BAYOU LIBERTY HOME SEWER INSPECTION PROGRAM

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LPBF

- Created in 1989
- Restoring and preserving water quality and coast.
- Restoration, education, monitoring, advocacy
Background

- Lake Pontchartrain Basin
- 9,500 mi\(^2\) estuarine watershed
- 16 Louisiana parishes
- 630 mi\(^2\) Lake
Background

- 2004 – LPBF published a paper discussing the increase of urbanization on the north shore on water. (Calvin et al. 2004)
- 2004 - 2009 – Population boom in St. Tammany Parish (2.6%/yr vs .98%)
- 2012 – Watershed Implementation Plan (WIP) between LPBF and LDEQ modelling On Site Sewer Facilities (OSSF) Issues.
- 2013 – First project in the Yellow Water River and Ponchatoula Creek Watersheds.
Background

- From 2013-2015 LPBF and Louisiana Department of Health (LDH) sweep Yellow water and Natalbany River watershed.
- 134 Aerated Treatment Units (ATUs) repaired
- Approximately 67,000 gallons per day (GPD) of wastewater improvement.
- Yellow Water, Ponchatoula Creek/River, and Natalbany delisted for secondary contact.
Problem

- 2016 - Bayou Liberty impaired for D.O. and Nutrients
- LDEQ lists On-Site Sewer Facilities (OSSF) as culprit
- St. Tammany Parish and LPBF apply for Region 6 funds.
Solution

• Plan new inspection program

• >800 Homes.

• >300,000 GPD of wastewater 50% of which is undertreated.

• Intensive Home inspection program.

• Monthly Monitoring (lab and in situ)
Home Inspections

- Meetings with St. Tammany developing protocol
- Included knowledge learned from previous program in Tangipahoa
- Problems initially reaching out to homeowners.
- Made use of LPBF Educational materials
Home Inspections

• Door To Door Inspections
  • Training
    • Class IV operator
  • Education
    • What a system is
    • Where the important parts are
• Inspections
  • What’s wrong
  • How they can fix it
Methodology

• Monthly Monitoring:
  • In Situ
    • pH
    • DO
  • Temperature
  • Conductance
Methodology

• Laboratory Testing
  • BOD
  • Ammonia
  • Phosphorus
  • Fecal
GIS

- 826 Homes Inspected
- 582 Re-Inspections
- 1408 Total Inspections
- 48.8% Initial Failure Rate
- 82 Septic Systems
- 26 CDBG Grant Applications
Home Inspection Results Over Time

- Initial: 335.0
- Initial + ROS: 301.0
- Reinspect 1: 140.0
- Reinspect 2: 74.0
- Reinspect 3: 30.0
- Reinspect 4: 17.0

Legend:
- NA
- Vacant
- Pass
- Septic
- Fail
Discussion

• This project supplements point source pollution tracking and reduction programs
• Goal was water quality not punishment
• Plan to monitor the area through December
• Plan on follow-up interviews with homeowners to inform further projects.
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