# Bacteria Reduction Plan
## for the Upper Guadalupe River

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# Guadalupe River above Canyon Lake TMDL

- 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

# Impaired Area

# Bacteria Reduction Plan

- Funded by TCEQ Non Point Source Program
- $475,201 Total Project
  - 60% Federal Funding ($285,121)
  - 40% Local Match ($190,080)
- October 15, 2011 – August 31, 2014
- Partners
  - UGRA
  - City of Kerrville
  - Kerr County
  - TXDOT

# Match Requirement

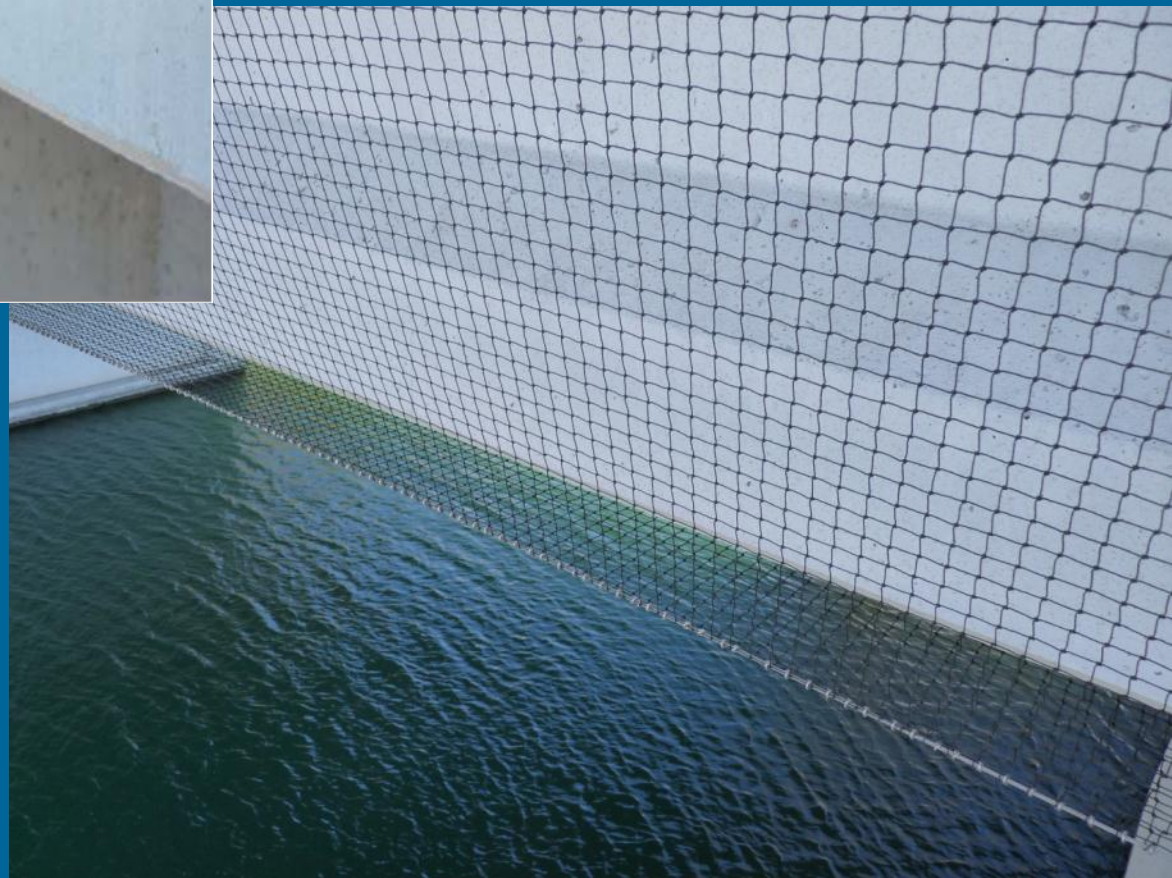
- UGRA
- City of Kerrville
- Kerr County
- TxDOT
- Clean Rivers Program

# Wildlife

- Install bird exclusion/deterrent structures
- Reduce bird feeding
- Manage waterfowl population
- Partners involved:
  - UGRA
  - City of Kerrville
  - Kerr County
  - TxDOT

# Wildlife Results

- Install bird exclusion/deterrent devices
  - Bird deterrent structures designed for SH 16 and SH 534 bridges
  - Plans reviewed by local partners
  - Comments incorporated
  - TXDOT utility installation agreement
  - Publically bid
  - Contractor selected
  - Construction completed January 30, 2013



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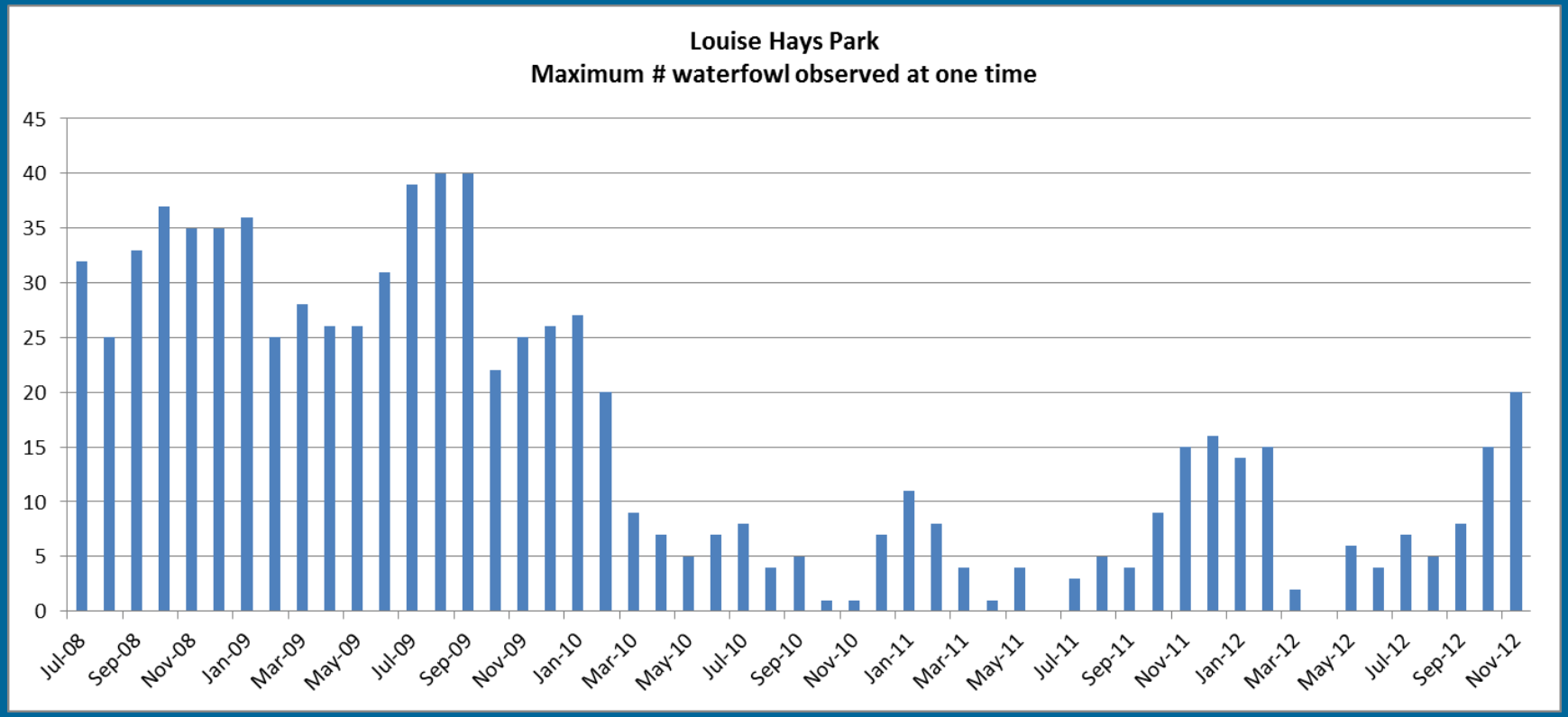

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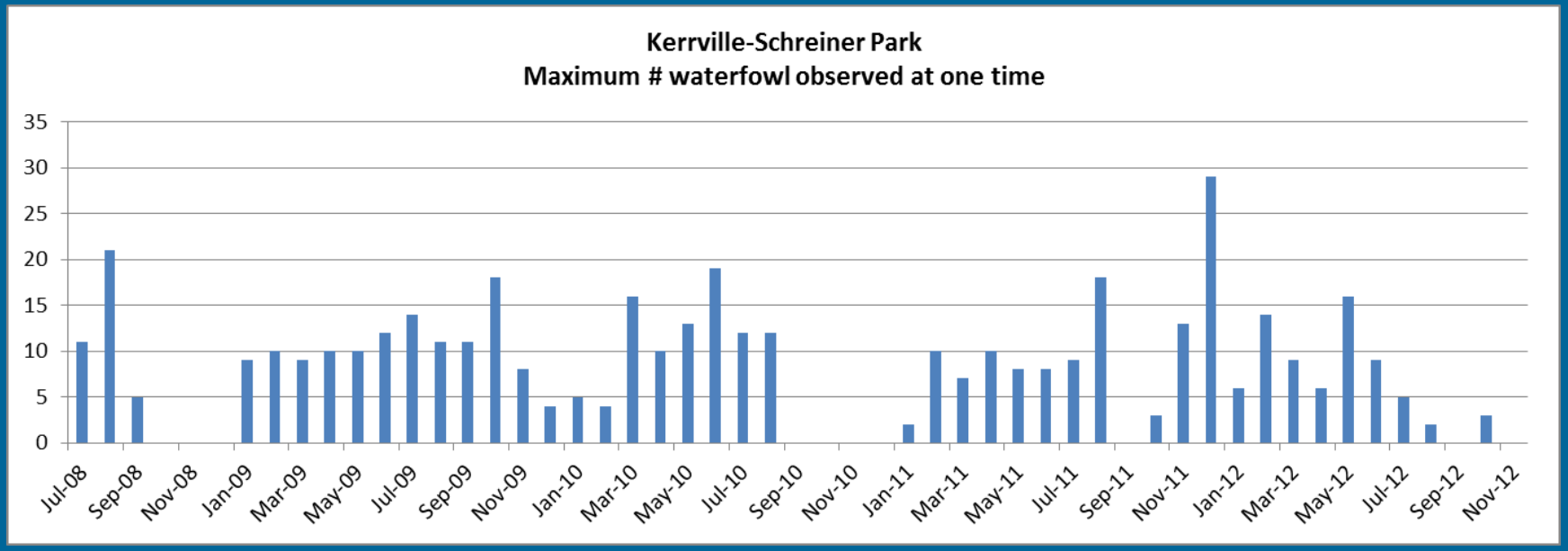
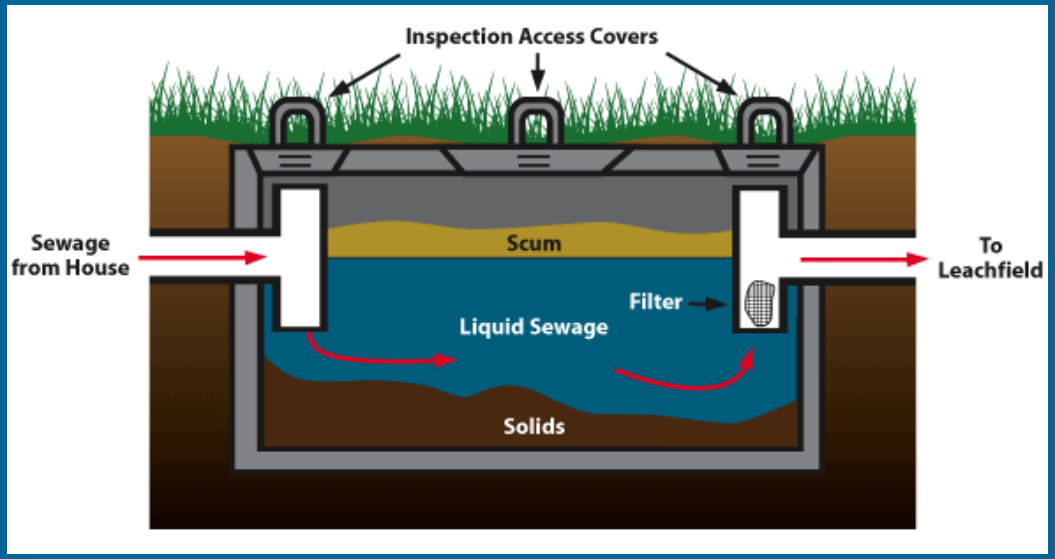


# Human Contributions

- Ongoing lateral sewage line replacement
- Sewer inspection and rehabilitation
- OSSFs
- Partners involved:
  - UGRA
  - City of Kerrville
  - Kerr County
  - TxDOT



# Human Contributions Results

- Mapping of On-site Sewage Facilities (OSSF)
  - Designate priority area – 300 feet from waterbody
  - Identify properties in area
  - Cross reference with OSSF database

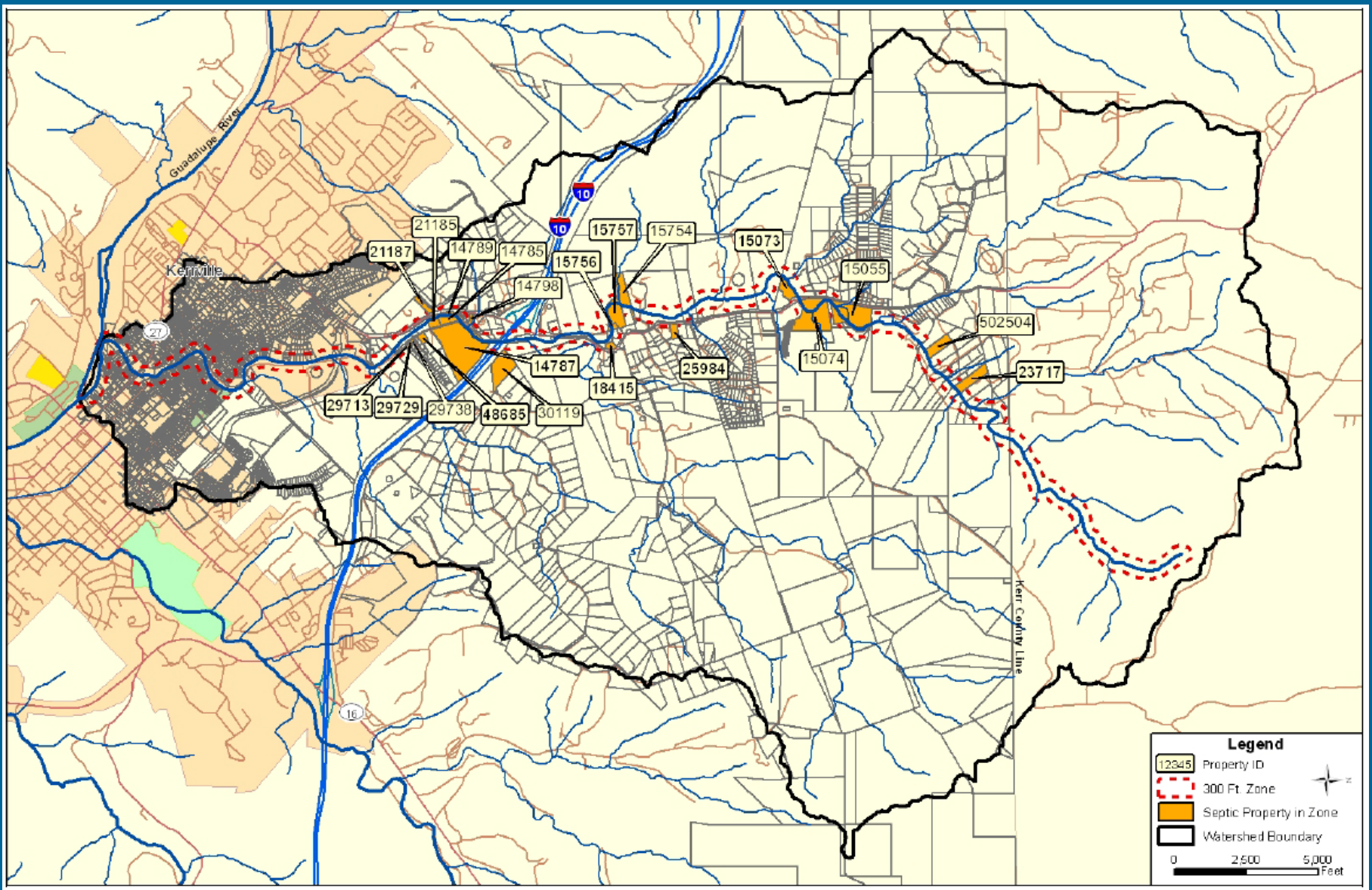



Figure 2: Town Creek Septic System Priority Zone

# Human Contributions Results

- Summary of OSSFs in priority area

| Watershed | Total Number of Septic Properties | Number of Septic Properties in Priority Area |
|---|---|---|
| Town Creek | 276 | 21 |
| Camp Meeting Creek | 906 | 69 |
| Quinlan Creek | 121 | 9 |
| Guadalupe River | 84 | 6 |
| **Total** | **1390** | **105** |

# Pet Waste

- Implement education program
- Install pet waste stations
- Partners involved:
  - UGRA
  - City of Kerrville
  - Kerr County

# Pet Waste Results

- Seven active station in Flat Rock Park
- Five active stations in Kerrville Parks
- Ten planned stations along River Trail

# Pet Waste Results

- Education materials in Years 2 and 3
- Effectiveness monitoring
  - Weekly monitoring
  - 80-100 pounds of waste/month
  - **2,925 pounds removed since November 2010**
  - 1,207 pounds removed in Year One

# Urban Runoff

- Storm water education programs
- River clean ups
- Street sweeping
- Partners involved:
  - UGRA
  - City of Kerrville

# Urban Runoff Results

- Interactive kiosk installed at Riverside Nature Center
- Watershed model presentations
- Clean ups
  - 2012 UGRA Annual River Clean 11,165 pounds
  - UGRA Annual River Crossing Clean Up Program 15,020 pounds in 2012
  - Tim Lewis work on Town Creek
- City of Kerrville 488 hours of street sweeping

Advanced Kiosks
click here to begin
Hop Over
And Learn How to Keep OUR River Clean
Brought to you by the UGRA Bacteria Reduction Plan

# What's Next?

- Year 2
  - Continuation of Year 1 activities
  - Install pet waste stations
  - Waterfowl management
  - OSSF homeowner's guide
  - Education
  - TCEQ interactive webpage

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