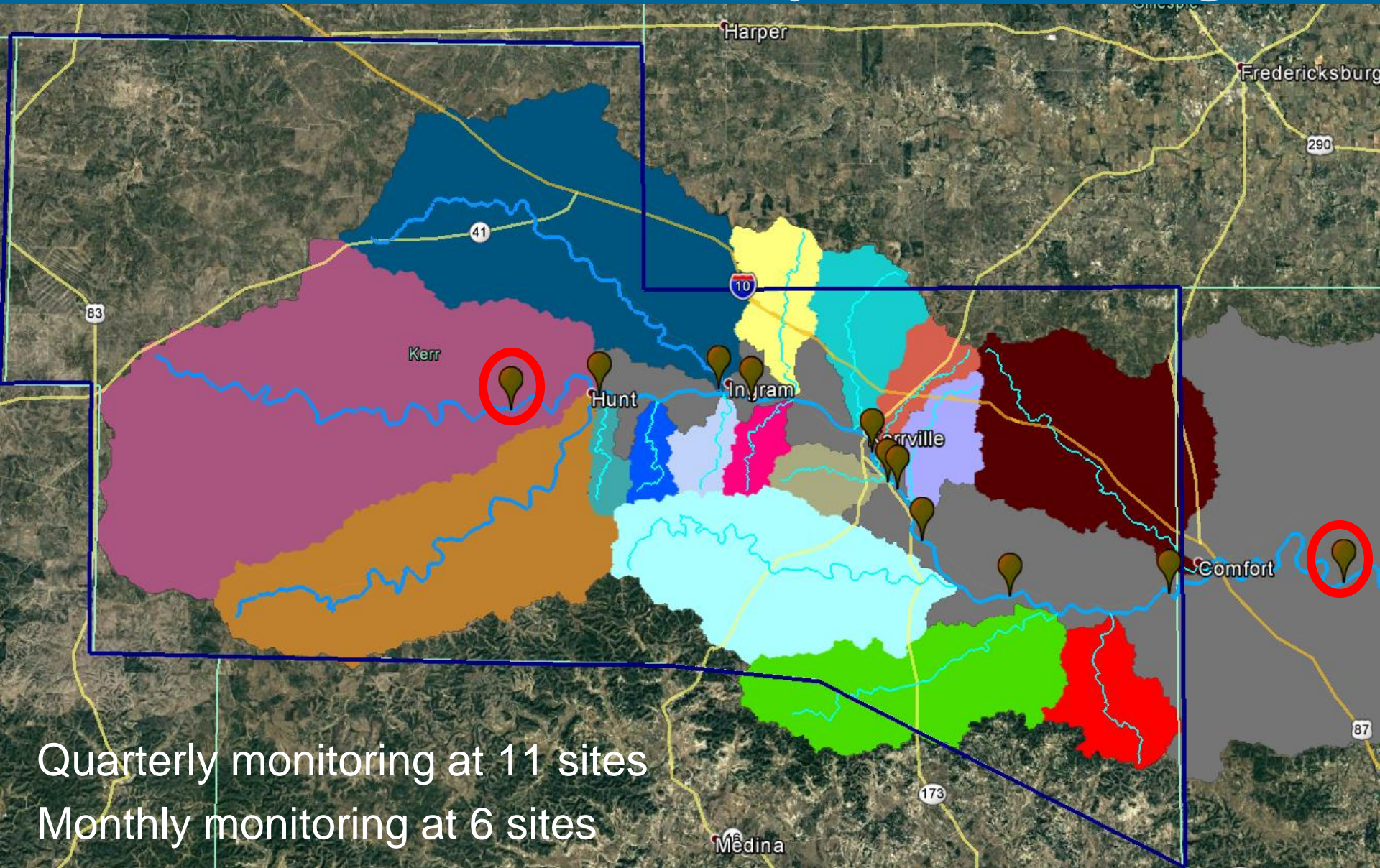


# Kerr County Watersheds and Sub Watersheds



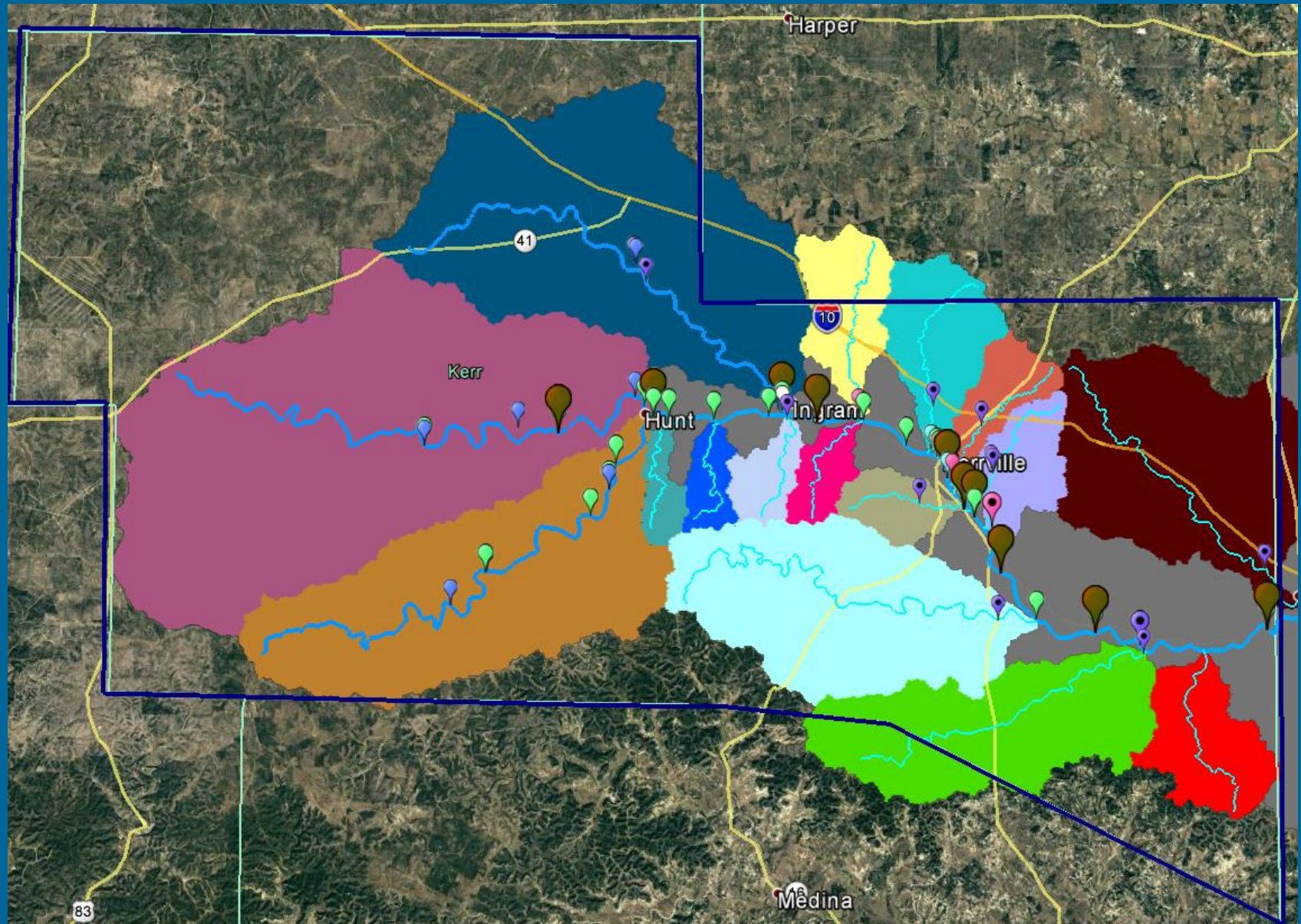


# CRP Water Quality Monitoring





# UGRA Water Quality Monitoring



# WQ Monitoring Summary 2018

## ■ CRP

- 16 sampling events
- 16 sites
- 1,046 parameters tested

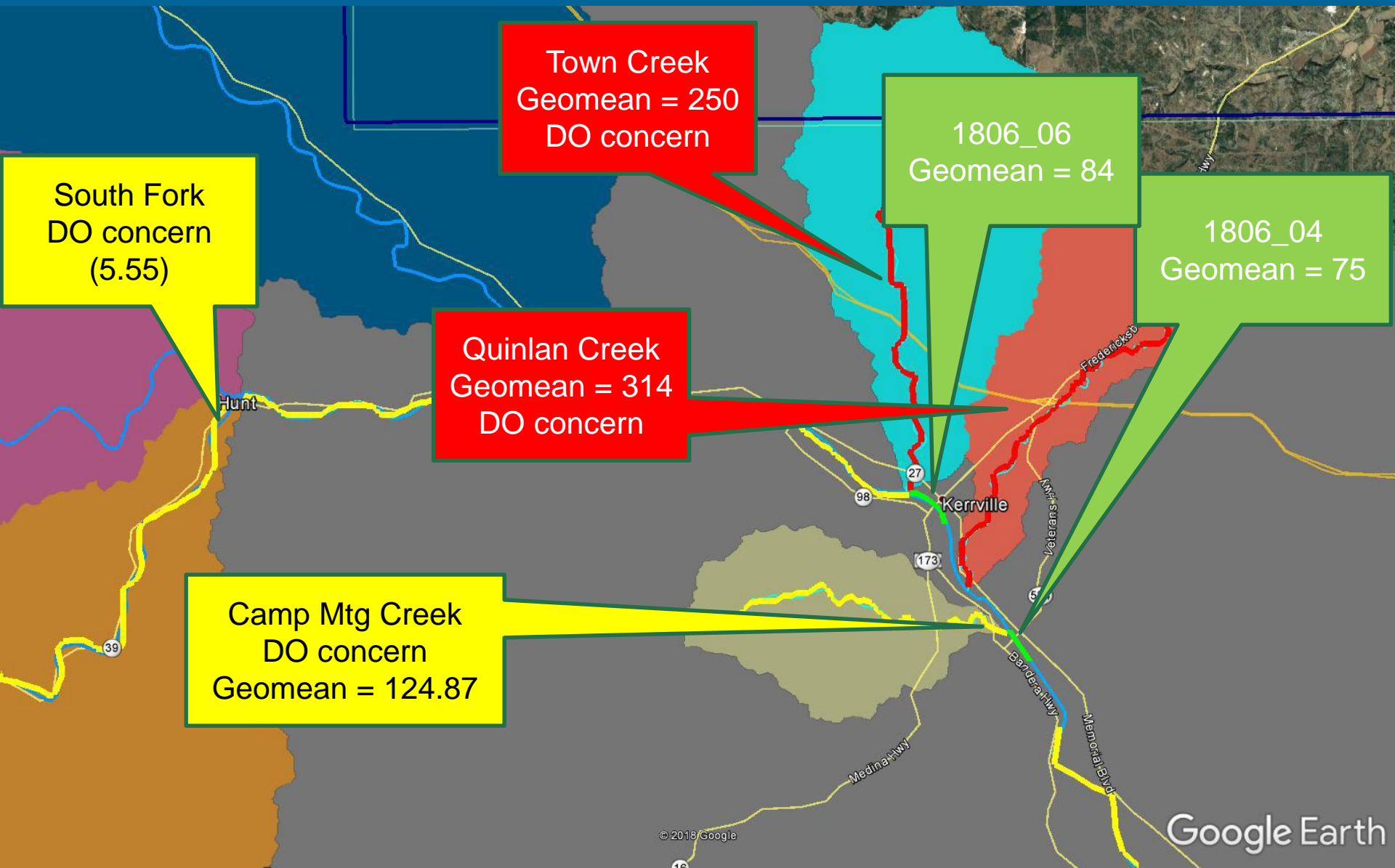


## ■ UGRA Water Quality Programs

- 37 sampling events
- 40 sites
- 1,274 parameters tested
- 8 water quality investigations

# Draft 2016 Integrated Report Findings

12/07 – 11/14



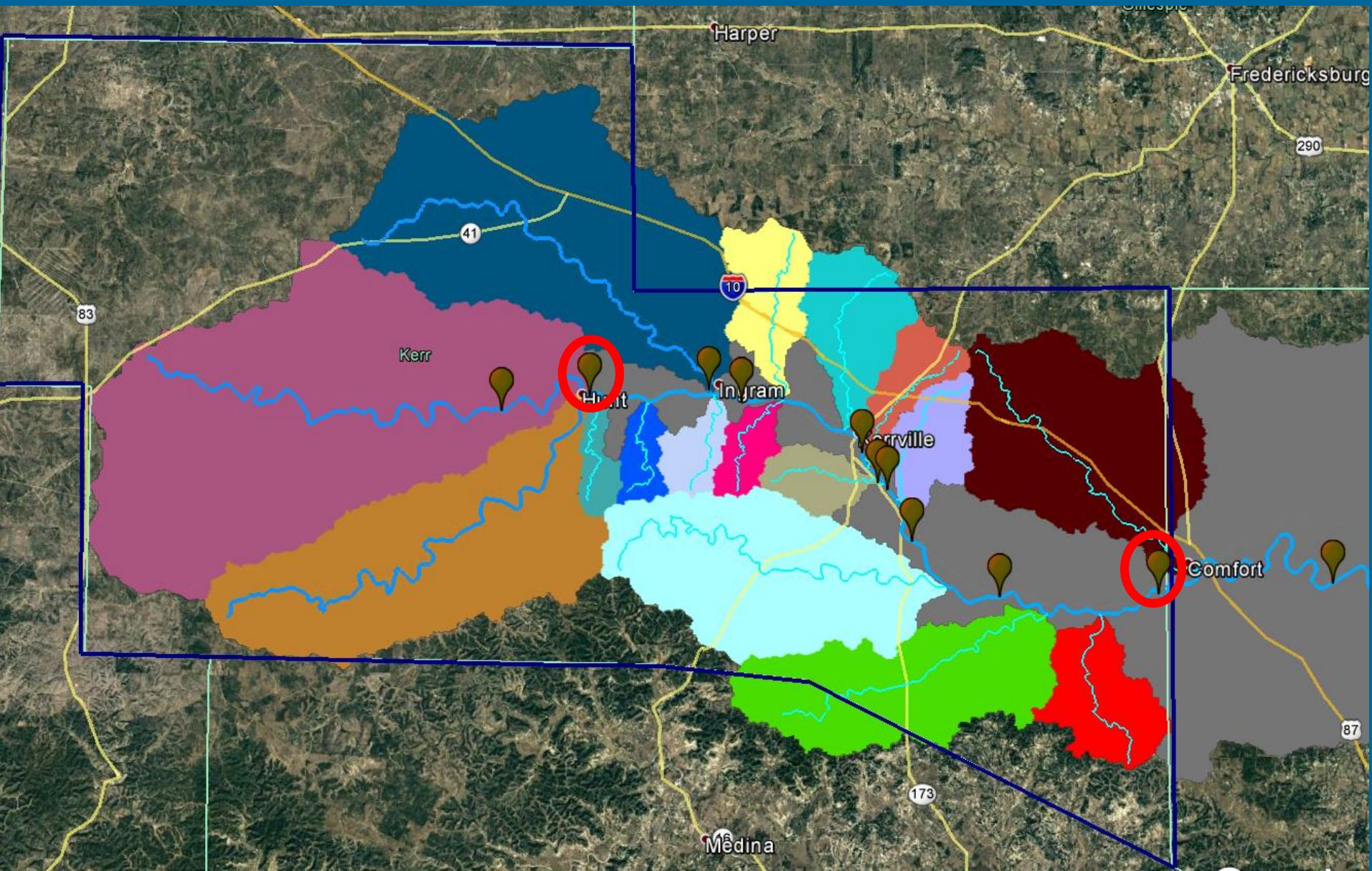
# Bacteria Reduction Plan

2011 - present

- Mainstem Impairments - 2002
- TMDL - 2007
- Implementation Plan – 2011
- Town and Quinlan Impairments – 2011
- Technical Support Document – 2017
- Implementation Plan Revision - 2018



# Water Quality Across Kerr County





# South Fork – La Junta (12684)



Average Flow = 22 cfs



# South Fork – La Junta 2003 - 2018

| AU 1818 01 General Use        |                 |         |         |                   |                                |
|-------------------------------|-----------------|---------|---------|-------------------|--------------------------------|
| Parameter                     | Mean            | Maximum | Minimum | # of Measurements | Screening Criteria             |
| Temperature (° C)             | 19.9            | 29.1    | 7.8     | 64                | 30.00                          |
| pH                            | 7.9             | 8.1     | 7.4     | 64                | 6.5 – 9.0                      |
| Chloride (mg/L)               | 10.7            | 36.2    | 7.1     | 62                | 50.00                          |
| Sulfate (mg/L)                | 8.4             | 15.3    | 4.6     | 62                | 50.00                          |
| Total Dissolved Solids (mg/L) | 275             | 329     | 239     | 64                | 400.00                         |
| NH3-N (mg/L)                  | NA              | NA      | NA      | NA                | 0.33                           |
| Total Phosphorus (mg/L)       | <0.04           | 0.06    | <0.04   | 62                | 0.69                           |
| Chlorophyll-a (µg/L)          | 1.2             | 5.6     | <1      | 61                | 14.1                           |
| Nitrate Nitrogen (mg/L)       | 0.18            | 0.74    | <0.04   | 55                | 1.95                           |
| TKN (mg/L)                    | 0.30            | 0.54    | <0.20   | 28                | N/A                            |
| AU 1806A Recreational Use     |                 |         |         |                   |                                |
| E. coli (MPN/100 mL)          | 18.2<br>Geomean | 310     | <1      | 61                | 126 Geomean                    |
| AU 1806A Aquatic Life Use     |                 |         |         |                   |                                |
| Dissolved Oxygen (mg/L)       | 7.8             | 11.2    | 4.8     | 64                | ≥4.0 Minimum &<br>≥6.0 Average |

# Guadalupe River at Hermann Sons (12605)



Average Flow = 137 cfs



# Guadalupe – Hermann Sons 2003 - 2018

| AU 1806 02 General Use        |               |         |         |                   |                                |
|-------------------------------|---------------|---------|---------|-------------------|--------------------------------|
| Parameter                     | Mean          | Maximum | Minimum | # of Measurements | Screening Criteria             |
| Temperature (° C)             | 21.0          | 29.6    | 9.4     | 63                | 30.00                          |
| pH                            | 8.0           | 8.4     | 7.4     | 64                | 6.5 – 9.0                      |
| Chloride (mg/L)               | 24.7          | 52.4    | 13.0    | 64                | 50.00                          |
| Sulfate (mg/L)                | 24.4          | 37.6    | 9.2     | 64                | 50.00                          |
| Total Dissolved Solids (mg/L) | 329           | 379     | 275     | 64                | 400.00                         |
| NH3-N (mg/L)                  | NA            | NA      | NA      | NA                | 0.33                           |
| Total Phosphorus (mg/L)       | <0.04         | 0.07    | <0.04   | 64                | 0.69                           |
| Chlorophyll-a (µg/L)          | 1.25          | 6.6     | <1      | 62                | 14.1                           |
| Nitrate Nitrogen (mg/L)       | 0.55          | 1.49    | <0.05   | 56                | 1.95                           |
| TKN (mg/L)                    | 0.33          | 1.01    | <0.2    | 28                | N/A                            |
| AU 1806A Recreational Use     |               |         |         |                   |                                |
| E. coli (MPN/100 mL)          | 45<br>Geomean | 520     | 5       | 62                | 126 Geomean                    |
| AU 1806A Aquatic Life Use     |               |         |         |                   |                                |
| Dissolved Oxygen (mg/L)       | 8.8           | 13.9    | 6.0     | 63                | ≥4.0 Minimum &<br>≥6.0 Average |

# Accessing Data

- TCEQ Surface Water Quality Monitoring
- <https://www.tceq.texas.gov/waterquality>

## Data and Maps

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- **Surface Water Quality Data Viewer**

Use this viewer to locate monitoring stations and download water quality data.

- **Clean Rivers Program Data Tool**

Extract data from the TCEQ's Surface Water Quality Information System (SWQMIS).

- **Managing Surface Water Quality Data**

Guidance and forms for submitting or requesting water quality data from SWQMIS.

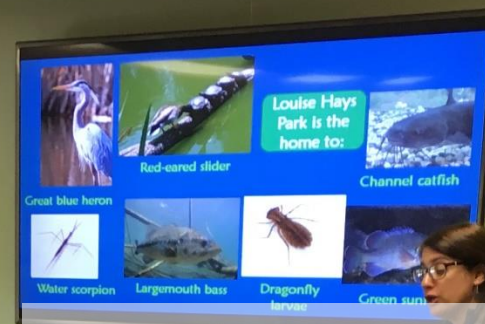
- **Hydrography Data and Maps**

Map-based data viewers. GIS data for classified segments and other hydrology layers.



# Public Outreach Activities

- Volunteer Summer Study
- Classes
- Special Events
- Workshops
- Radio Programs



49 events  
in 2018

- Newspaper articles
- Commercials
- Information booths
- River Clean Ups
- EduScape tours

3,174  
members of  
the public



# Welcome

## UGRA EduScape



### Quick Facts:

Water demand in Texas is projected to increase dramatically in the future as the state continues to have strong population growth. As a result, protecting water resources and utilizing water conservation practices will be essential to sustain the state's water supply and demand balance. The most economical and environmentally friendly new water source is water saved through conservation.

### Did You Know?

The Texas Hill Country sits on the boundary of the Chihuahuan desert. Our position along this transitional zone has resulted in a diverse plant community where both desert and non-desert plants thrive. It also highlights the importance of our springs and river. We must wisely manage our water resources for future generations.

### What You Will Find

As you stroll along the landscape pathway you will see numerous examples of water conservation and stormwater detention practices that help stretch scarce water supply and protect all our water resources including the Guadalupe River. You can implement these same practices in your home or business landscape.

All of the plants featured in EduScape are native to our region and a few adapted plants are included as well. Native and adapted plants are more drought and stress tolerant, so they require less water and maintenance than other varieties. Using only native plants provides additional benefits to wildlife and biodiversity. Look for the plant labels and consider including some of these species in your landscape.

1. Welcome
2. The Guadalupe River
3. Rainwater Harvesting
4. Texas Wildflowers
5. Pervious Surfaces
6. Dry Creek Bed
7. Lawns
8. Condensate Collection
9. Rain Gardens
10. Xeriscape

UGRA recognizes the innovative stewardship of the Hill Country Master Gardeners in the design and construction of the UGRA EduScape, 2018.





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Be Flood Aware 2017



Watch later



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