

A scenic view of a wetland area with a pond, reeds, and a city skyline in the background. The foreground is dominated by tall green reeds and grasses. In the middle ground, a calm pond reflects the sky and the surrounding greenery. The background shows a dense line of trees and a city skyline with several skyscrapers under a blue sky with scattered white clouds.

# Mason Park Stormwater Treatment Wetland or “Poop Soup”

Presented by Diane Humes  
Texas Stream Team  
Texas Master Naturalist  
9/3/2009



# Tropical Storm Allison

# Brays Bayou - upstream





# 3 Main Goals:

## In Houston:

- Few streams are in their natural condition
- Large rains can occur
- Tides and storm surges influence streams
- Urbanization adds to runoff

- Reduce flooding
- Clean stormwater
- Create wildlife habitat



# Neighborhood



# Construction Plan



# Mason Park Treatment Marsh Partners

- Harris County Flood Control/Project Brays
- Houston Parks and Recreation Department
- Texas Cooperative Extension/Texas Sea Grant
- Texas Parks and Wildlife Department
- Texas Master Naturalists
  - Galveston Bay Area Chapter
  - Gulf Coast Chapter
  - Cradle of Texas Chapter



# Additional Partners

- Texas Stream Team
- Cesar E. Chavez High School
- Stephen F. Austin High School
- NRCS
- US Fish and Wildlife
- US Environmental Protection Agency
- Galveston Bay Estuary Program
- National Oceanic and Atmospheric Administration/Texas Coastal Management Program
- NRG, Inc.

It takes teamwork!



# Wetland Restoration Team

- Marissa Sipocz, Andy Sipocz, Charriss York, Dick Benoit, Carolyn Lovell, Nathan Veatch, Milt Gray, Diane Humes, Rebecca Smith, Holt Smith, Vanessa DiFede, Damien Carey, Breck Sacra, Eddie Seidensticker, Lynne Ray, Vic Madamba, Rindy Howard, Ben Howard, Nate Howard, Rufus Driver, John Thayer, Art Chapman, Bob Patterson, Sarah Patterson, Sara Snell, Tawy Muehe, Richard Connor, Allison Buchtien, Wally Ward, Bill Callahan, Charlotte Wells, Joanna Sharp, Stacy Gross, Lan Shen, Shirley Foster, Judy Schaefer, Liz Gimmler, Doris Heard, Ellen Gerloff, Alan Berger, Gerre Guerrant, Tom Solomon, Susan Severance, Frank Budny

# Construction began 2005



Before planting: This is a big job!



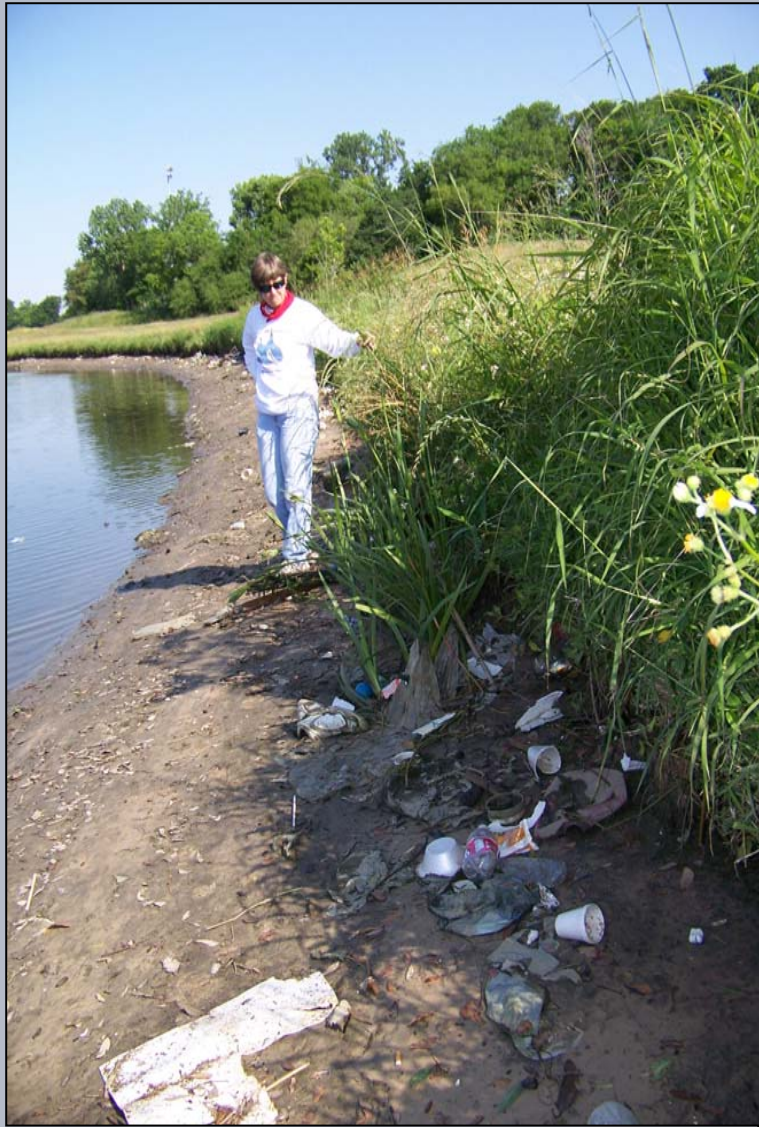
# Plants had to be collected



# 10,000 plants, 3 years



# Issues





# Invasives



# Wildlife



# More wildlife



# Wetland Dedication, October 2006



# Water testing

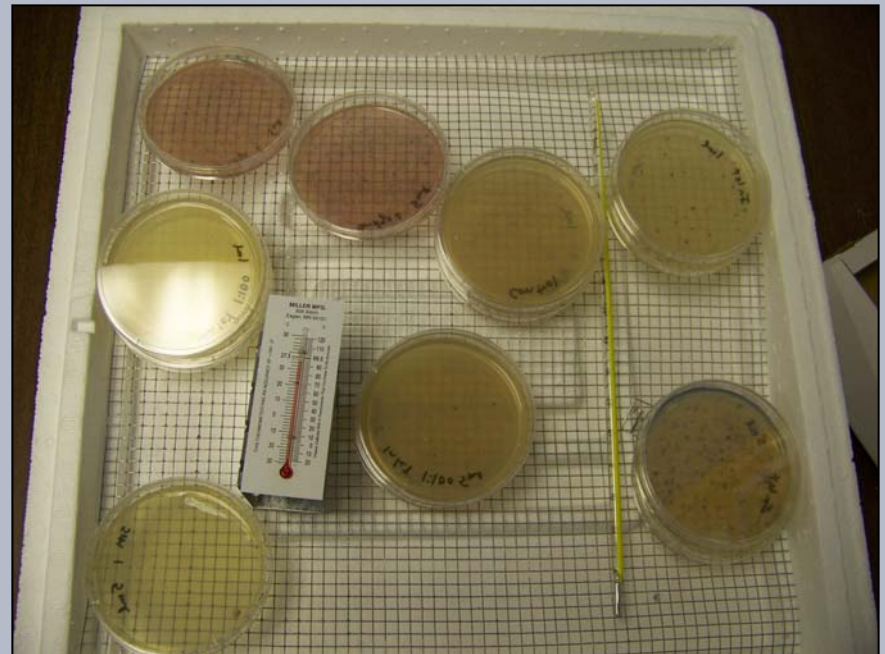


# Stormwater Inlet



# E. Coli testing

- Monthly water and E. coli testing
- 4 sites - Inlet, Shallow Marsh, “Baby Pool” Outlet, Brays Bayou Bridge



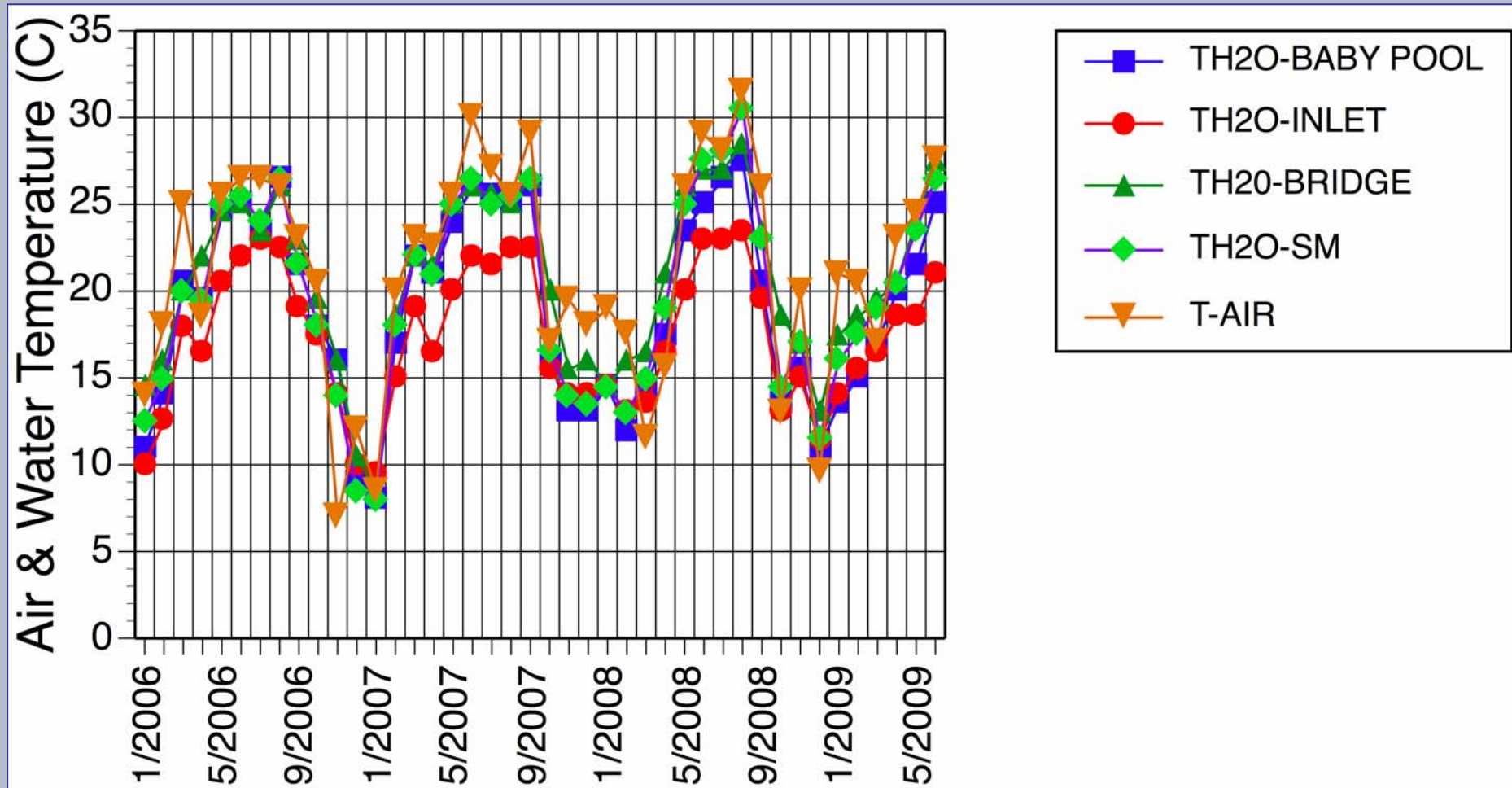
# Treatment works



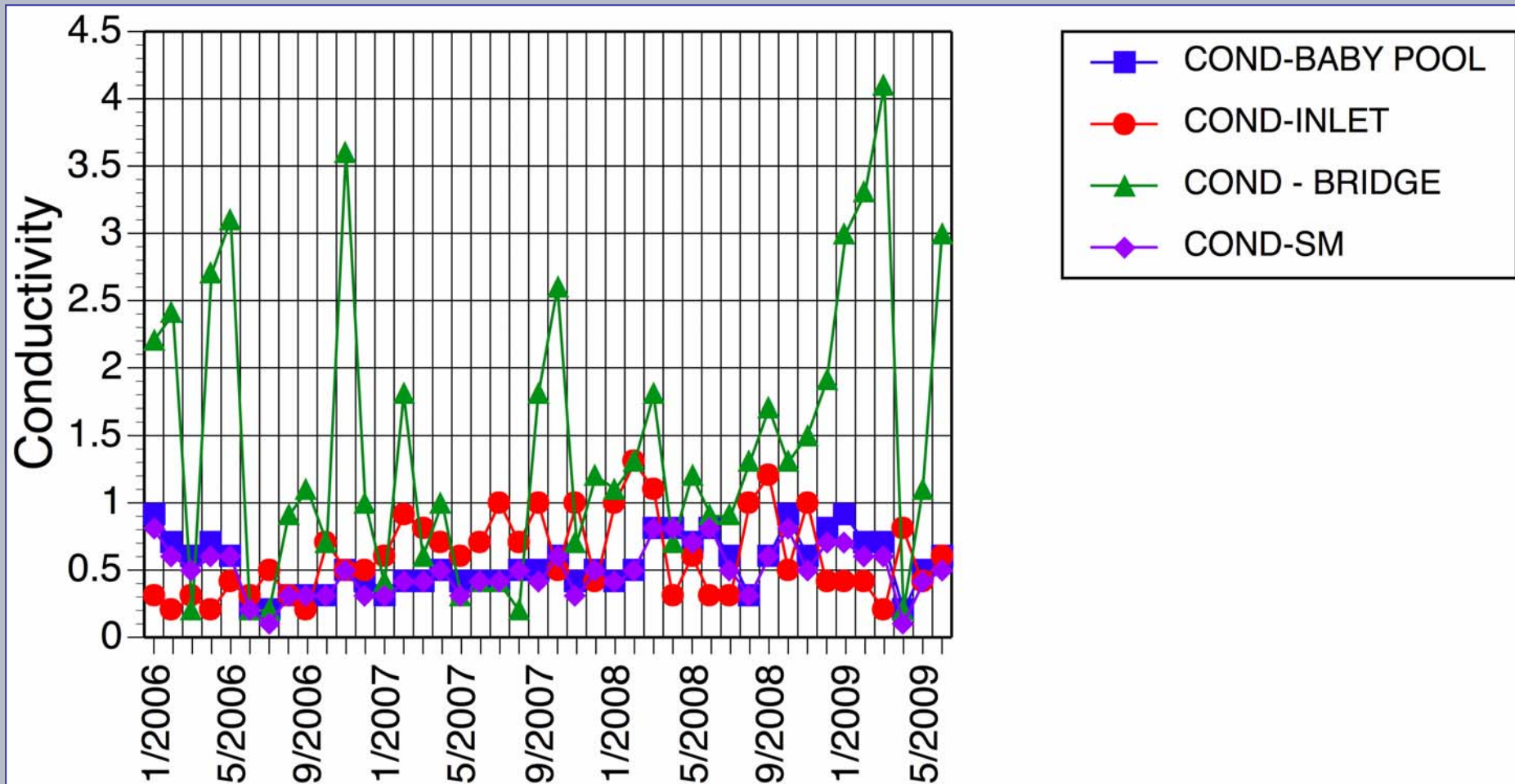
- Stormwater INLET bacterial counts high - 10 - 100X higher than Brays Bayou
- Treatment marsh removes 98-99% of E. coli
- INLET ave 56602 (75-431,250)
- SM ave 862 (0-3740)
- Baby Pool ave 956 (0-3680)
- Bridge ave 6546 (225-120000)
- CFU/ 100 ml water



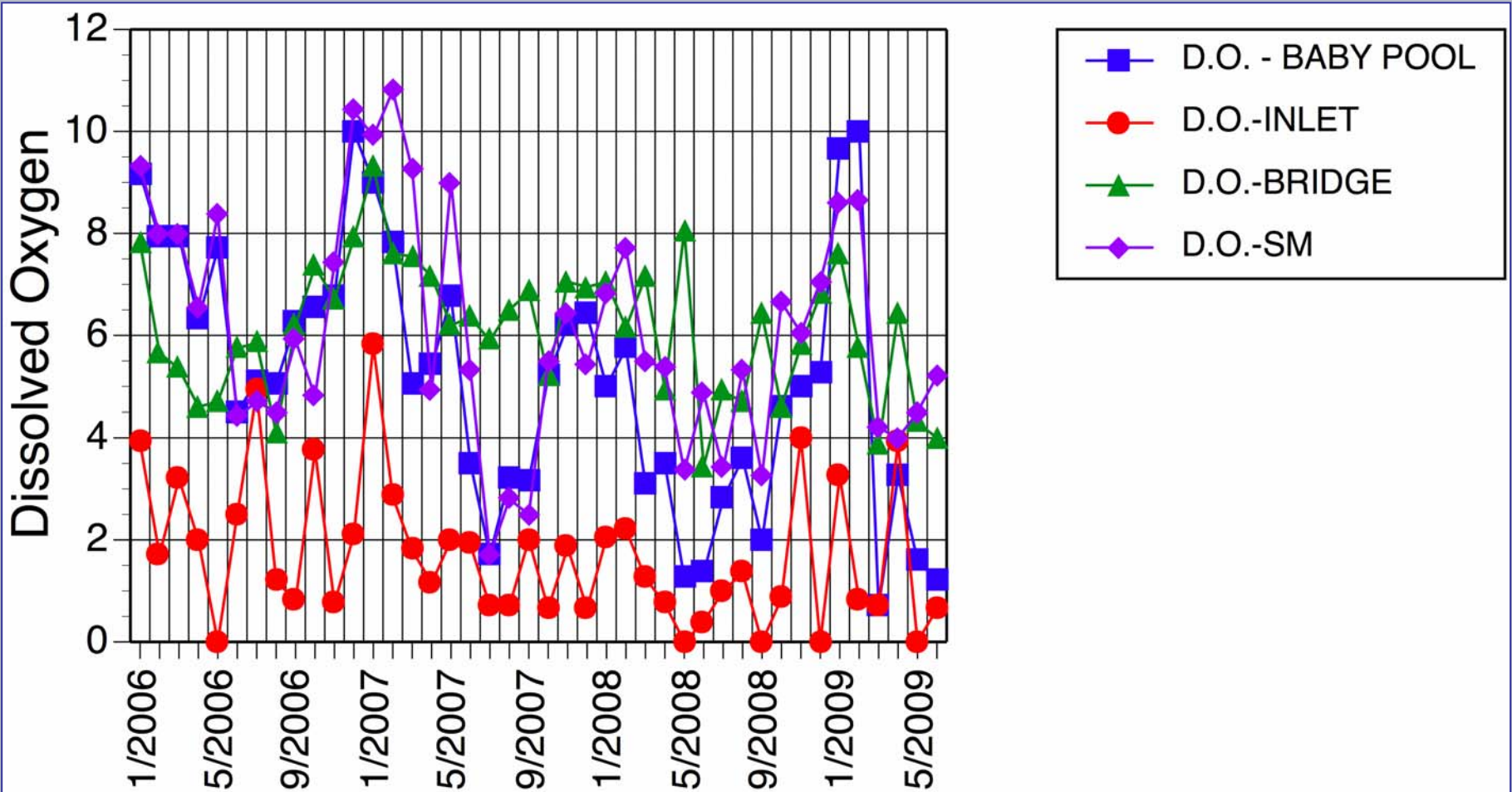
# Air & Water T 2006-present



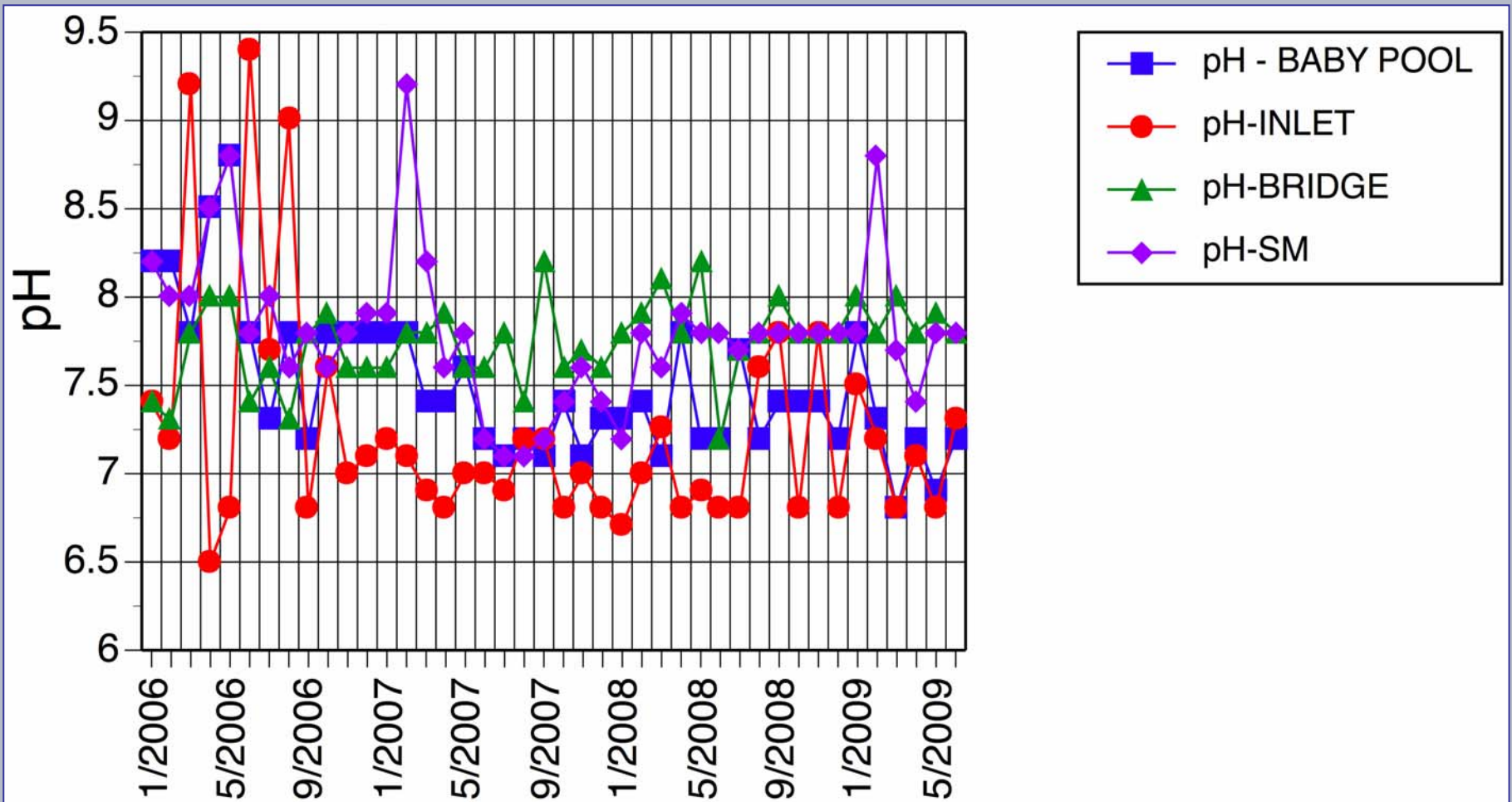
# Conductivity 2006-present



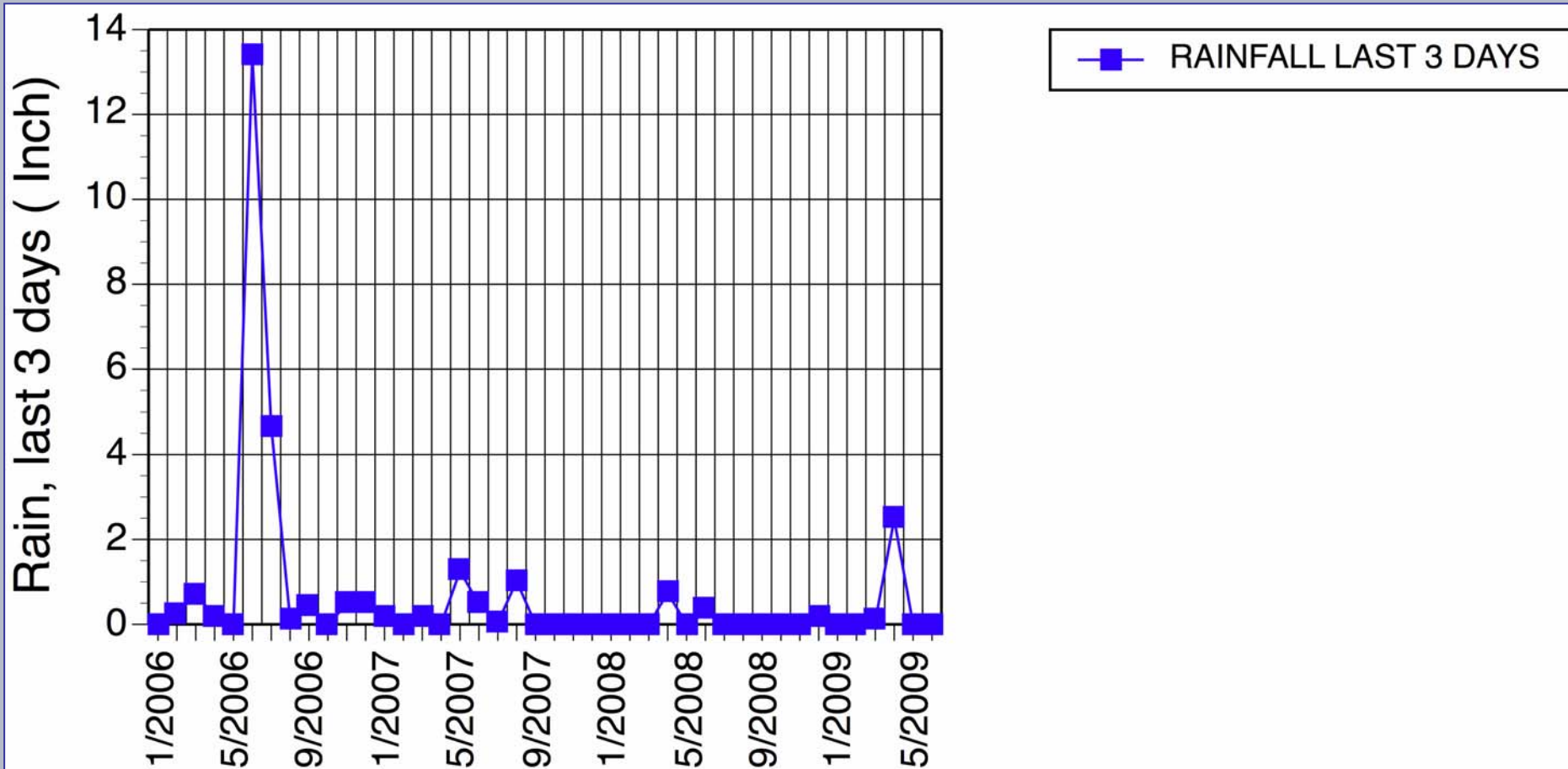
# Dissolved Oxygen 2006-present



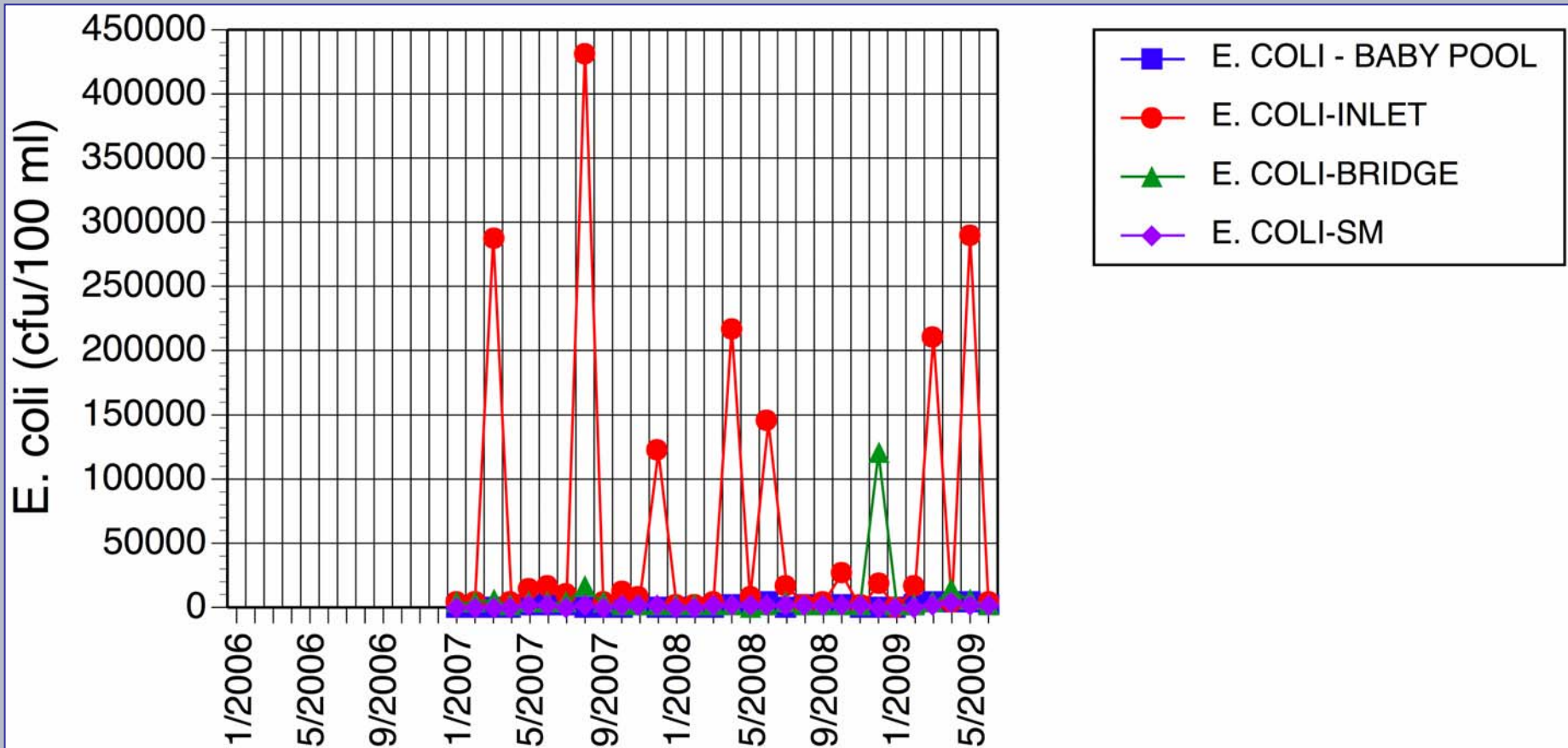
# pH 2006-present



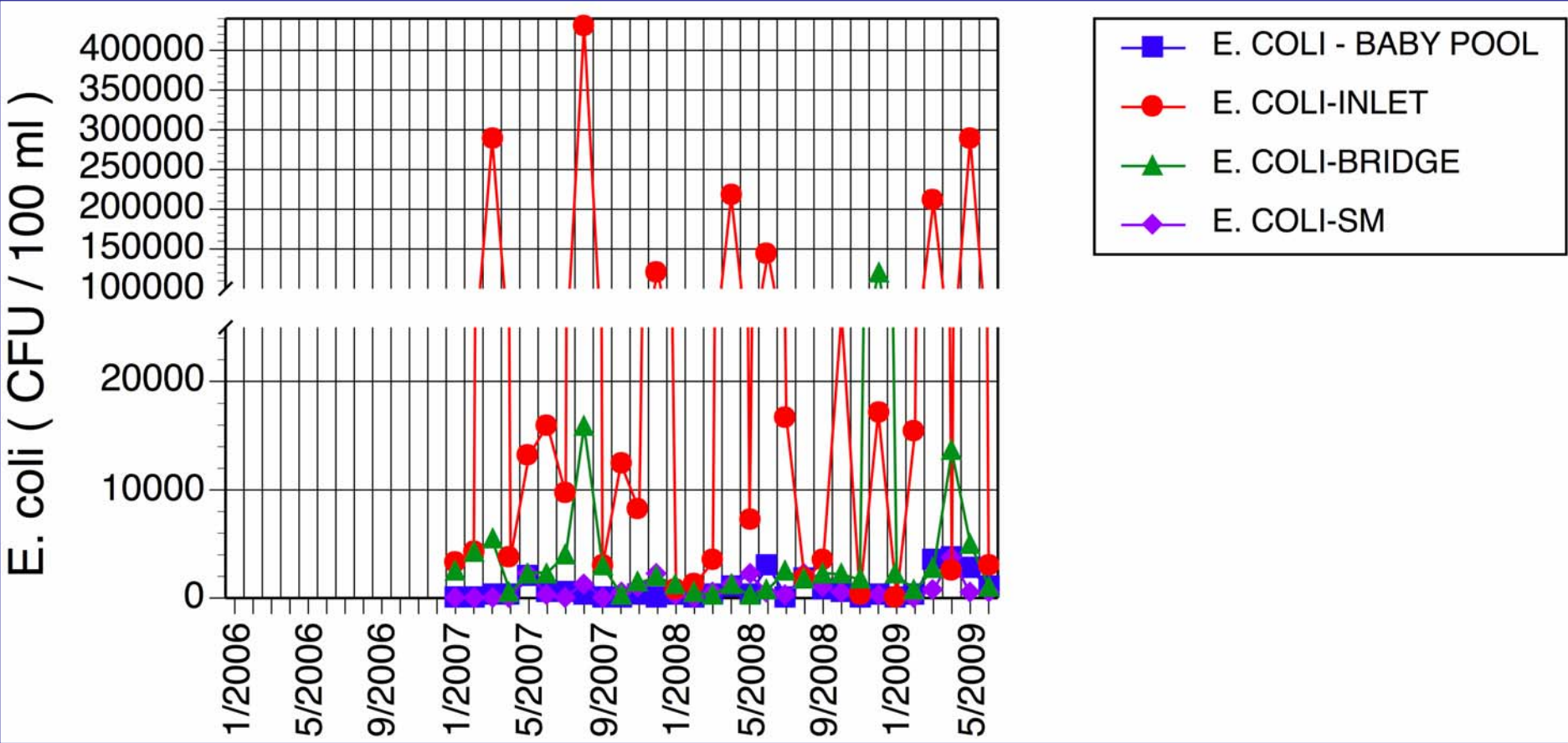
# Rainfall last 3 days



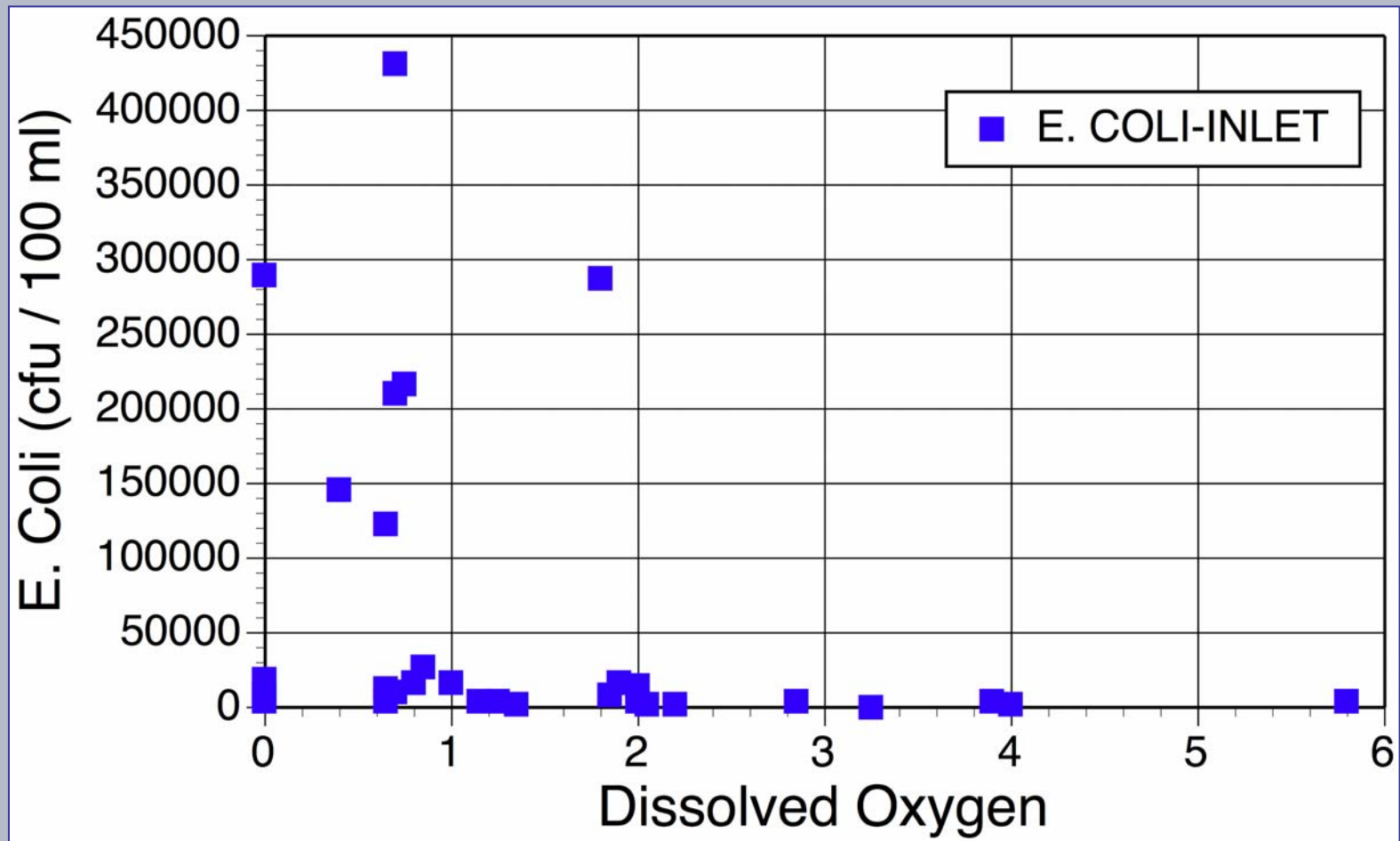
# E. coli



# E. coli - 4 sites

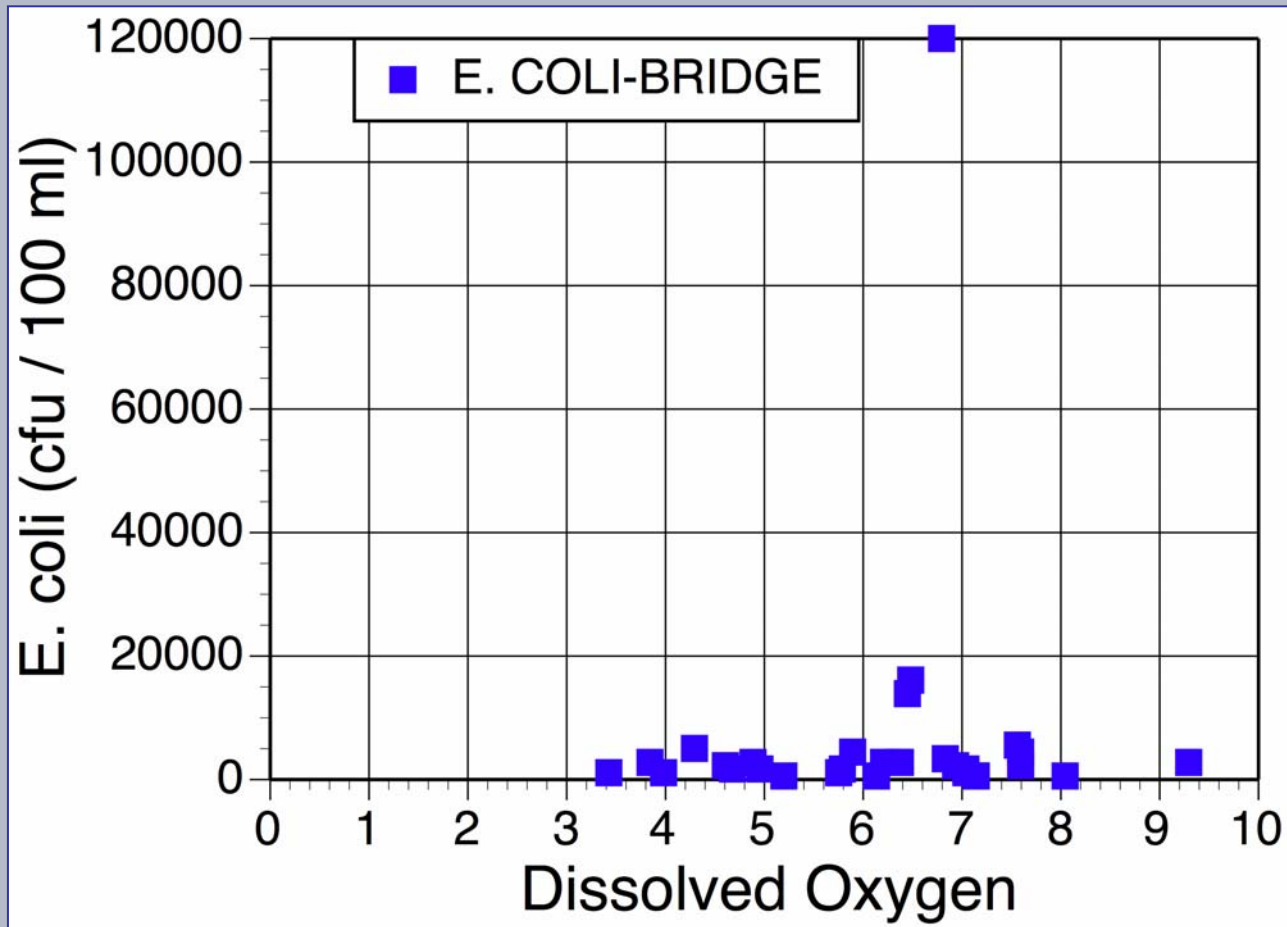


# E. coli (Inlet) vs D.O.





# E. coli (Bridge) vs D.O.



# P.S. Hurricane Ike



# Mason Park Stormwater Treatment Wetland



# Buffalo Bend Park



29°45'18.04" N 95°17'52.60" W

© 2009 Tele Atlas  
elev 9m

Jan 9, 2008

Google

Eye alt 1.47 km

# Just out of curiosity...



Estimate 50,000 cfu/100 ml

50 cfu/100 ml

# Clean water and space for all species

Galveston Bay Area  
Texas Master Naturalist

Texas Stream Team

Wetland Restoration Team  
Prairie Restoration Team



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