

# BATON ROUGE SSO PROGRAM PROGRESS REPORT

JUNE 2009



*Prepared for*  
City of Baton Rouge/  
East Baton Rouge Parish  
Department of Public Works

*Prepared by*  
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*In association with*  
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# PROGRAM MANAGEMENT

The Baton Rouge Sanitary Sewer Overflow (SSO) Control and Wastewater Facilities Program was established by the City of Baton Rouge/East Baton Rouge Parish (C-P) to:

- Rehabilitate the sewer collection system
- Increase the hydraulic capacity of the collection system
- Reduce excess wet weather flows that cause SSOs
- Accommodate future growth
- Comply with National Pollutant Discharge Elimination System permits
- Comply with the terms of the Consent Decree.

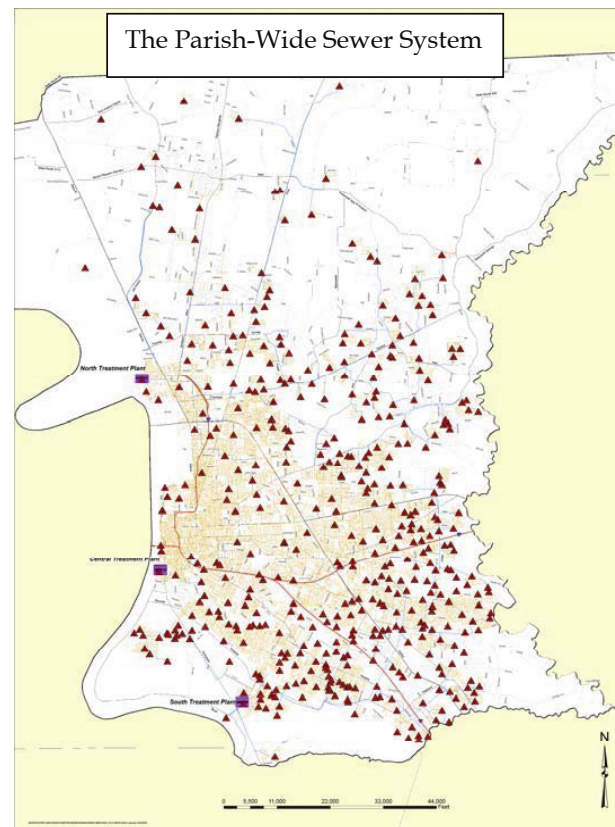
These goals are achieved by implementing comprehensive rehabilitation, capacity improvement, and wastewater treatment and storage improvement projects.

There are 95 individual projects under the SSO Program that include cleaning and inspecting five million feet of gravity sewer for potential rehabilitation; implementing capacity upgrades to 2,000 miles of gravity sewer and forcemains, upgrading 150 pump stations; modifications to the South Wastewater Treatment Plant (SWWTP) to accommodate 200 million gallons per day of wet weather flow; and the addition of 70 million gallons of storage at various locations within the sewer collection system.

The objective of the Program is to provide cost-effective solutions for controlling sewer overflows in the collection system. The Program provides the C-P with the ability to protect public health, improve customer service, provide capacity for future growth, and implement a long-term maintenance program to protect existing and future capital improvements.

As of June 2009, there are a total of 42 projects in design and/or under construction:

Quantity	Status	Construction Value
27	Projects under design (PDP Construction Value = \$520,118,720)	\$ 520,118,720
15	Projects under or near construction	\$ 90,382,189
<b>Total</b>		<b>\$ 610,500,909</b>



- The current C-P Sanitary sewer system includes approximately:
- 470 square mile service area
  - 38,000 manholes
  - 400 pump stations
  - 9.5 million feet of pipe
  - 3 major wastewater treatment plants

- Map Legend:
- Each red triangle represents the location of a pump station
  - The yellow lines represent gravity sewer and forcemain pipe
  - The purple boxes represent a wastewater treatment plant

## Contracting with Local Firms

Engaging the local business community is an important goal of the C-P. As of June 2009, the following prime contracts have been executed:

Quantity	Contractor Type	% Local to Louisiana
3	Closed-Circuit Television (CCTV) Contractors	100%
8	Construction Contractors	69%
22	Design Consultants	100%

In addition, there are approximately 42 additional firms sub-contracted with the design consultants to conduct work such as surveying, geotechnical, wetlands, environmental, archaeological, hydraulics, and erosion control.

## Cost Savings to the City-Parish Community

Of the 11 construction projects bid to-date, the C-P has realized a cost savings of over \$29.4 million, based on engineering estimates compared to actual construction bids.





# SSO NEWS

## Staring Lane Extension – Phase 1 (Burbank to Highland)

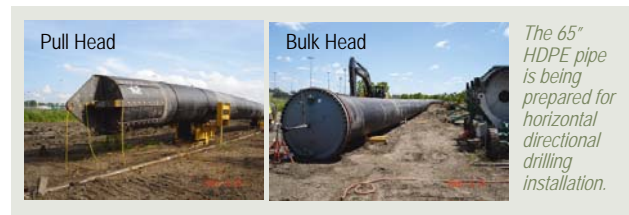
During June, a 65-inch diameter High Density Polyethylene (HDPE) pipe was installed by Garney Construction (using the horizontal directional drilling (HDD) method) on the Staring Lane Forcemain-PS58 Phase I project.

The project consists of installing 3,500 linear feet (LF) of 65-inch diameter sewer force main below ground. Sunland Construction has been subcontracted to perform the horizontal directional drills prior to pulling the pipe underneath roads, existing utilities, and residential communities.

The long sections of the pipe must be fused together above ground, filled with water, and hydro-tested before the pull-back to ensure that there are no weak joints.



A fusing process is used to join two segments of the 65" HDPE pipe together.



The 65" HDPE pipe is being prepared for horizontal directional drilling installation.

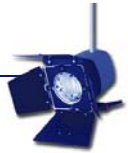


Completing the first of two Horizontal Directional Drills



The entry pit for the 65" HDPE pipe is installed using the HDD method.

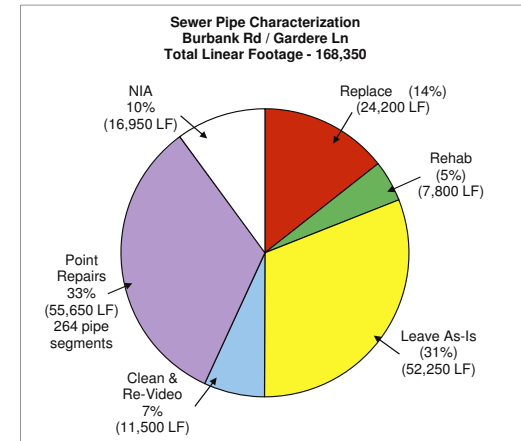
# IN THE SPOTLIGHT



## Gardere Lane – Burbank Road

As part of the Gardere Lane – Burbank Road project, \$5.9 million will be spent to rehabilitate the sewer system.

The project area is located in the southeast portion of East Baton Rouge Parish and is included in the South Gravity Lower Hydraulic Basin. Over 168,300 linear feet (LF) of sewer pipeline, 787 manholes and 2,694 laterals were cleaned, inspected, and characterized. By cleaning the sewer pipes, roots, grease and debris are removed which in itself increases the capacity of the sewer and prolongs the sewer life. Several pipe repairs are being made using cured-in-place pipe (CIPP) (see *Technology Focus*), which is a jointless pipe-within-a-pipe used to rehabilitate sewers with virtually no digging. The work began in early 2009 and is scheduled to be completed by May 2010.

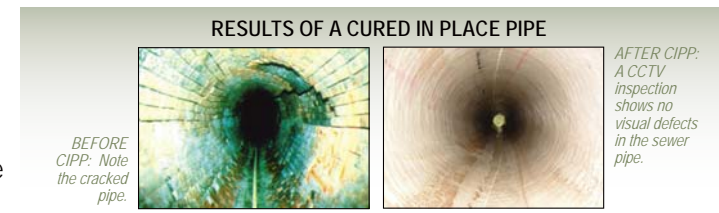


The Basin Characterization Report for the Burbank Lane – Gardere Road project, indicates that 24,200 LF of pipe needs to be replaced; 7,750 LF of pipe needs to be rehabilitated; 11,500 LF of pipe needs to be cleaned and inspected; and point repairs need to be conducted on 264 pipe segments.

# TECHNOLOGY FOCUS

Cured-in-Place Pipe (CIPP) is a trenchless technology used to repair existing sewer pipelines. An epoxy-type resin compound, which is twice as strong as concrete, seamless and waterproof, is inverted or pulled through a damaged pipe. Because little or no digging is involved, this technology minimizes public inconvenience and is an environmentally friendly method for pipe repairs. Once the resin is pulled into the damaged pipe; hot air, steam or water is used to cure the resin and form a tight-fitting, jointless and corrosion-resistant pipe. A final closed-circuit television (CCTV) inspection will determine if the liner is free of any interior bulges, ribs, ripples, folds or any other irregularities (except where these irregularities comply with the liner wall thickness fit and shape).

CIPP is a proven technology in reducing infiltration and leaks in pipeline systems.





# SCHEDULE



#	Project Name	DPW Project #	Design Consultant	Construction Contractor	Phase	Construction Bid Amount	Project Start	Advertise for Construction Bids	Project End
1	Jefferson Highway-Hoo Shoo Too	07-AR-US-0049	DPW	Allen & LeBlanc	Construction	\$2,239,396	5/16/07	6/27/08	9/16/09
2	RMAP1 - Kleinpeter Area Upgrades	03-RMP-S14	Monroe & Corie	Allen & LeBlanc	Construction	\$324,024	2/1/08	7/14/09	5/8/09
3	Gurney Road - Joor Road	07-PS-BD-0017	Neel-Schaffer	Grady Crawford	Construction	\$1,396,347	1/18/08	8/29/08	10/16/09
4	Staring Lane Extension (Ph1: Burbank to Highland)	06-WC-CP-0036	Monroe & Corie	James Construction	Construction	\$4,615,500	1/11/08	9/19/08	8/24/10
5	RMAP1 - PS136 Area Upgrades	99-RMP-S16	Sigma Consulting	Nottingham Construction	Construction	\$8,811,368	2/1/08	10/24/08	5/11/10
6	Gardere Lane - Burbank Road	08-AR-UF-0003	CSRS, Inc.	Allen & LeBlanc	Construction	\$5,957,955	5/16/07	11/14/08	5/26/10
7	RMAP1 - Industriplex Area Upgrades	99-RMP-S08	Forte & Tablada	BRH Garver	Construction	\$9,382,914	3/10/08	10/31/08	1/29/10
8	Immediate Action Projects (combined)	08-TP-BD-0031	CDM, MWH, URS Corp.	Brasfield & Gorrie	Construction	\$25,632,000	11/6/06	12/12/08	9/2/10
9	Comite Drive - Foster Road (Ph1)	07-PS-BD-0019	Monroe & Corie	Hemphill Construction	Construction	\$1,921,037	3/3/08	1/16/09	1/27/10
10	Foster Road - Hooper Road	07-FM-BD-0046	PEC	Hemphill Construction	Construction	\$8,761,675	2/14/08	1/9/09	4/28/10
11	Multiple PS - Lovett Road Area	07-PS-BD-0018	Hartman Engineering	Don M. Barron Contractor	Construction	\$2,158,346	1/17/08	1/16/09	2/25/10
12	Staring Lane - Boone Drive	08-AR-UF-0004	CSRS, Inc.	Grady Crawford	Construction	\$5,426,575	11/27/07	1/23/09	5/10/10
13	Oak Villa Blvd - Choctaw Street	08-AR-UF-0005	CSRS, Inc.	Grady Crawford	Construction	\$8,997,369	4/14/08	5/15/09	7/7/11
14	Comite Drive - Foster Road (Ph2)	02-CS-HC-0001 (GLP#)	Monroe & Corie	TBA	Construction	TBA	6/08	6/09	6/10
15	NWWTP Odor Control	07-WT-TP-0030	Env. Eng Svcs	TBA	Construction	TBA	6/07	5/09	3/10
16	Highland Road - Buchanan Street	08-GS-ST-0021	Burk-Kleinpeter/ Justice & Huang (A Joint Venture)	TBA	Design	TBA	3/08	10/09	2/11
17	Scotland Avenue - Progress Road	09-AR-BD-0011	CSRS, Inc.	TBA	Design	TBA	9/08	7/09	11/10
18	Citiplace/Essen Lane Area - PS119	08-FM-UF-0024	GSA Consulting Engineers, Inc.	TBA	Design	TBA	2/08	11/09	7/11
19	South Boulevard - St. Joseph Street	08-GS-ST-0018	Evans-Graves	TBA	Design	TBA	3/08	1/10	11/11
20	Highland Road - Burbank Drive	08-FM-ST-0023	GOTECH, Inc.	TBA	Design	TBA	3/08	3/10	7/12
21	Elm Grove Garden- Harding Blvd	09-AR-BD-0012	CSRS, Inc.	TBA	Design	TBA	10/08	10/09	1/11
22	Sharp Road - Florida Blvd	09-AR-BD-0013	CSRS, Inc.	TBA	Design	TBA	1/09	11/09	3/11
23	SWWTP Wet Weather Improve (Ph1)	08-TP-BD-0033	CDM	TBA	Design	TBA	6/08	1/10	9/12
24	Kenilworth Drive - Boone Drive	09-AR-BD-0014	CSRS, Inc.	TBA	Design	TBA	3/09	1/10	5/11
25	25th Street - North Acadian Thruway	09-GS-UF-0008	Hartman Engineering	TBA	Design	TBA	2/09	1/10	10/11
26	Capitol Lake - Gayosa Drive	07-PS-BD-0048	Shread-Kuyrkendall & Associates, Inc.	TBA	Design	TBA	1/08	1/10	7/11
27	Downtown Area - PS15,19, 60, 59	08-PS-ST-0056 08-PS-ST-0057	Shaw Environmental & Infrastructure, Inc.	TBA	Design	TBA	3/08	1/10	6/11
28	South Capacity Group Project 2	08-PS-IF-0046	ABMB Engineering	TBA	Design	TBA	3/08	2/10	2/11
29	Staring Lane - PS58 Improvements (Ph2: Highland to Perkins)	TBA	Monroe & Corie	TBA	Design	TBA	4/08	2/10	6/12
30	Central Pump Station - PS 42	09-PS-MS-0036	MWH	TBA	Design	TBA	10/08	4/10	9/12
31	North Capacity Group Project 1B	08-PS-UF-0054	Evans-Graves / Burk Kleinpeter	TBA	Design	TBA	3/08	4/10	10/11
32	Zachary Area Transmission Network	06-WC-IF-0014	SJB/Owen & White	TBA	Design	TBA	3/08	5/10	4/13
33	Consolidated Pump Stations (2,3,4,5,6,7,10)	09-PS-MS-0035	Burk Kleinpeter / JJG	TBA	Design	TBA	11/08	8/10	9/12
34	Choctaw Storage and PS Facility	09-PS-UF-0009	CDM	TBA	Design	TBA	4/08	5/10	7/12
35	North Capacity Group Project 1A	08-GS-UF-0053	URS Corporation	TBA	Design	TBA	3/08	4/10	9/13
36	Consolidated FM (2,3,5,7,10)	09-FM-MS-0033	Shread-Kuyrkendall & Associates, Inc.	TBA	Design	TBA	11/08	9/10	9/12
37	Hooper Storage	09-PS-UF-0007	TRC Engineers	TBA	Design	TBA	1/09	6/10	12/11
38	Pump Station 58A Overflow	09-PS-UF-0001	GEC	TBA	Design	TBA	1/09	8/10	7/13
39	SWWTP Wet Weather Improvements (Ph2)	08-TP-BD-0055	MWH	TBA	Design	TBA	10/08	9/10	1/14
40	Central Consolidation- PS42 FM	09-FM-MS-0036	SJB/Owen & White	TBA	Design	TBA	11/08	10/10	9/12
41	Perkins/Old Perkins Area - Booster PS514 Improvements	09-PS-MS-0034	GEC	TBA	Design	TBA	4/09	10/10	2/13
42	Plank Road - Kleinpeter Road	09-GS-UF-0028	Forte & Tablada	TBA	Design	TBA	3/09	9/10	1/13

# IT'S TOPICAL

## What Exactly is a Sanitary Sewer Overflow (SSO)?

A Sanitary Sewer Overflow (SSO) is the discharge of untreated sewage from a collection system before it reaches a treatment plant.

- The overflow can occur at a pump station, a manhole, a broken or leaking pipe, or a cleanout.
- An overflow or backup can occur due to a blocked or plugged mainline sewer pipe or an undersized sewer pipe.

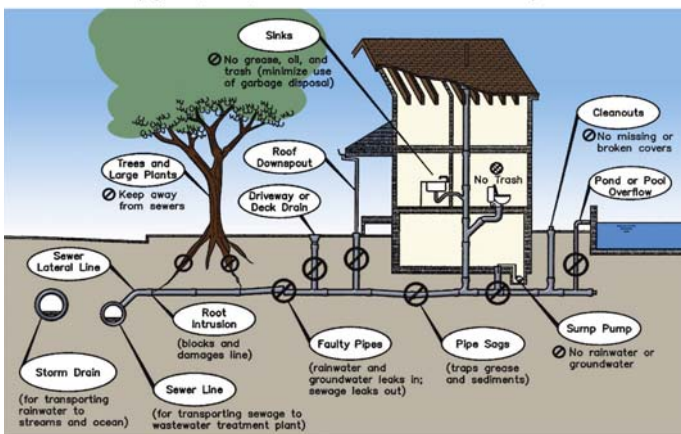
Generally there are two types of SSOs:

- Dry Weather SSOs are caused by:
  - Fats, oils and grease buildup in the pipes
  - Root intrusions
  - Pipe break or failures
  - Debris, rocks, cut roots and vandalism
  - Construction activities
  - Failure of a pump station due to power outages or mechanical failures
  - Lack of sewer capacity
- Wet Weather SSOs are caused by:
  - Excessive rainwater and groundwater entering the system – inflow and infiltration (I/I)
  - Lack of sufficient capacity for wet weather flow
  - Failure of upstream treatment plants during wet weather

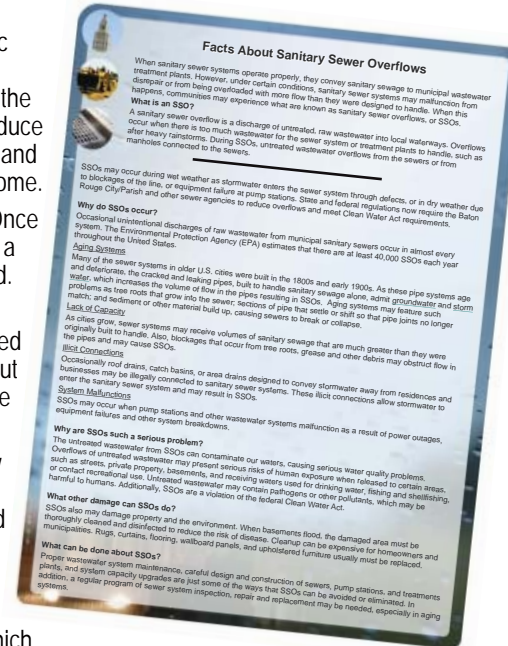
## How Can I Help to Prevent SSOs?

### Help Prevent Sewage Spills!

Keep grease, trash, rainwater and roots out of our sewer system!!



- Disconnect downspouts, driveway or foundation drains or any other stormwater connection from the sanitary sewer system.
- Direct your downspouts so that rain water pours into your yard or garden.
- Install sump pumps to help keep your home dry by pumping ground water away from your foundation. They also should be drained into your lawn or garden.
- Install gutters to direct rainwater away from your house.
- Professionally inspect the line that connects your house with the public sewer line (called a house lateral). Repairing broken laterals, which is the homeowner's responsibility, can reduce stormwater from leaking into pipes and prevent sewer backups into your home.
- Collect used cooking oil in a can. Once the oil has cooled, place the can in a tightly-sealed trash bag and discard.
- Wipe scrap food from plates with a paper towel which can be composted or thrown in the garbage. Do not put scrap food into your sink or garbage disposal.
- Wipe oily pots and pans thoroughly with a used paper napkin or paper towel which can also be composted or thrown in the garbage.
- Understand that fats may be found in a variety of foods such as milk products, gravies and dressings which may clog pipes. Dispose of these items in the garbage can.
- Minimize or avoid using your garbage disposal. Much food waste contains fats, oils and grease and may clog your own pipes and/or the city's sanitary sewers.
- Install and maintain baskets, screens and or strainers over all sink and floor drains.
- Restaurants should learn and follow local regulations of grease trap cleaning schedules.



*Spread the word to your friends and neighbors about what they can do to help prevent SSOs!!!*

For more information about general facts of SSOs, prevention paths and steps to take if you see an SSO occurring, please visit the website at: [http://www.brprojects.com/sewer/pages/programinfo\\_SSO.htm](http://www.brprojects.com/sewer/pages/programinfo_SSO.htm)

## NEAR CONSTRUCTION

Summaries of the two projects that were recently advertised for construction are:

**North WWTP Odor Control:** The project includes the installation of a new biotower, blowers, ductwork and liquid phase chemicals – all for odor control. Construction Contractor pending selection.

**Comite Drive – Foster Road (Phase II):** This portion of the project (Phase II) will be constructed with the Green Light Program. Project advertised for construction bids on June 26, 2009. Contract will be awarded on July 28, 2009.

## CONSTRUCTION



Thirteen projects are under construction, and are described as follows:

**RMAP1-Kleinpeter Area Upgrades:** Conducting capacity upgrades to two pump stations, including 2,000 linear feet of new 4 inch forcemain. As of June 2009, the project is 100% complete and DPW is preparing the final paperwork to close out the project for completion.

**Jefferson Highway-Hoo Shoo Too Road:** Rehabilitation of the gravity collection system, including approximately 117,110 linear feet of pipe and 553 manholes. Construction and cleanup work continues in the Barrett Lane area. As of June 2009, the project is 99% complete.

**Gurney Road – Joor Road:** Upsizing a pump station and forcemains to meet future peak wet weather flows and alleviate SSOs. As of June 2009, the project is 70% complete.

**Gardere Lane – Burbank Road:** Approximately 168,300 linear feet of pipe and 787 manholes will be cleaned, inspected, and rehabilitated. This project utilizes CIPP (see *Technology Focus*) technology to repair pipes. As of June 2009, the project continues in the Hermitage area and is 25% complete.

**RMAP1 – PS136:** Upgrade four pump stations and eliminate nine pump stations and install deeper gravity mains (12,500 linear feet) and 2,000 feet of forcemain. Microtunneling is being conducted in the project area. As of June 2009, the project is 25% complete.

**Staring Lane Forcemain-PS58 Phase I:** A new forcemain servicing overflow P558 will be installed. Phase I of the project is in the Burbank Road – Highland Road area. As of June 2009, the project is 20% complete. Construction on this project is being worked in conjunction with the Greenlight Plan roadwork project. A 65" diameter pipe was horizontally directional drilled (HDD) in the area.

**RMAP1 – Industriplex:** Six pump stations will be demolished and replaced with a new pump station and a 16 inch forcemain. In addition, a new gravity system will be constructed using a microtunneling technology to re-route flows from the demolished pump station. As of June 2009, the project is 14% complete.

**Immediate Action Projects (combined):** Primary treatment, trickling filter, and sludge handling improvements to the South Wastewater Treatment Plant. As of June 2009, the project is 5% complete.

**Comite Drive – Foster Road (Phase I):** Three pump stations will be replaced as well as 2,000 linear feet of gravity pipe. As of June 2009, the project is 1% complete.

**Foster Road – Hooper Road:** Pipe capacity will be increased and includes approximately 32,000 feet of pipe. As of June 2009, the project is 1% complete.

**Multiple PS – Lovett Road Area:** Three pump stations and a portion of the gravity main upstream will be replaced to alleviate SSOs. Crews are currently working in the Morgan Place subdivision. As of June 2009, the project is 1% complete.

**Staring Lane – Boone Drive:** Approximately 148,000 linear feet of pipe and 657 manholes have been cleaned, inspected, and rehabilitated. There are nine crews currently working in the Boone subdivision. As of June 2009, the project is 1% complete.

**Oak Villa Blvd – Choctaw Street:** Approximately 247,000 linear feet of pipe and 990 manholes have been cleaned, inspected and rehabilitated. Construction Contractor (Grady Crawford) was selected in June 2009.



Construction crews mobilizing drill rod equipment that will be used for the HDD pipe installation in the Staring Lane area.



# Looking Ahead...

## Procurement:

### Sealed bids due to DPW

- Standby Generator Procurement: July 7, 2009

## Construction:

### Advertise for New Bids

- Scotland Ave – Progress Road: August, 2009
- Standby Generator Installation: August 2009

## Pre-Bid Conferences

- Comite Drive – Foster Road (Phase 2): July 14, 2009

## Construction Bids Due to DPW

- Comite Drive – Foster Road (Phase 2): July 28, 2009

For detailed information on the projects above,  
please visit the web-site at

[http://www.brprojects.com/sewer/pages/contractor\\_calendar.htm](http://www.brprojects.com/sewer/pages/contractor_calendar.htm)



## BATON ROUGE SSO PROGRAM PROCESS REPORT

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