



# GILLELAND CREEK TMDL IMPLEMENTATION PLAN YEAR 3

Lauren Young

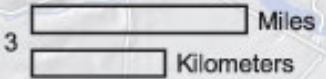
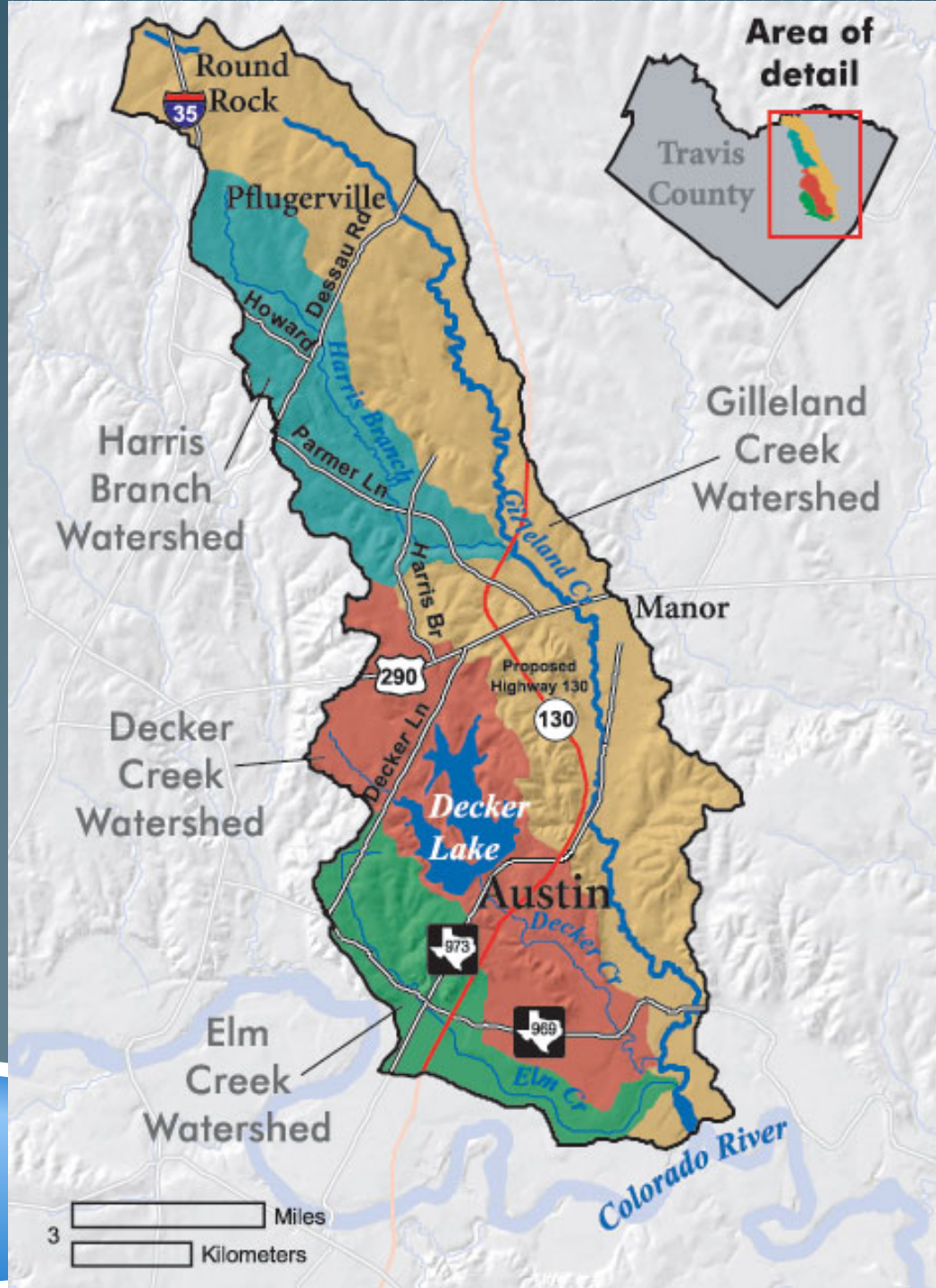
TCEQ TMDL Program

Monday, April 7, 2014



# THE TMDL PROCESS







# WHY GILLELAND CREEK?

- „ 2004 303(d) list
  - „ Elevated *E. coli* densities
  - „ Contact recreation standard
- „ *E. coli*
  - „ Bacteria commonly found in human and animal waste
  - „ Often indicate the presence of disease-causing microorganisms
  - „ Can pose a threat to public health



# GILLELAND CREEK PARTNERS

- „ City of Pflugerville
- „ City of Austin
- „ City of Round Rock
- „ Travis County
- „ Lower Colorado River Authority
- „ Austin Water Utility
- „ Windermere Utilities
- „ UT Center for Research in Water Resources
- „ Texas AgriLife Extension Service
- „ Texas State Soil and Water Conservation Board
- „ Natural Resources Conservation Service
- „ US Fish and Wildlife Service
- „ Texas Stream Team
- „ Volunteers in the watershed



# ON-SITE SEWAGE FACILITIES

- „ Identify, prioritize, inspect and bring into compliance malfunctioning on-site sewage facilities

- „ Partners involved:

  - City of Austin

  - Travis County

  - TCEQ



# OSSF IMPLEMENTATION MEASURES

- „ Inspect up to 25% of highest priority OSSFs
  - COA 40% inspected, 1 system repaired, 1 in progress
- „ Provide educational materials to OSSF owners
  - COA distributed EPA SepticSmart Program door hangers



# CITY OF AUSTIN ADDITIONAL OSSF ACTIVITIES



- „ Revised Ordinance
  - „ Adopted City Council 10/3/2013 and TCEO 10/31/2013
- „ Free homeowner training
  - „ 2/22/2014
  - „ Maintenance of aerobic treatment systems

# NATURAL RESOURCE MANAGEMENT

- Programs to work with landowners to protect riparian areas
- Partners involved:
  - Governmental and Non-Governmental Programs
  - Local landowners





# IMPLEMENTATION MEASURES

- „ LCRA Creekside Conservation Program
- „ USFWS-Partners for Fish and Wildlife
- „ TSSWCB/SWCD WQMPs developed
- „ City of Pflugerville
- „ Texas AgriLife Extension Service

# TEXAS AGRILIFE EXTENSION SERVICE FERAL HOG EDUCATIONAL EFFORTS

- „ Dan Gaskins, new Extension Agent (Gatesville)
- „ Workshops/trainings/outreach programs
- „ Social media
  - „ Wild Wonderings blog
  - „ iPhone app
  - „ New Youtube videos
  - „ Facebook
  - „ Twitter
  - „ Online feral hog reporting system





# RETROFITTING STORM WATER DETENTION BASINS

- „ Determine the effectiveness of retrofitting existing flood control facilities (storm water detention basins) to also perform as water quality facilities
- „ Partners:
  - „ Center for Research in Water Resources at the University of Texas
  - „ City of Pflugerville

# STORM WATER DETENTION FACILITIES



# IMPLEMENTATION MEASURES

- „ Sampled 2 storm events 2013
- „ Amended QAPP



# EDUCATION AND OUTREACH

- Coordinate with partners to develop a general campaign to raise public awareness of nonpoint-source contributions of bacteria pollution, specifically pet waste

## Partners

- LCRA
- City of Austin
- City of Pflugerville
- City of Round Rock
- Travis County





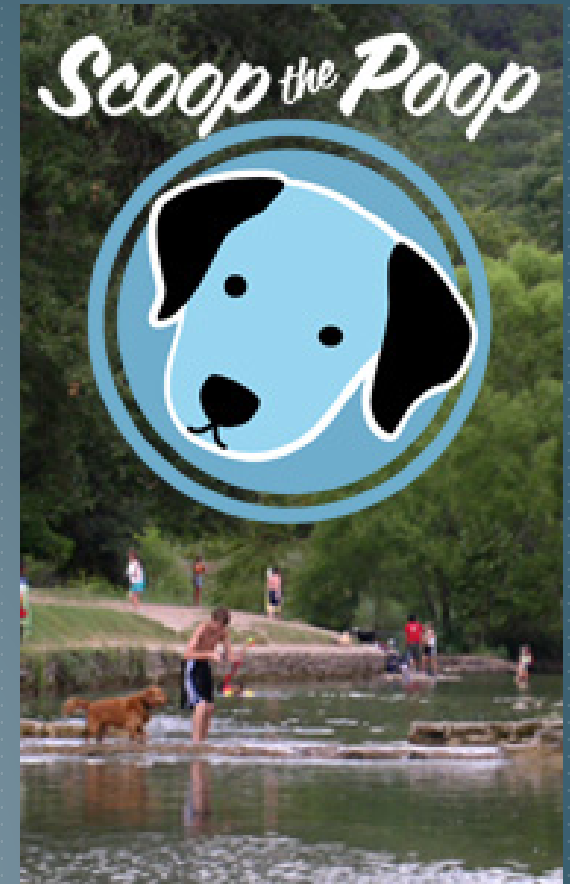
# VOLUNTEER MONITORING



- " LCRA CRWN
- " 7 sites
- " 50 monitoring events
- " 65+ volunteer hours

# PET WASTE IMPLEMENTATION MEASURES

- Education/outreach
- Install additional mutt mitt and waste containers



# PFLUGERVILLE EDUCATION ACTIVITIES

- " Stormwater
- " Water quality
- " Water conservation
- " Pollution prevention





# WATER QUALITY ORDINANCES

- „ Develop and adopt equivalent water quality ordinances between government jurisdictions

- „ Partners:

  - City of Austin

  - City of Pflugerville

  - Travis County

  - City of Round Rock

# WASTEWATER COLLECTION SYSTEMS

- Annual visual inspection of collection systems within 100 feet from the centerline of the Gilleland Creek and its tributaries.

## Partners

City of Austin

City of Pflugerville

Windermere Utility



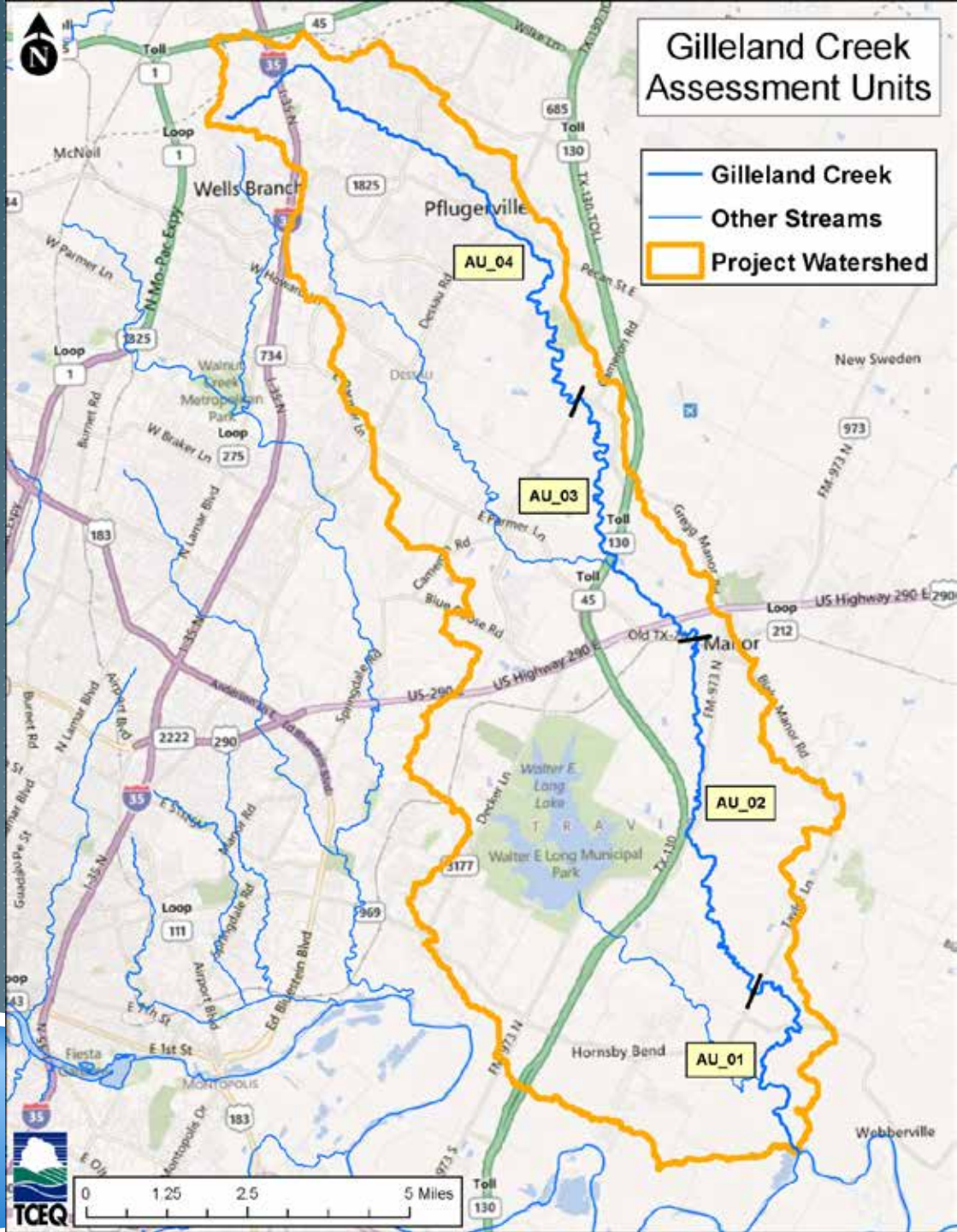


# WASTEWATER MONITORING

- „ Monitor and report *E. coli* concentrations from wastewater treatment facilities
- „ Partners
  - City of Austin
  - City of Pflugerville
  - Windermere Utility

# Gilleland Creek Assessment Units

- Gilleland Creek
- Other Streams
- Project Watershed



0 1.25 2.5 5 Miles

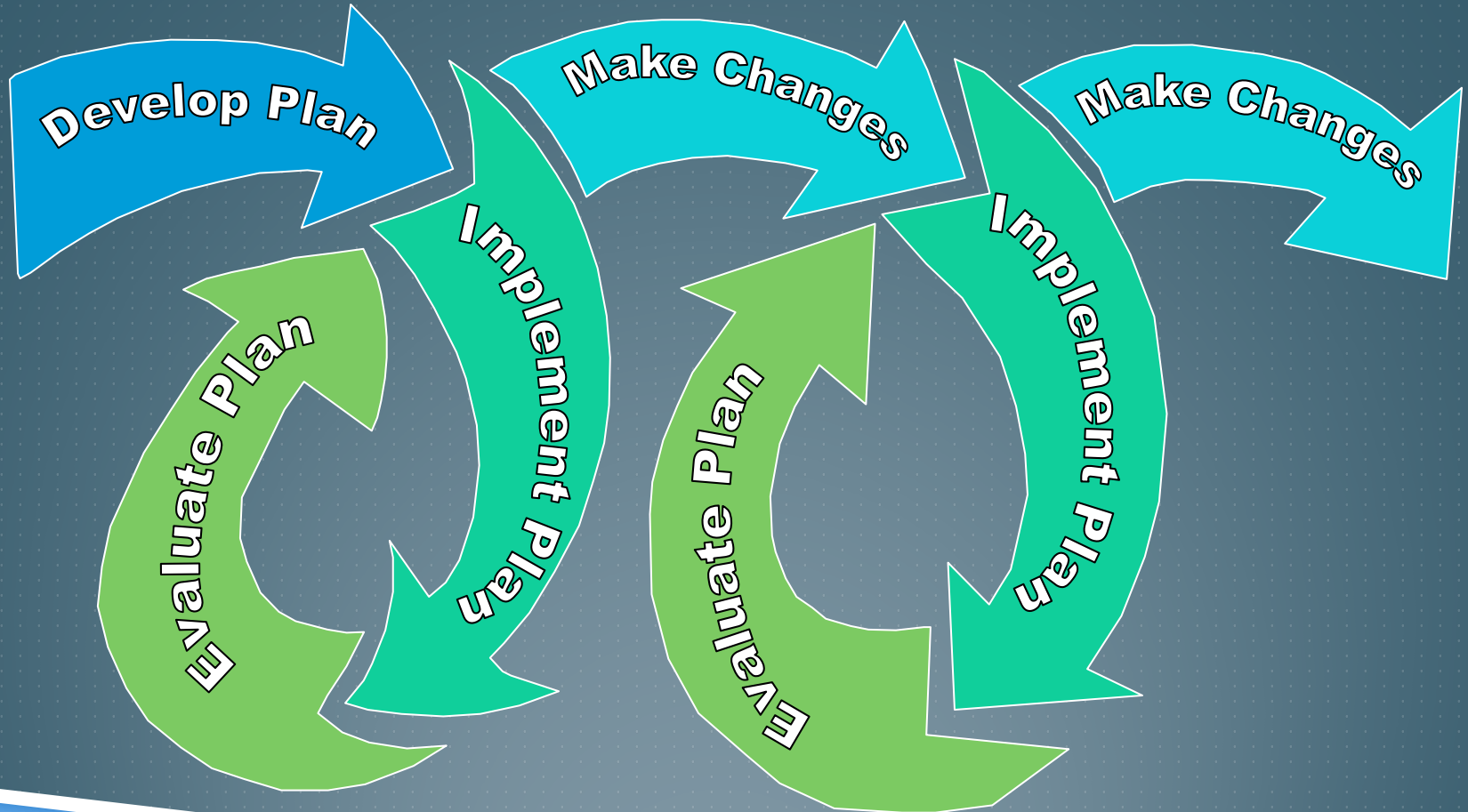
# TEXAS INTEGRATED REPORTS

|          | 2004 | 2006  | 2008   | 2010   | 2012   |
|----------|------|-------|--------|--------|--------|
| 1428C_01 | 240  | 170.0 | 166.35 | 129.37 | 128.82 |
| 1428C_02 | NA   | NA    | 147.32 | 109.43 | 112.25 |
| 1428C_03 | NA   | NA    | 175.55 | 175.55 | 172.58 |
| 1428C_04 | NA   | NA    | 135.20 | 144.72 | 239.84 |

Standard:  
126 cfu/100ml



# WHAT'S NEXT?



# TELLING OUR STORY

- „ Other events, activities, tasks
- „ Hyperlinks to project pages, maps, news stories
- „ PSAs
- „ Press releases
- „ Photos
- „ Graphs, charts



- Cleanups, Remediation
- Emergency Response
- Licensing
- Permits, Registrations
- Preventing Pollution
- Recycling
- Reporting
- Rules

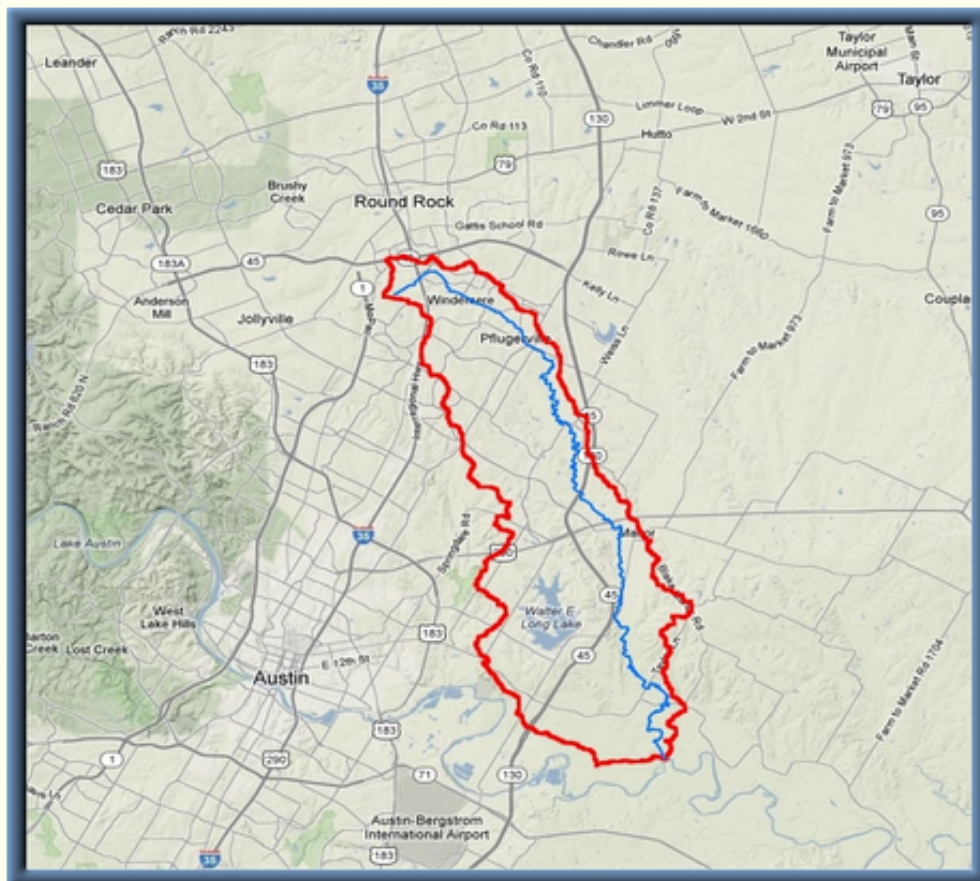
# Gilleland Creek: Implementing a TMDL to Protect Recreational Uses

The goal of this current project is to keep recreation safe in Gilleland Creek by reducing bacteria levels. The adopted TMDL and the approved I-Plan combined are the road map to improving water quality in the creek.

[Back to TMDL Projects](#)

**Watershed County:** Travis  
**Parameter:** Bacteria  
**River Basin:** Colorado  
**Segment:** 1428C


- [Overview](#)  
Water quality and the project for Gilleland Creek
-  [Get Involved](#)
- [Partners](#)
- [Status and Activities](#)
- [Videos, News, Maps, and Photo Galleries](#)
- [Reports and other Documents](#)
- [Adopted TMDL & Approved I-Plan](#)
- [Contact Us](#)



Click map to see monitoring stations, permitted discharges, flood control project sites, and educational initiatives

-  [Data](#)
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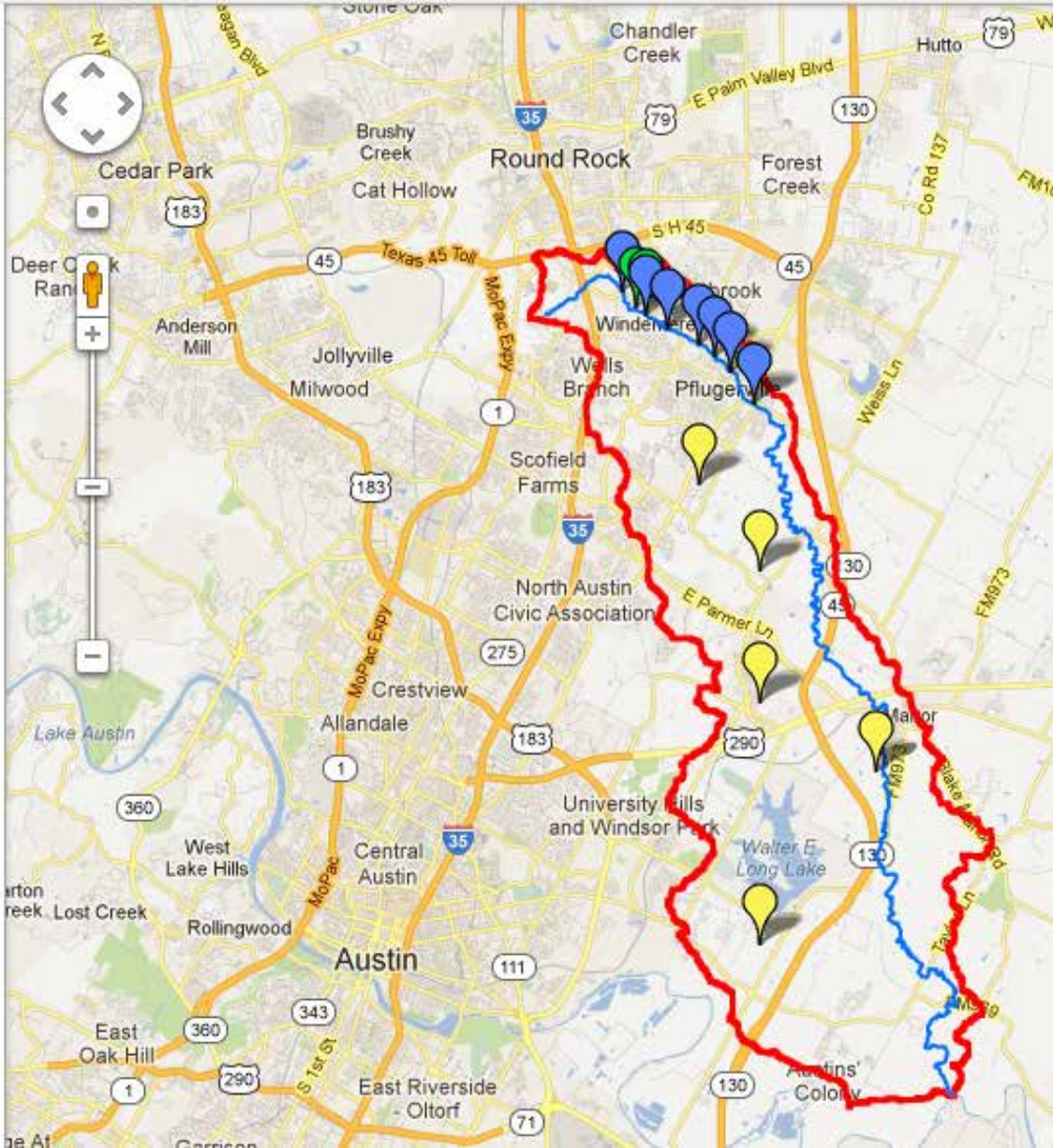
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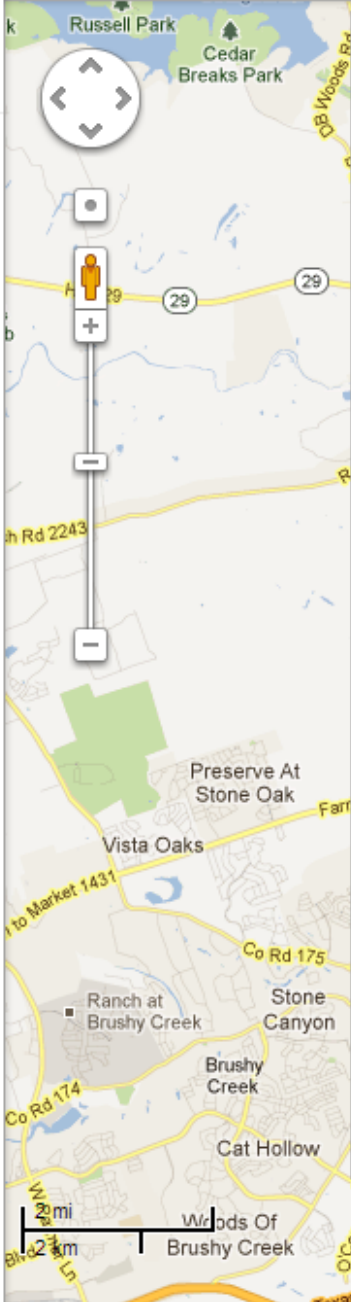
- Contents
- Gilleland Creek
  - Gilleland-AUs
  - Gilleland Creek Watershed
  - Monitoring Stations
  - General Information
  - Retrofitting Flood Control



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      - Features
        - 1428C\_01
        - 1428C\_02
        - 1428C\_03
        - 1428C\_04
    - Gilleland Creek Watershed
      - Features
        - Watershed Outline
    - Monitoring Stations
      - Site 28
        - Site 28  
LCRA CRWN Site 28 Gilleland Creek at Railro
      - Site 363
        - Site 363  
LCRA CRWN Site 363 Gilleland Creek at Picad
      - Site 365
        - Site 365  
LCRA CRWN Site 365 Gilleland Creek below Bo
      - Site 353



## LCRA CRWN Site 363

### Gilleland Creek at Picadilly Lane

LCRA's [Colorado River Watch Network \(CRWN\)](#) is the first and largest regional volunteer network of water quality monitors in Texas. Trained volunteers submit water quality data that is reviewed and analyzed by CRWN staff, creating an early warning system that alerts LCRA to potential water quality threats.



[Project Web Page](#)

[Directions](#) [Search nearby](#) [Save to map](#) [more](#)



# QUESTIONS

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TCEQ TMDL Program

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<http://www.tceq.texas.gov/waterquality/tmdl/nav/69-gillelandcreekbacteria>