

# Ville Platte, City of

## **LDHH-DWRLF Water /Energy Efficiency Case for ARRA Green Project Reserve Drinking Water Line Replacement Project**

### Project Description

The current water distribution system for the City of Ville Platte is approximately thirty (30) years past its life expectancy and is losing approximately 67% of the water pumped due to leaks. By reducing the leaks, the water system will be able to reduce the amount of water produced, saving water as well as the energy costs associated with pumping less water. Also the risks to the customers will be reduced by maintaining the appropriate pressures in the waterlines in all areas of the distribution system. Customers include not only the City of Ville Platte which serves 9,310 people, but other purchase water systems: East Side Water System (PWSID 1039003) which serves 3,600 people, Point Blue Water System, Inc (PWSID 1039006) which serves 2,680 people, and Te Mamou Water District (PWSID 1039009) which serves 2,202 people.

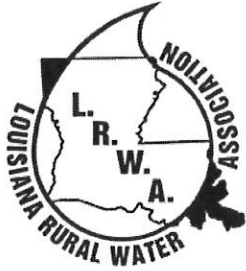
The extent of the water leak problem can be seen in the attached Emergency Leak Study conducted by Louisiana Rural Water Association in 2008. The region 4 office of LDHH has identified this system as it's worst by far and has noted the problem on the most recent sanitary survey and the Notice of Violation letter. See attached copy of an email from Amanda Laughlin, Region 4 Engineer with LDHH regarding the City of Ville Plate water system.

The proposed project consists of looping lines, replacing inadequately sized lines, adding valves, adding fire hydrants, cleaning and painting water towers, and replacing many of the failing steel, cast iron, and asbestos concrete water lines located throughout the city with new PVC lines.

The estimated cost of the project is listed below:

Construction Costs:	\$9,500,000
Land Acquisition:	\$150,000*
Engineering:	\$1,200,000
Legal Fees:	\$200,000
Contingencies:	\$950,000
<b>Total Project Cost:</b>	<b>\$12,000,000*</b>

\*Note some costs may not be eligible under the ARRA program; however, regular funds will be mixed in the total. Also, the City may not make a single loan, but split the project into multiple loans/contracts in order to ensure the February deadline for ARRA awarded contracts is met.



## *Louisiana Rural Water Association*

PO Box 180 ♦ Kinder, LA 70648

Toll Free: (800) 256-2591 ♦ Phone: (337) 738-2896 ♦ Fax: (337) 738-5620

E-Mail: [LaRWA@centurytel.net](mailto:LaRWA@centurytel.net) ♦ Web-site: [www.lrwa.org](http://www.lrwa.org)

Patrick Credeur, Executive Director

*"To provide our water and wastewater utility members with the highest quality of leadership, representation, and support services."*

### **LRWA Leak Survey performed on the City of Ville Platte**

The City of Ville Platte, located in Evangeline Parish serves about 8,500 people through 3220 connections. The Water System has 5 water wells and 3 storage tanks with a capacity of approximately 900,000 gallons.

On June 2, 2008, LRWA Water Circuit Rider, Mike Gonzales, and Energy Conservation Technician, Susan Robbins, arrived at the system to perform an emergency leak survey. After discussing the problem with the operator and system personnel, it was determined that the immediate problem was the loss of well #8. With well #6 being out of service since February 2008, and the loss of well #8 two weeks before, the system was unable to pump the necessary amount of water to supply the system. However, with an emergency connection with Eastside Water System, pressure and pumping levels are sustained at this time. Eastside Water System is supplying Ville Platte with approximately 300,000 gpd.

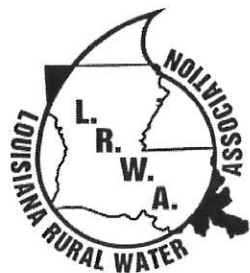
Pumping records show that the water system pumps approximately 74,148,450 gallons per month, with sales totaling 24,707,500 gallons per month. This equals a water loss of 49,440,950 (67%) gallons per month or 1.65 million gallons per day. Due to the large amount of unaccounted for water, LRWA staff proceeded with the leak survey.

During a three (3) day period, LRWA personnel concentrated on the older parts of the water distribution system and located/detected 90 leaks in 81 locations. It is estimated that the leaks ranged in degree from 2 gpm to 60 gpm. Most of the large leaks are sub-surface leaks that are flowing directly into the storm sewers. **This system has one of the worse water losses in the state.**

LRWA found the Ville Platte water distribution system in dire need of repairs and replacement. In the Ville Platte Water System most of the piping is either cast iron or galvanized pipe. The galvanized pipe was installed in the 1940's – 1950's, some even earlier. The life expectancy of galvanized pipe is only 40-45 years. City repair crews are getting further behind on repairs because of the frequency of leaks, with some leaks being only feet apart and under concrete or asphalt roadways.

It is recommended:

- ♦ That wells #6 and #8 be repaired sampled and placed in service.
- ♦ That immediate steps be taken to secure funding to replace all galvanized piping, including budgetary funding for some in-house replacement and equipment.
- ♦ That a preventive maintenance program be established and put in place.
- ♦ That meters be installed on wastewater treatment plant, to accurately monitor flows to the facility.



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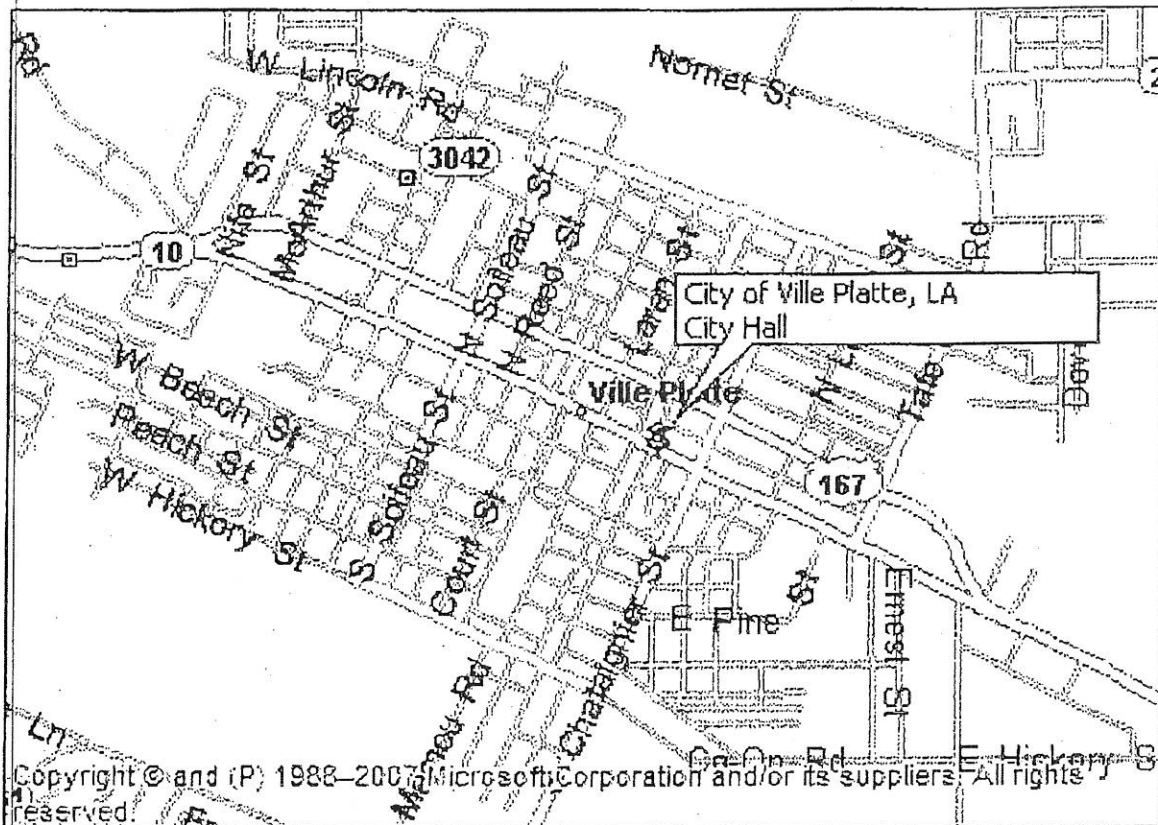
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Note: As of June 18, 2008 Wells #6 & #8 have been repaired and are back in service. In addition, Ville Platte is no longer receiving water from Eastside Water System.

With repairs, upgrades and replacements to the City of Ville Platte water distribution system, the city could see a savings of 55,382 KWH's (35%) in energy and treatment cost, along with the wear and tear on pumps and motors.



# City of Ville Platte, LA

## Emergency Leak Survey

June 2008

**RECEIVED**

JUN 25 2008

ACADIAN REGIONAL OFFICE  
LAFAYETTE, LA

Louisiana Rural Water Association  
P.O. Box 180  
Kinder, LA 70648  
1-800-256-2591



# Louisiana Rural Water Association

## Rural Water Energy Program

### System Evaluation Form

DEQ Office of Secretary -- CFMS # 641803

Field Technician's Name: Susan Robbins

Field Tec #: 5

Action Code: ELS

Emergency (yes/no): No

Dates Visited: 6/2-5/08

Total Hours at System: 32

System Name: City of Ville Platte

Mailing Address:

City: Ville Platte

State: LA

Zip: 70586-

Parish: Evangeline

Phone: (337) 363-3763

Contact Person Name: Cliff Fontenot or Schmelling Thomas

Total System Population: 8500

Does System Have Master Meters (yes/no)? Yes

Are Customers Metered (yes/no)? Yes

Number of Meters: 3,220.00

Number of Meters Tested: 0.00

Percent of Total Meters Tested: 0.00

Average Percent of Loss to System Through Meters Tested: 0.00

Overall Loss to System Because of Meters: 0.00

Million Gallons per Month Pumped Normally 74,148,450

Million Gallons per Month Pumped after Rain: 0

Million Gallons per Month Sold: 24,707,500

Percent of Water Loss : 67.00

Amount of Water Loss : 49,440,950.0

Average Energy Cost per Month: \$16,451.75

Approximate Cost per 1000 Gallons: \$0.22

Total KWH per Month: 157,446.00

Total KWH per Month Water Loss : 105,489.00

Total BTU per Month: 537,678,050.

Total BTU per Month Water Loss : 360,244,250.

How Many Gallons per Month Saved: 25,956,498.0

Total KWH Saved: 55,382.00

Total BTU Saved: 189,128,220.

How many Leaks            located: 90.00  
How many Leaks            need repairs: 90.00  
Amount of Infiltration stopped: 0.00  
Flow Meter: Yes  
Number of Motors: 5  
Total Horsepower: 385  
Total Run Time: 22  
Total GPM: 1872  
Total Motor Amps: 0

**Comments:**

The savings are only an estimate, real saving will not be known until upgrades/repairs are completed. Energy savings calculations are based on 75% of the system surveyed.

**The Following Statements Describe the Systems Problems Accomplishments, Money Saved, Etc. :**

The City of Ville Platte, located in Evangeline Parish serves about 8,500 people through 3220 connections. The Water System has 5 water wells and 3 storage tanks with a capacity of approximately 900,000 gallons.

The Operator, Cliff Fontenot, contacted Louisiana Rural Water Association (LRWA) needing help finding a large leak on the system, stating that the three storage tanks on the system were having trouble filling. Two weeks prior to contacting LRWA the City of Ville Platte had issued a boil advisory due to low pressure.

On June 2, 2008, LRWA Water Circuit Rider Mike Gonzales and Energy Conservation Tech Susan Robbins arrived at the system to perform an emergency leak survey. After discussing the problem with the operator and system personnel, it was determined that the immediate problem was the loss of well #8. With well #8 being out of service since February 2008 and the loss of well #8 two weeks before, the system was unable to pump the necessary amount of water to supply the system. However, with an emergency connection with Eastside Water System, pressure and pumping levels are sustained at this time. Eastside Water System is supplying Ville Platte with approximately 300,000 gpd.

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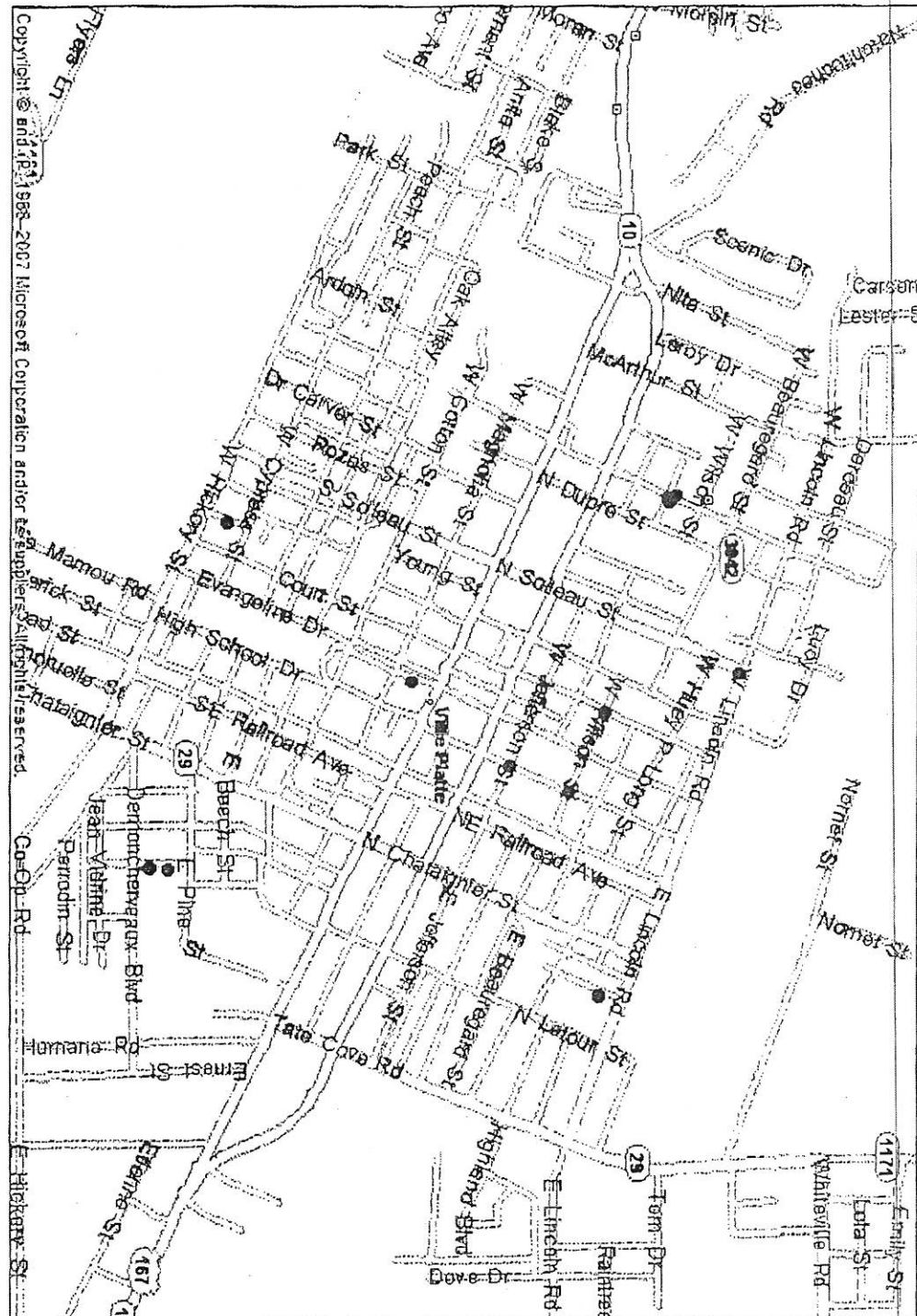
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Note: As of June 18, 2008 Wells #6 & #8 have been repaired and are back in service. Also Ville Platte is no longer receiving water from Eastside Water System.

**Describe the Long Term Benefits to the System as Resulted In Technical Assistance Visit.**

With repairs, upgrades and replacements to the City of Ville Platte water distribution system, the city could see a savings of 55,382 KWH's (35%) in energy and treatment cost, along with the wear and tear on pumps and motors.





## City of Ville Platte

Leak Survey – June 2008

- Leaks needing immediate attention