



CRP Activities in Kerr County

Tara Bushnoe

Natural Resources Coordinator
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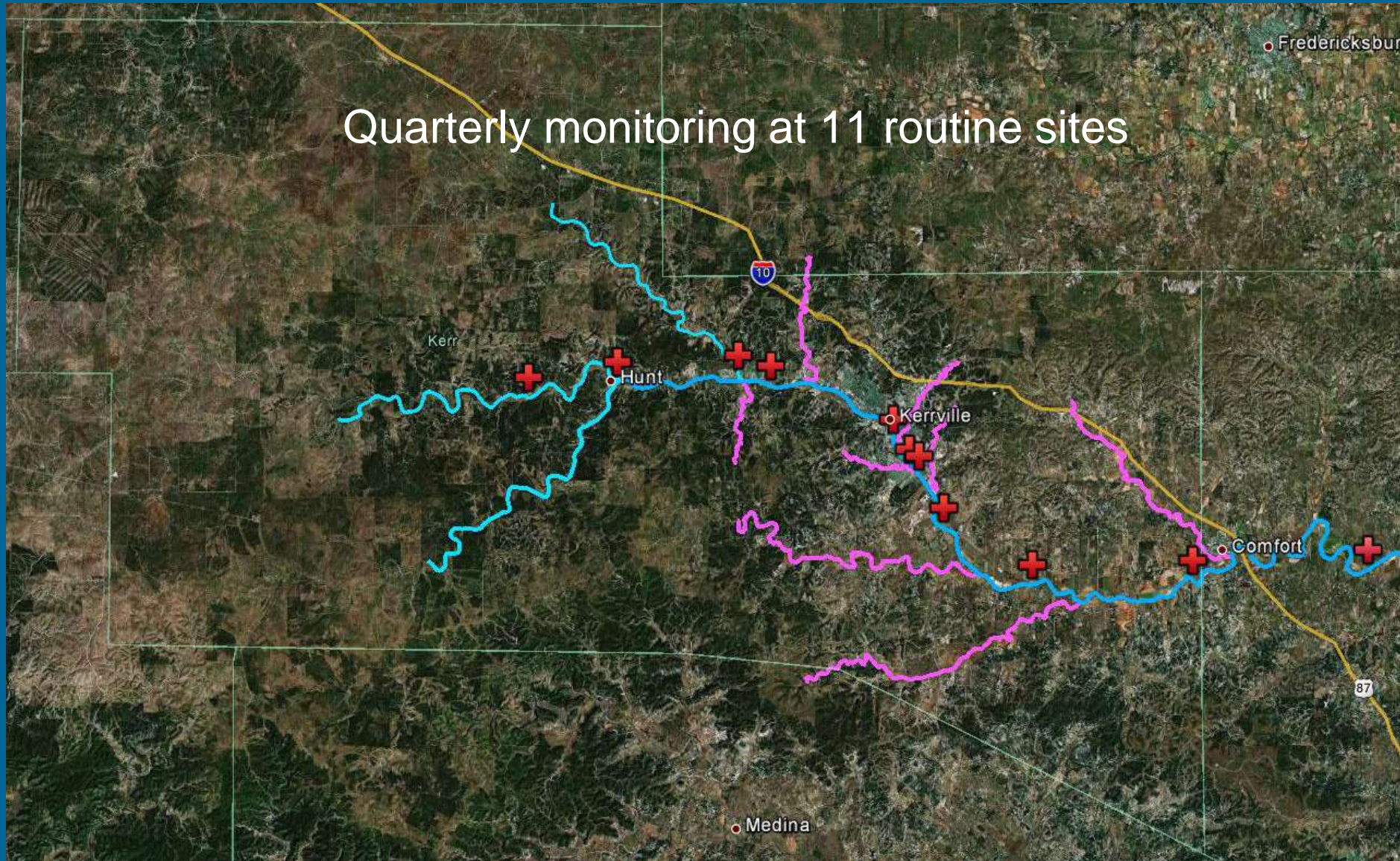
Clean Rivers Program Activities in Kerr County

- Water Quality Monitoring
- Public Outreach

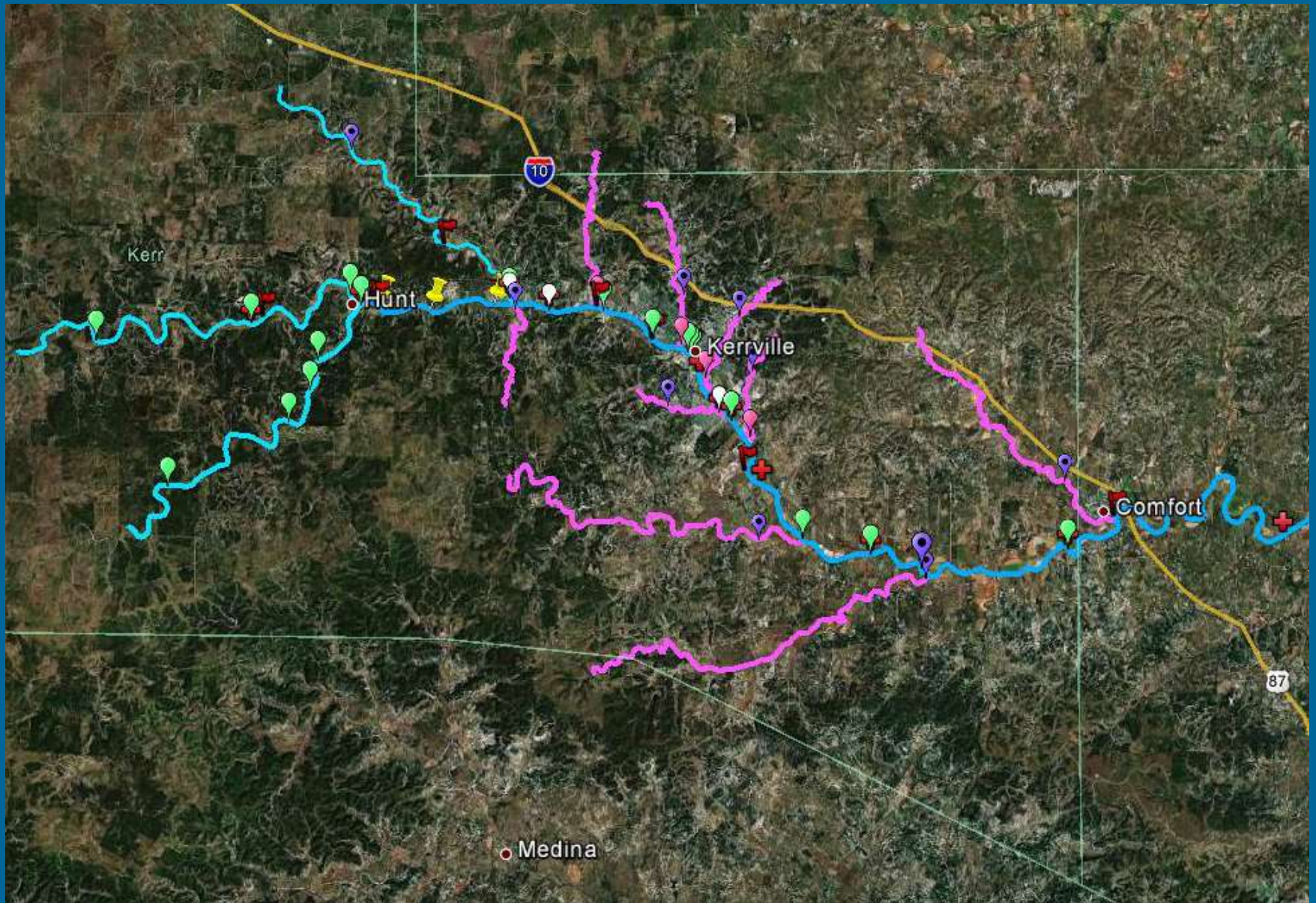


CRP Water Quality Monitoring

Quarterly monitoring at 11 routine sites



UGRA Water Quality Monitoring



WQ Monitoring Summary 2014

■ CRP

- 4 sampling events
- 11 sites
- \$11,415

■ UGRA Water Quality Programs

- 43 sampling events
- Over 40 sites
- 12 water quality investigations
- \$23,551

Public Outreach Activities

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

- Newspaper articles
- Commercials
- Information booths
- Major Rivers
- River Clean Up

39 events in 2014

Questions





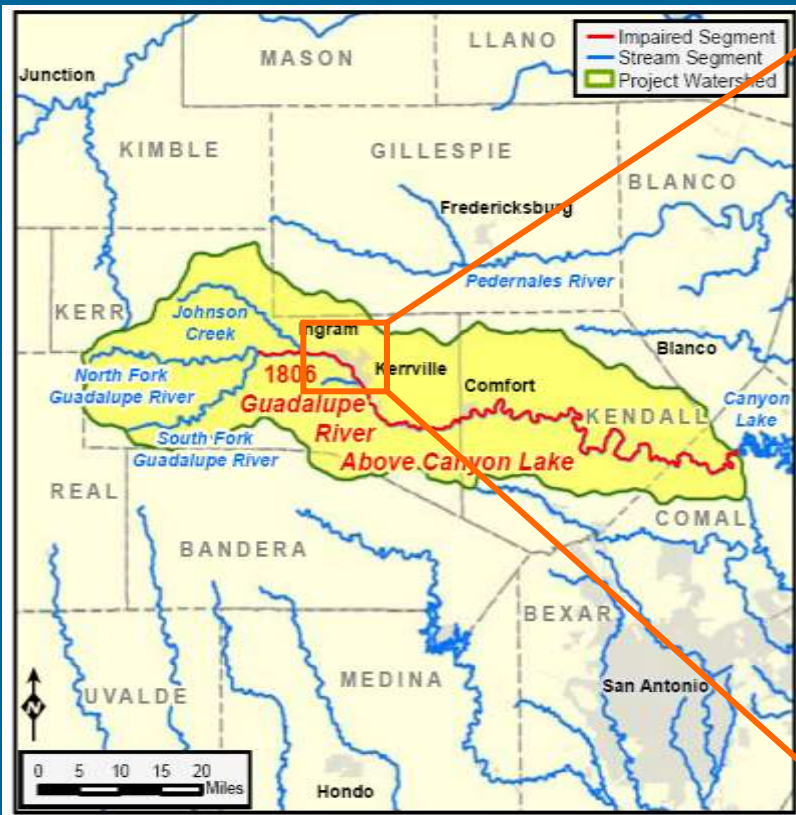
Bacteria Reduction Plan for the Upper Guadalupe River

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Impaired Area



Background Information

- Bacteria impairment for contact recreation in a 3.5 mile reach of Guadalupe River in Kerrville
- Placed on 303(d) list in 2002
- TMDL approved in 2007
- Implementation Plan approved in 2011
- Bacteria Reduction Plan grant 2011 - 2014

Ultimate Goal

Reduce bacteria concentrations



Primary Sources of Bacteria

- Birds nesting on SH 16 Bridge
- Large flocks of non-native waterfowl
- Septic systems
- Pollution from general urban runoff
- Pet waste

Bacteria Reduction Plan

- Partnership with local agencies
 - UGRA
 - City of Kerrville
 - Kerr County
 - TxDOT
 - Clean Rivers Program



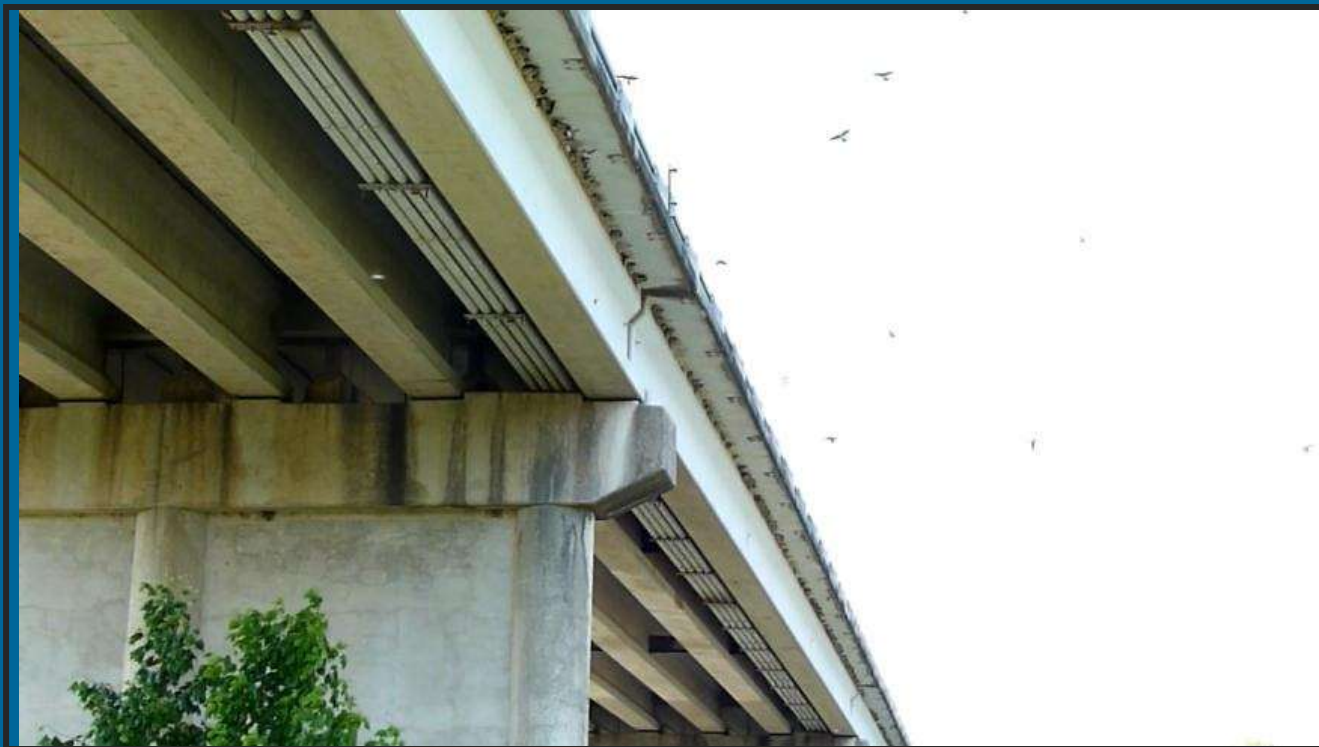
Bacteria Reduction Plan

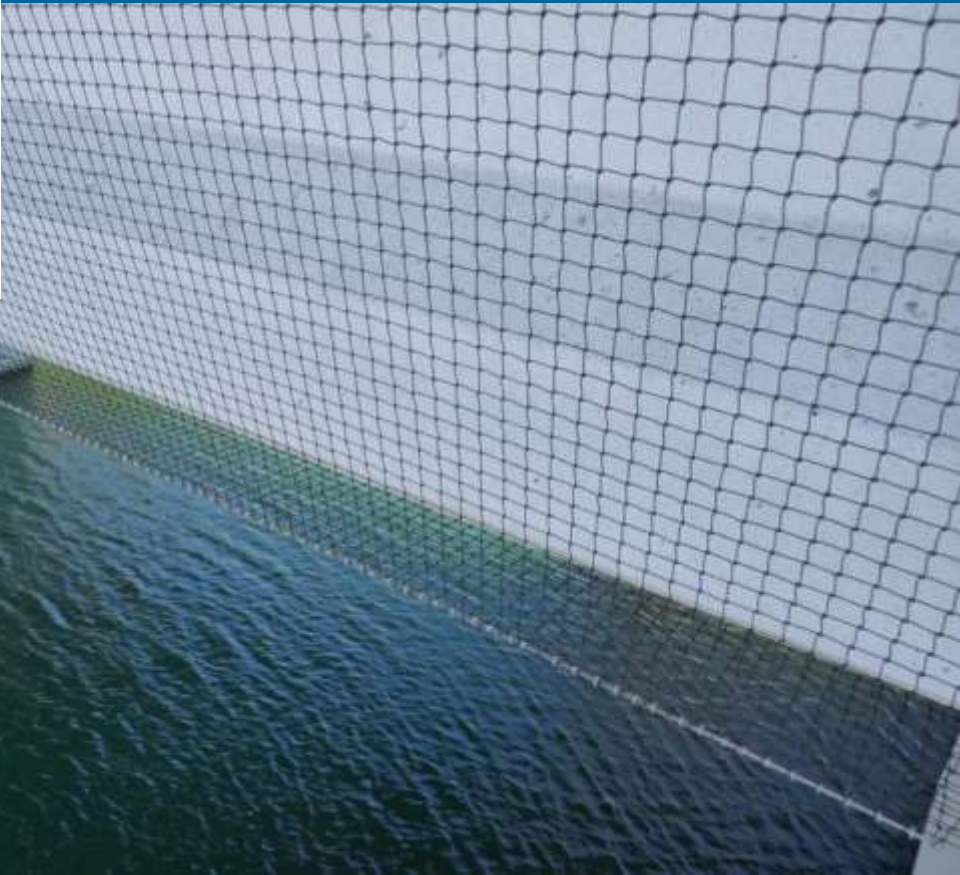
- Partnership with local agencies
- Reduce bacteria levels through:
 - Bird deterrent structures
 - Pet waste stations
 - Waterfowl management
 - Septic system education
 - Manage storm water runoff
 - Education



Bacteria Reduction Plan Results

- Installed bird exclusion/deterrent devices on SH16 bridge





Bacteria Reduction Plan Results

- Purchased 22 pet waste stations



Poop Pollutes!

Bacteria found in pet and waterfowl feces have become a problem in the Upper Guadalupe River through Kerrville. In order to maintain swimming, wading, and other recreation uses of the park we need your help.

Clean up after your pet to help keep our river clean!

A photograph showing two people in kayaks on a river, with trees and a bridge in the background.

A map of the City of Kerrville, Texas, highlighting the Upper Guadalupe River and several parks including Lake Kerr, Lake Roubidoux, and Lake Mead.

Problems

- * Bacteria levels in riverside park areas are much higher than other areas of the Upper Guadalupe River, and sometimes exceed the State standard for contact recreation
- * Pet waste may contain harmful pathogens (bacteria, viruses, protozoa) that can make the water unsafe for recreation and other uses
- * Pet waste contains nutrients that may accelerate the growth of nuisance algae

A close-up photograph of a golden retriever's face, looking directly at the camera with its mouth slightly open.

Solutions

- * Be responsible for your pet – scoop the poop and then toss it in the trash
- * Be a hero – pick up pet waste left behind by others and report violators to the Kerr County Environmental Health Department at 896.9020
- * Notify the Upper Guadalupe River Authority at 896.5445 if the bag dispenser is empty

Guadalupe River Bacteria Levels

Location	E. coli bacteria (log/100ml)
UGRA Lake	~10
Upstream of Lemna Street	~20
Riverside Park	~180
Sprink Rock	~20

It's the Law!

TEXAS HEALTH & SAFETY CODE § 341.013
Waste products, polluting material ... or other waste of any kind may not be deposited or disposed of in a manner that may cause the pollution of the surrounding land or the contamination of groundwater or surface water. **Maximum fine: \$200**

Brought to you by the TAMU Studentholders Group, find out more at www.sgrs.org/projects.html
Material adapted from the City of Austin Watershed Protection

Let's keep OUR river clean!

Off leash is not off the hook


Bacteria Reduction Plan Results – waterfowl management

- Education
 - Don't feed the ducks
 - Don't release unwanted waterfowl
- Oiling Eggs
- Trapping and Relocation



Bacteria Reduction Plan Results

- Compiled septic system information for homeowners



THE DO's of Septic Systems

- ✓ DO learn the location of your septic system and drainfield.
Keep a sketch of it with your maintenance records for service visits.
- ✓ DO keep a detailed record of repairs, pumpings, inspections, permits issued, and other maintenance activities.
- ✓ DO have your septic system inspected annually.



TAKE CARE OF YOUR SEPTIC SYSTEM AND IT WILL TAKE CARE OF YOU

Check for signs of system failure:

- Slowly draining sinks and toilets
- Gurgling sounds or backups in the plumbing
- Sewage odors
- Areas in the yard that remain wet during dry times
- Patches of excessive grass or plant growth

If you see signs of failure, schedule an inspection and repairs immediately.

Bacteria Reduction Plan Results – urban runoff

- Interactive kiosk installed at Riverside Nature Center and Butt-Holdsworth Library
- Watershed model presentations
- Clean ups
 - 2014 UGRA Annual River Clean 6,495 pounds
 - UGRA Annual River Crossing Clean Up Program 27,635 pounds in 2014
 - Town Creek Clean Up Team
 - Kerrville South CAG
- City of Kerrville 433 hours of street sweeping in FY14
- Storm drain marking program





Bacteria Reduction Plan Results – education

- Presentations
- Booths
- Public Service announcements
- Press releases
- Newspaper articles

Bacteria Reduction Plan Results – water quality monitoring

- 2012 Integrated Report
 - Downstream section meeting standards
- 2014 draft Integrated Report
 - Upstream section meeting standards

Moving Forward

- Continue water quality monitoring
- Inspect bird deterrent structures
- Fund pet waste refill supplies as needed
- Continue waterfowl management
- Increase circulation of OSSF information
- Continue river clean ups & storm drain marking program
- Continue public education





The Bacteria Reduction Plan for the Upper Guadalupe River was financed through grants from the Texas Commission on Environmental Quality

