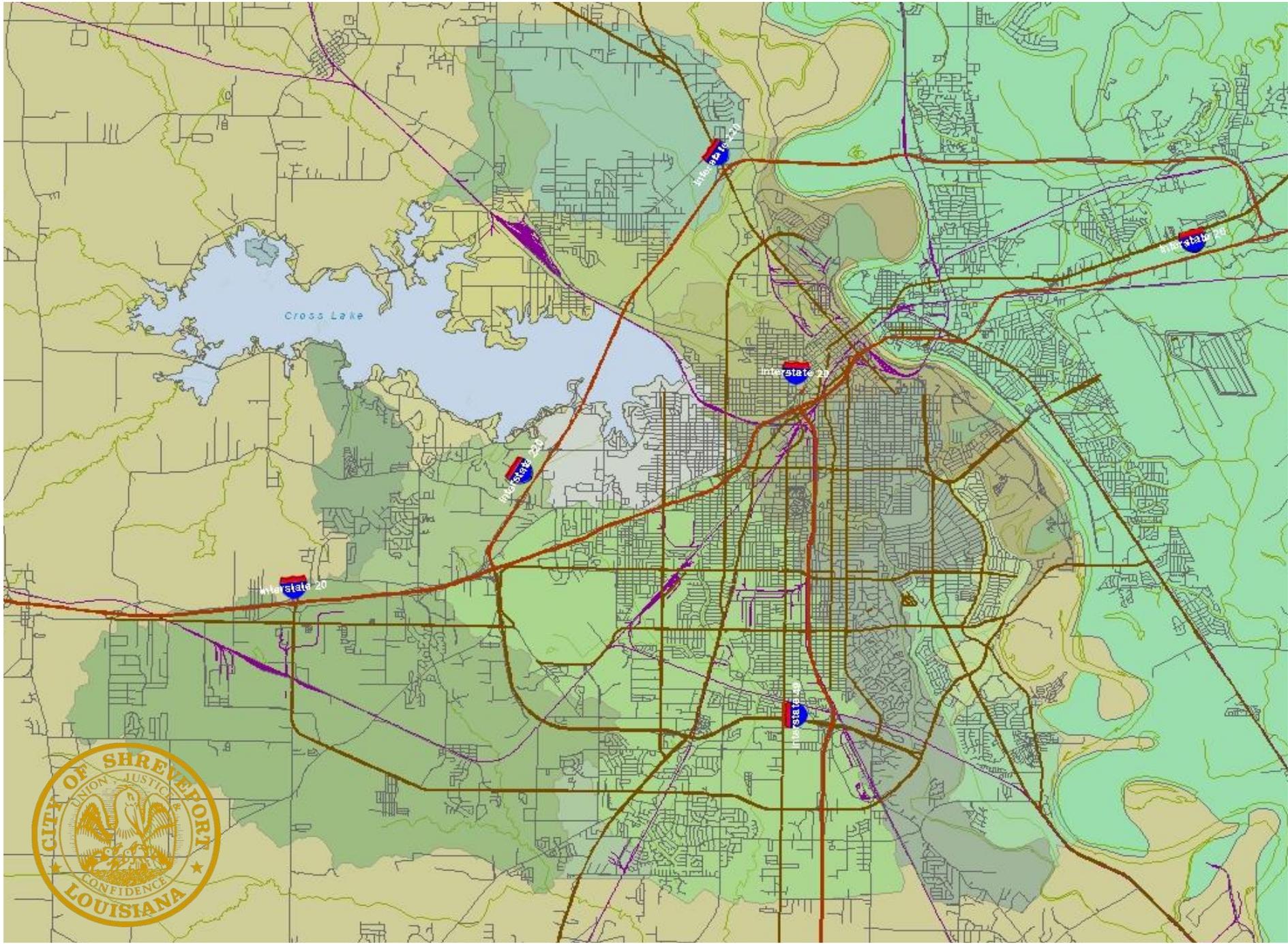


CROSS LAKE WATERSHED MANAGEMENT PROGRAM

Shreveport (Cross Lake in background)





Cross Lake

- Drinking Water Supply Source for Shreveport, BAFB, and surrounding communities
- Major recreational and ecological resource for NW Louisiana



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Lake/Watershed Facts

- Lake is shallow, getting shallower
- 13 square miles
- Watershed is 256 square miles
- Relatively little industrial point source pollution
 - Most of the watershed is located outside of the City limits

Cross Lake Watershed Management Program

- Began in late 1990s
- Citizens Advisory Committee
- Management Plan

Components of Plan

- Lake/Watershed Characterization
- Public Awareness/Education
- Implementation

Lake/Watershed Characterization

- Bathymetric Map
 - <http://la.water.usgs.gov/pdfs/crosslake.pdf>
- Limnological Study
- Pollutant Loading Study
- Land Use

Lake/Watershed Characterization

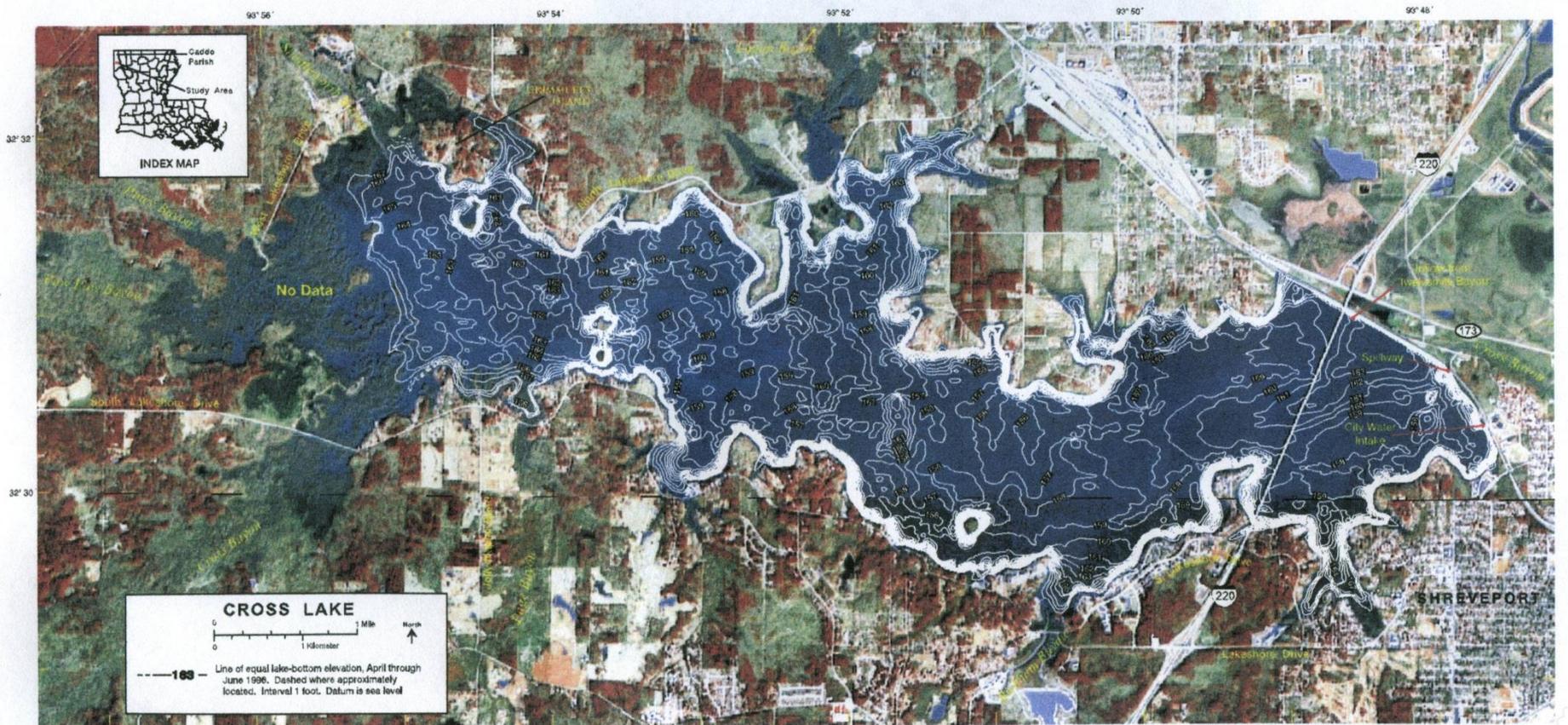


Figure 1. Bathymetry of Cross Lake, Caddo Parish, Louisiana, April through June 1996.

Map provided by USGS

Lake/Watershed Characterization: Issues

- Sedimentation
- Nutrients
- Bacteria
- Threat of pollution from spills
- Latest concern-non-native aquatic weed growth

Lake/Watershed Characterization: Issues - Sedimentation





Lake/Watershed Characterization: Issues - Nutrients



Lake/Watershed Characterization: Issues - Bacteria

- Sewage overflows
- Malfunctioning septic systems

Lake/Watershed Characterization: Issues – Threat of Spills

- Highways, streets (I-220)
- Railyard
- Industrial activity
- Oil & Gas well activity



Lake/Watershed Characterization: Issues – Non-native Aquatic Weeds

- Hydrilla
- Water Hyacinth
- Giant Salvinia



Salvinia



Salvinia on Lake Bistineau



Public Awareness Projects

- Developed interactive CD on the watershed, distributed to all schools
- Newsletters

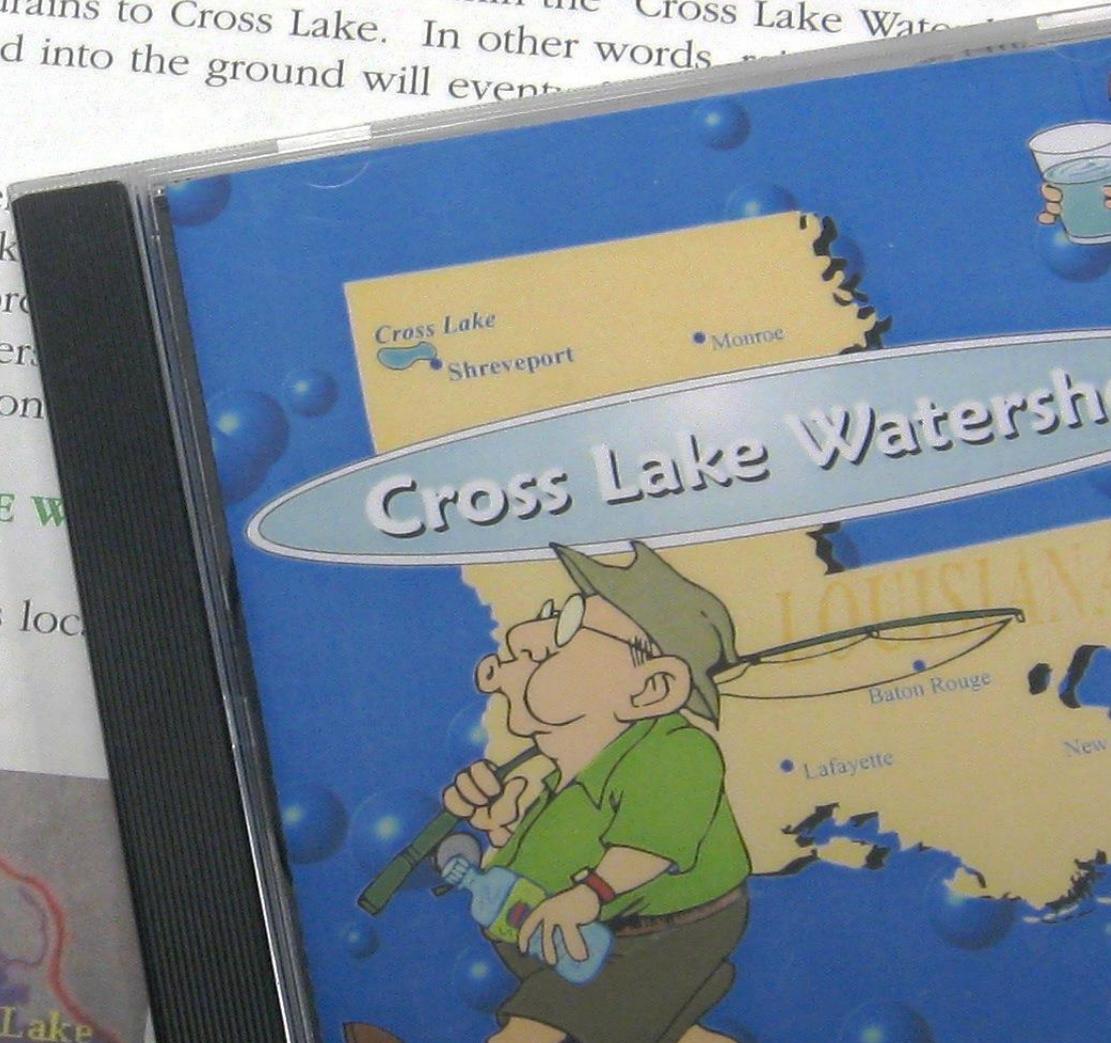
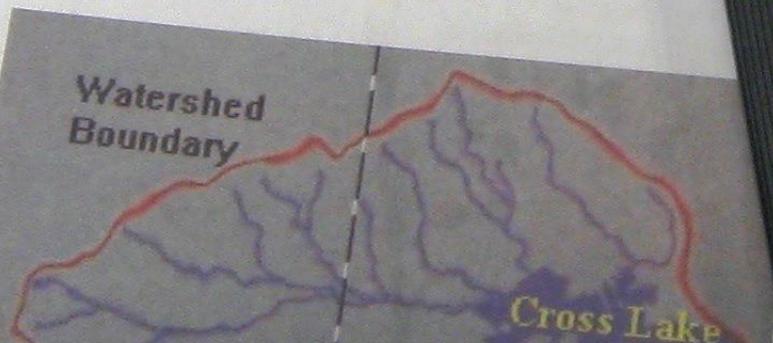
WHAT IS THE "CROSS LAKE WATERSHED," AND WHY IS IT IMPORTANT?

You are receiving this because your address is within the "Cross Lake Watershed." This is the area of land which drains to Cross Lake. In other words, rain that falls at your address and is not absorbed into the ground will eventually flow into Cross Lake.

For this reason, what happens to the water that falls in the watershed is important. Furthermore, because the lake is used for drinking water in Shreveport, Barksdale Air Force Base, and other areas, what happens throughout the watershed is important to nearly a quarter of a million people.

WHERE IS THE CROSS LAKE WATERSHED?

Two-thirds of the watershed is located in Harrison County, Texas.



This is because... and that dr... ant from... partme...

Public Awareness Projects

- School projects
- Host all Caddo Parish 5th graders annually
- Established interactive kiosk at Sci-Port

Implementation of Plan

- Act 145 of 1990, regular session of Louisiana Legislature

Implementation of Plan: Regulatory Actions

- Comprehensive Watershed Protection Ordinance adopted in 2002
 - Adopted pursuant to City's statutory authority
 - Strengthened and clarified City's regulatory authority

Ordinances

- Section 78-344 created new comprehensive watershed protection ordinance
 - Included requirement for land-altering activity permits
- Section 94-191, et seq. established regulations pertaining to private individual sewage treatment systems

Implementation of Plan: Monitoring/Enforcement/Projects

- Monitor tributaries
- Inspect septic systems, USTs, industries
- Oversees vegetation management program
- Review/approve erosion control plans

Help From Others!

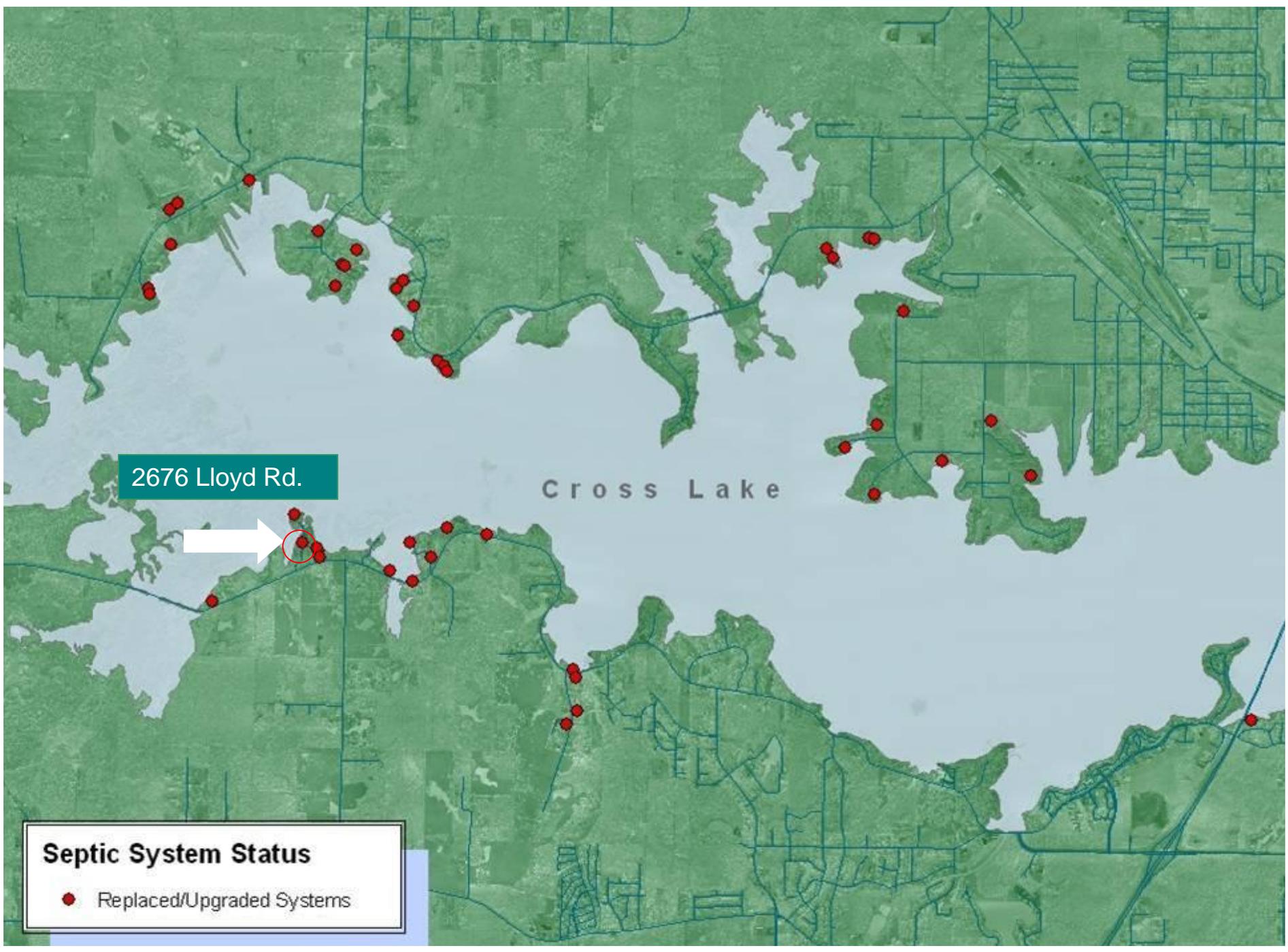
- Shreveport Green's Inland Waterway Cleanup Programs



Residential Sewage Treatment Plant Project

- Received a grant to help improve failing septic systems around the lake





2676 Lloyd Rd.

Cross Lake

Septic System Status

- Replaced/Upgraded Systems

2676 Lloyd Rd.

Before Upgrade:



Location of bleed out from old septic tank.

Attribute Name	Value
Date visited	9/11/2006
Time visited	11:16:32 am
Inspector	B J - J M
Address	2676 loyds rd
Type of system	Septic tank
Brand of system	Other
Other	Jack Daniel Club
Last pumpout (yr)	0
Age of system (yrs)	35
Garbage disposal	no
Maintenance contract	no
Effluent Quality	0
Odor	no odor
Effluent Notes	none
Mech Plant inspect:	
Aerator	n/a
Sprinklers	n/a
Filter	n/a
Timer	n/a
Tank	n/a
Other observations	none
Septic Tank inspect	
Leaching / Bleedout	yes
Caving	no
Excessive/irreg veg	no
Odor	no
Other observations	direct discharge to lake
Inspection Grade	fail

Summary	Attributes	68% Precisions
Positions:		1
Std Deviation:		?
Filename:	2676 Loyd.ssf	
Status...	New	
Offset...	<None>	

GPS Field Inspection Record

2676 Lloyd Rd.



The failing septic system was also discharging directly into Cross Lake.

2676 Lloyd Rd.

After Upgrade:



Upgraded system to a mechanical plant and removed direct discharge line to Cross Lake.

BORDELON SEPTIC SYSTEMS, INC.
11850 MANSFIELD ROAD
KEITHVILLE, LA 71047
318-925-0925

MARCH 28, 2007

JOHN HONEYCUTT
2676 LLOYD
SHREVEPORT, LA

INSTALL 500GPD CAJUN AIRE WITH PUMP, AERATOR AND 3 SPRINKLERS. PUMP AND AERATOR HAVE A 2 YR LIMITED WARRANTY, SPRINKLERS HAVE A 1 YR LIMITED WARRANTY. PUMP OUT EXISTING SEPTIC TANK AND TIE INTO TO BE USED AS PRE-TREATMENT. EXTRA DIRT TO BE HAULED OFF.

TOTAL \$4125.00

Quote generated by installer for upgrade totaling \$4,125.00



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