BATON ROUGE SSO PROGRAM PROGRESS REPORT

JULY 2009



City of Baton Rouge/ East Baton Rouge Parish Department of Public Works



In association with SIGMA Consulting Group, Inc.





Program Management

A sound sewer system is essential to a great city like Baton Rouge because it provides the capacity to grow and develop,

reduces sewer overflows and protects public health and the environment.

In addition, significant positive economic impacts result from investment by local government. In August 2008, the US Conference of Mayor's released a report stating that for "every one dollar invested in public water and sewer infrastructure



services, approximately \$8.97 are added to the national economy." The report also indicated that the US Department of Commerce estimates "that by adding one new job in local water and sewer creates 3.68 jobs in the national economy to support it."

To view a copy of the press release and report titled *Local Government Investment in Municipal Water and Sewer Infrastructure*, please visit http://usmayors.org/urbanwater/ -Mayors '08 Action Forum on Infrastructure.

As of July 2009, the Baton Rouge Sanitary Sewer Overflow (SSO) Program enters into the 3rd quarter 2009 with 1 project completed and 49 of the 95 planned Program Delivery Plan (PDP) projects under design and/or construction.

Quantity	Status	Construction Value		
1	Project Completed	\$	324,024	
35	Projects Under Design	\$	598,418,720	
14	Projects Under Construction	\$	88,058,526	
50		\$	686,801,270	



Communicating with the Community is a Priority!

Communicating with the public to inform them of the Program and meeting objectives for

outreach are specified by the Consent Decree and require a comprehensive approach to outreach and public awareness.

As the number of active SSO construction projects continue to increase, the City-Parish will keep the public informed and educated about the Program. One such communication tool is the SSO website: <u>http://www.brprojects.com</u>, where residents can obtain extensive, up-todate information about the program including copies of monthly progress reports, regulatory information, detailed design and construction information, program calendar, and informational presentations.

During construction activities that may be disruptive to the residents, construction contractors are issuing a 7-day advance notice of open sewer excavation in the form of a *Homeowner Notification Door Knocker* (shown on right). This tool informs the homeowner of the impending sewer work.

Other public outreach efforts include:

- Keeping residents of the City-Parish informed about the progress of the SSO Program and ways to minimize quality-of-life impacts.
- Ensuring that residents, commuters, and businesses impacted by construction activities receive advance notification of impending disruption.
- Developing customer relations protocols for interaction between residents and construction personnel and providing guidance to construction personnel.

Public outreach strategies are critical to road users, the general public, area residents and business. Effective use

BATON ROUGE TO: Current Resident RE: City-Parish Contractual Sewer Repairs The City of Baton Rouge Department of Public Works has assigned sewer repairs needed in this area to <u>Contractor's Name</u>. <u>Contractor'</u> installations will be in accordance with local, state, and federal regulations. If you have dogs or other pets in your yard, we would appreciate your keeping them confined while our crews work in your neighborhood. We apologize for any inconvenience and would like to thank you in advance for your cooperation. If you have any questions or problems, please feel free to contact Contractor's Name at the telephone number below: Main office: 555-0000 After hours/Holidays/Weekends: 555-0001 Project Manager: 555-0002 Asst. Project Manager: 555-0003 Project Coordinator: 555-0004

Homeowner Notification Door Knocker



MEN

of public information can lead to improved driver and worker safety, less traffic delay and reduced driver frustration.

SSO News

RMAP1 – Kleinpeter Area Upgrades

Under the SSO Program, the RMAP1- Kleinpeter Area Upgrades project is the first capacity project to complete construction.

This project is located in the Santa Maria Golf Club/Country Club of Louisiana area near Interstate 10 and Highland Road. Improvements include capacity upgrades to PS 382 and the installation of 2,000 linear feet of 6-inch forcemain. These improvements will increase the pumping size by approximately 40%.

Construction is complete and final acceptance by the City-Parish is expected in early September 2009.

New submersible pumps wrapped from the factory and ready for installation into the newly resurfaced, rehabilitated





wet well.

Construction equipment is used to remove the existing pump station.

Near Pump Station 382, proper care is taken by the contractor when by-pass pumping started on the existing lift station.



Looking North of the Santa Maria Golf Club, the existing pump station 382 is being readied for the replacement of its pumps with two new 150hp pumps.

IN THE SPOTLIGHT

South Wastewater Treatment Plant (SWWTP) – Wet Weather Improvements – Phase 1



The SWWTP Wet Weather Improvements project will be designed and constructed in two phases. Phase I, in general, includes a new pump station, screening facilities, electrical building, equalization tanks, associated valve vaults, meter vaults, odor control and piping.

As part of the design process, geotechnical engineering studies were conducted to determine geotechnical conditions such as groundwater levels; soil types; breaking pressures; settlement and explanation capabilities of the soil; recommendations for slope stabilization during construction; soil corrosion potential; construction dewatering requirements; and general recommendations for structural and civil site design and for pipe trenching, bedding, backfilling and surface restoration.

Based on the anticipated general subsurface conditions, this geotechnical field exploration program included conducting test borings and installing groundwater piezometers. Both will help to determine the soil and groundwater conditions necessary to provide geotechnical engineering recommendations including shallow and deep foundation design, settlement, design groundwater levels, below-grade lateral loads, buoyancy resistance, pipe trenching, and pavement design.

In the final Geotechnical Investigation and Foundation Design Recommendations Report, field investigation, laboratory analyses, and resulting geotechnical recommendations will be documented.

Some proposed new structures at the SWWTP include:

- Four new equalization tanks
- Raw wastewater equalization pump station
- Screening/Grit building
- Preliminary treatment facility
- Utility substation/ main elctrical builing
- Three different odor control units



A geotechnical investigation was conducted to determine the feasibility of constructing the four new Flow Equalization Tanks that will be used to hold 16 Million Gallons of wastewater before being treated.

Estimated construction cost is \$90M. Construction is scheduled to be complete in September 2012.

SCHEDULE

	Project Name	DPW Project #	Design Consultant	Construction Contractor	Status	Construction Bid Amount	Project Start	Advertise for construction bids	Project End
1	RMAP1 - Kleinpeter Area Upgrades	03-RMP-S14	Monroe & Corie	Allen & LeBlanc	Pending Closure	\$ 324,024	2/1/2008	7/14/2008	5/8/2009
2	Jefferson Highway-Hoo Shoo Too	07-AR-US-0049	DPW	Allen & LeBlanc	Construction	\$ 2,239,396	5/16/2007	6/27/2008	9/16/2009
3	Gurney Road - Joor Road	07-PS-BD-0017	Neel-Schaffer	Grady Crawford	Construction	\$ 1,396,347	1/18/2008	8/29/2008	10/16/200
4	Staring Lane Extension (Ph1: Burbank-Highland)	06-WC-CP-0036	Monroe & Corie	James Construction	Construction	\$ 4,615,500	1/11/2008	9/19/2008	8/24/2010
5	RMAP1 - PS136 Area Upgrades	99-RMP-S16	Sigma Consulting	Nottingham Construction	Construction	\$ 8,811,368	2/1/2008	10/24/2008	5/11/2010
6	Gardere Lane - Burbank Road	08-AR-UF-0003	CSRS, Inc.	Allen & LeBlanc	Construction	\$ 5,957,955	5/16/2007	11/14/2008	5/26/2010
7	RMAP1 - Industriplex Area Upgrades	99-RMP-S08	Forte & Tablada	BRH Garver	Construction	\$ 9,382,914	3/10/2008	10/31/2008	1/29/2010
8	Immediate Action Projects (combined)	08-TP-BD-0031	CDM/MWH/URS Corp.	Brasfield & Gorrie	Construction	\$ 25,632,000	11/6/2006	12/12/2008	9/2/2010
9	Comite Drive - Foster Road (Ph1)	07-PS-BD-0019	Monroe & Corie	Hemphill Construction	Construction	\$ 1,921,037	3/3/2008	1/16/2009	1/27/2010
10	Foster Road - Hooper Road	07-FM-BD-0046	PEC	Hemphill Construction	Construction	\$ 8,761,675	2/14/2008	1/9/2009	4/28/2010
11	Sullivan Rd/Lovett Rd/Wax Rd	07-PS-BD-0018	Hartman Engineering	Don M. Barron Contractor	Construction	\$ 2,158,346	1/17/2008	1/16/2009	2/25/2010
12	Staring Lane - Boone Drive	08-AR-UF-0004	CSRS, Inc.	Grady Crawford	Construction	\$ 5,426,575	11/27/2007	1/23/2009	5/10/2010
12	Oak Villa Blvd - Choctaw Street	08-AR-UF-0005	CSRS, Inc.	Grady Crawford	Construction	\$ 8,997,369	4/14/2008	5/15/2009	7/7/2011
14	Comite Drive - Foster Road (Ph2)	02-CS-HC-0001 (GLP#)	Monroe & Corie	JB James Construction	Construction	\$ 895,957	6/23/2008	6/26/2009	6/22/2010
14	NWWTP Odor Control	07-WT-TP-0030	Env. Eng Svcs	TBA	Near Construction	\$ 693,937 TBA	6/29/2007	5/29/2009	3/29/2010
16	Highland Road - Buchanan Street	08-GS-ST-0021	Burk-Kleinpeter/Justice & Huang (JV)	TBA	Design	TBA	3/13/2008	11/20/2009	3/4/2011
17	Scotland Avenue - Progress Road	09-AR-BD-0011	CSRS, Inc.	TBA	Design	TBA	9/9/2008	8/28/2009	11/25/201
18	Citiplace/Essen Lane Area - PS119	08-FM-UF-0024	GSA Consulting Engineers, Inc.	TBA	Design	TBA	2/25/2008	2/5/2010	6/1/2011
19	South Boulevard - St. Joseph Street	08-GS-ST-0018	Evans-Graves	TBA	Design	TBA	3/27/2008	1/8/2010	11/1/2011
20	Highland Road - Burbank Drive	08-FM-ST-0023	GOTECH, Inc.	TBA	Design	TBA	3/31/2008	3/9/2010	7/13/2012
21	Elm Grove Garden- Harding Blvd	09-AR-BD-0012	CSRS, Inc.	TBA	Design	TBA	10/1/2008	10/16/2009	1/27/201
22	Sharp Road - Florida Blvd	09-AR-BD-0013	CSRS, Inc.	TBA	Design	TBA	1/15/2009	12/18/2009	3/31/2011
23	SWWTP Wet Weather Improve (Ph1)	08-TP-BD-0033	CDM	TBA	Design	TBA	6/23/2008	1/29/2010	9/21/2012
24	Kenilworth Drive - Boone Drive	09-AR-BD-0014	CSRS, Inc.	TBA	Design	TBA	3/26/2009	1/22/2010	5/6/2011
25	25th Street - North Acadian Thruway	09-GS-UF-0008	Hartman Engineering	TBA	Design	TBA	2/2/2009	1/8/2010	10/27/201
26	Capitol Lake - Gayosa Drive	07-PS-BD-0048	Shread-Kuyrkendall & Associates, Inc.	TBA	Design	TBA	1/14/2008	1/8/2010	7/21/2011
27	Downtown Area - PS15,19, 60, 59	08-PS-ST-0056 08-PS-ST-0057	Shaw Environmental & Infrastructure, Inc.	ТВА	Design	TBA	3/24/2008	1/8/2010	6/10/2011
28	South Capacity Group Project 2	08-PS-IF-0046	ABMB Eng.	TBA	Design	TBA	3/10/2008	9/28/2009	1/12/2011
29	Staring Lane - PS58 (Ph2: Highland-Perkins)	TBA	Monroe & Corie	TBA	Design	TBA	4/8/2008	1/29/2010	6/1/2012
30	Central Pump Station - PS 42	09-PS-UF-0003	MWH	TBA	Design	TBA	10/21/2008	5/21/2010	10/19/201
31	North Capacity Group Project 1B	08-PS-UF-0054	Evans-Graves / Burk Kleinpeter	TBA	Design	TBA	3/10/2008	4/30/2010	10/12/201
32	Zachary Area Transmission Network	06-WC-IF-0014	SJB/Owen & White	TBA	Design	TBA	3/24/2008	5/28/2010	5/16/2013
33	Consolidated Pump Stations (2,3,4,5,6,7,10)	09-PS-MS-0035	Burk Kleinpeter / JJG	TBA	Design	TBA	11/7/2008	8/30/2010	9/28/2012
34	Choctaw Storage and PS Facility	09-PS-UF-0009	CDM	TBA	Design	TBA	4/14/2008	5/14/2010	7/30/2012
35	North Capacity Group Project 1A	08-GS-UF-0053	URS Corp.	ТВА	Design	TBA	3/10/2008	4/23/2010	9/27/2013
36	Consolidated FM (2,3,5,7,10)	09-FM-MS-0033	Shread-Kuyrkendall & Associates, Inc.	ТВА	Design	TBA	11/7/2008	9/21/2010	9/21/2012
37	Hooper Storage	09-PS-UF-0007	TRC Engineers	ТВА	Design	TBA	1/19/2009	6/4/2010	12/22/201
38	Pump Station 58A Overflow	09-PS-UF-0001	GEC	TBA	Design	TBA	1/5/2009	7/23/2010	6/20/2013
39	SWWTP Wet Weather Improve (Ph2)	08-TP-BD-0055	MWH	ТВА		TBA	10/14/2008	9/17/2010	1/22/2014
39 40	Central Consolidation- PS42 FM	09-FM-MS-0036	SJB/Owen & White	ТВА	Design	TBA	11/7/2008	10/29/2010	9/28/2012
					Design				
41	Perkins/Old Perkins - BPS514 Improvements	09-PS-MS-0034	GEC	TBA	Design	TBA	4/24/2009	10/22/2010	2/25/2013
	Plank Road - Kleinpeter Road	09-GS-UF-0028	Forte & Tablada	TBA	Design	TBA	3/23/2009	10/15/2010	2/20/2013
43	Staring Lane - PS58 (Ph3: Perkins-PS58)	TBA	Monroe & Corie	TBA	Design	TBA	4/30/2009	9/8/2010	1/15/2013
44	Foster Drive - Government Street	TBA	CSRS, Inc.	TBA	Design	TBA	5/25/2009	3/22/2010	7/29/2011
45	Brookstown Road - Evangeline Street (Ph1)	TBA	CSRS, Inc.	TBA	Design	TBA	7/10/2009	5/10/2010	9/17/201
46	Bayou Duplantier Area Sewer Upgrades	09-GS-MS-0042	TBA	TBA	Design	TBA	8/31/2009	9/9/2011	1/15/2014
47	Multiple PS - Jefferson Hwy - Park Forest Dr	TBA	ТВА	TBA	Design	TBA	6/8/2009	5/23/2011	3/31/201
48	Nicholson Dr - Highland Rd - Perkins Rd	TBA	ТВА	TBA	Design	TBA	6/29/2009	9/9/2011	1/15/201
49	Government St - S. Acadian Thruway	09-GS-MS-0043	TBA	TBA	Design	TBA	8/28/2009	9/9/2011	1/15/2014
50	Multiple PS - Nicholson Dr - Brightside Dr	TBA	ТВА	TBA	Design	TBA	9/14/2009	5/24/2011	9/30/201

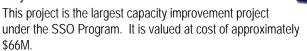
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IN THE SPOTLIGHT

Zachary Area Transmission Network Improvements Project

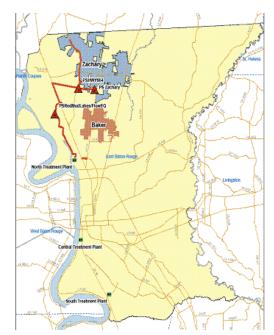


Three major pump stations, major gravity sewage pipelines and forcemains, and a flow equalization basin are being constructed to relieve capacity problems within the Zachary and Baker service areas. Several alternatives were thoroughly considered in order provide the most efficient and cost-effective solution. By directing flows from the Zachary area directly the NWWTP, this project will relieve the Baker area of the system of approximately 9.5MGD thereby eliminating the need for potential capacity upgrades and construction inconveniences in the Baker area.

Major benefits of the project are:

- Provide capacity for 50,000 new potential customers,
- Eliminate the need to upgrade the North Wastewater Treatment Plant
- Reduce flows and loads to the Baker service area pipeline and pumping stations.

This project is a great example of how the City-Parish plans to meet EPA requirements and provide room for growth.



TECHNOLOGY FOCUS

Why Conduct Geotechnical Investigations?

Geotechnical investigations are conducted by specialty civil engineers trained in understanding the behavior of earth materials. Much information about soil characteristics are obtained from below the surface, which requires some form of subsurface exploration. Methods of observing and obtaining soils below the surface include test pits, trenching (particularly for locating seismic faults and slide planes), boring, and in situ tests.

One of the main purposes of geotechnical explorations is to provide recommendations which will serve as a basis of final design for a proposed facility. Engineering recommendations can include the assessment of the risk to humans, property and the environment from natural hazards such as earthquakes, landslides, sinkholes, soil liquefaction, debris flows and rock falls.

All design consultants and construction contractors under the SSO Program adhere to the Geotechnical Investigation Guidelines written for the Sanitary Sewer Overflow (SSO) Control and Wastewater Facilities Program. These guidelines give specific direction to the Geotechnical Engineer about performing a reconnaissance of the project site early in the planning effort. The object is twofold: (1) recognize conditions affecting the conduct of the investigation and (2) recognize conditions that could affect design and construction of the project.

Boring locations, depths, sampling intervals, and piezometers are chosen to collect geotechnical information relevant to the design and construction issues believed to exist. Recently geotechnical investigations were conducted at the SWWTP to determine the feasibility of constructing building foundations, site development and underground utility support.

Comprehensive recommendations for both design and construction are documented in a geotechnical report.



Geotechnical Engineers are drilling soil samples in the Northwest Area of the SWWTP. Results of the soil samples will be used to help assess the site characteristics where the proposed Equalization Tasks will be constructed.



COMPLETED CONSTRUCTION

CONSTRUCTION RMAP1-Kleinpeter Area Upgrades: Conducting capacity upgrades to one pump station, including 2.000 linear feet of new 6-inch forcemain. As of July 2009, the project

2,000 linear feet of new 6-inch forcemain. As of July 2009, the project is 100% complete. By increasing the force main size from 4" to 6", this pump station will have approximately 40% increase in pumping capacity. To read more about the project, please see page 4.

CONSTRUCTION



A summary of the project that will be advertised for construction is:

North WWTP Odor Control: The project consists of two phases to address odor issues. The first phase of installing chemical feed systems at 5 major pump stations is complete. The second phase of the project consists of installing new biotower units at the 2 headworks buildings. The design for this portion is near completion and the project will be advertised for bid in October 2009.

CONSTRUCTION



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

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. Efforts continue to identify additional areas requiring rehabilitation. As of July 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 July 2009, interior painting in the pump stations is being conducted and the project is 75% complete.

Gardere Lane – Burbank Road: Approximately 168,300 linear feet of pipe and 787 manholes will be cleaned, inspected, and rehabilitated. As of July 2009, seven crews are working on point repairs in the sewer pipe. The project is approximately 28% complete.

RMAP1 – PS136: Four existing pump stations will be demolished and replaced with a new pump station, 27,000 linear feet of associated 4 to 24 inch force mains. A new gravity system will be constructed routing sewer flow from the four demolished pump stations to one new centralized 4.5 million gallon per day PS136. The new gravity

system includes the construction of approximately 10,300 linear feet of 10 to 12 inch gravity sewer, approximately 6,000 linear feet of 15 to 18 inch gravity sewer. As of July 2009, the project is approximately 28% complete.

Staring Lane Forcemain-PS58 Phase I: A new forcemain will be installed. The segment of the forcemain included in this project is Segment A and runs from Burbank Drive to Highland Road. As of July 2009, the project is 20% complete. Construction on this project is being worked in conjunction with the Greenlight Plan roadwork project.

RMAP1 – Industriplex: Six pump stations will be demolished and replaced with a new pump station and a 16 inch forcemain. This project will reduce pump station operation and maintenance costs and reduce any possible odor issues associated with the existing pump stations. As of July 2009, the project is 19% complete.

Comite Drive – Foster Road (Phase I): The Comite Drive – Foster Road project involves replacing PS291, PS94 and PS246 and nearby forcemains to alleviate SSOs at and near the pump stations. In addition, the new pump stations will meet future peak wet weather flow, avoiding exceedances predicted on recent models. As of July 2009, the project is 15% complete.

Staring Lane – Boone Drive: The project basin consists of approximately 148,000 linear feet of gravity pipe and 657 manholes. The purpose of this rehabilitation is to repair or replace components of the existing sewer system that are defective, thereby significantly reducing the excessive infiltration and inflow that contribute to sanitary sewer overflows. Construction is finishing in the Worthington Lakes area and restoration work continues in the Boone subdivision. As of July 2009, the project is 15% complete.

Immediate Action Projects (combined): The project includes a number of improvements including: primary clarifier mechanical replacement, trickling filter pump station and piping/pumping modifications to the digester complex (will be implemented to assist the plant in complying with its effluent permit limits). These improvements will be implemented early in the program to bring the plant into compliance as soon as possible. As of July 2009, the project is 5% complete.

Foster Road – Hooper Road: Pipe capacity will be increased and includes approximately 32,000 feet of pipe. Currently pipe is being fused to start the horizontal directional drill (HDD) in August. As of July 2009, the project is 3% complete.

Sullivan Road/Lovett Road/Wax Road: 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 July 2009, the project is 3% complete.

Oak Villa Blvd – Choctaw Street: Approximately 247,000 linear feet of pipe and 990 manholes have been cleaned, inspected and rehabilitated. Construction contract was awarded to Grady Crawford in June 2009. Estimated Notice to Proceed is September 2009.

Comite Drive – Foster Road (Phase II): This portion of the project (Phase II) will be constructed with the Green Light Program. Construction contract was awarded to J.B. James Construction in July 2009. Estimated Notice to Proceed is October 2009.



Looking Ahead ...

Design:

Advertise for Request for Qualifications (RFQ)

- Bayou Duplantier Area Sewer Upgrades: 3rd Quarter 2009
- Multiple PS Jefferson Hwy Park Forest Dr: 3rd Quarter 2009
- Nicholson Dr Highland Rd Perkins Rd: 3rd Quarter 2009
- Government St South Acadian Thruway: 3rd Quarter 2009
- Multiple PS Nicholson Dr Brightside Dr: 3rd Quarter 2009

Construction:

Advertise for Construction Bid

- Scotland Ave Progress Rd: August 2009
- South Capacity Group 2: September 2009
- North WWTP Odor Control: October 2009

For detailed information on the projects above, please visit the web-site at http://www.brprojects.com/sewer/pages/contractor_calendar.htm



BATON ROUGE SSO PROGRAM PROCESS REPORT

JULY 2009

300 North Boulevard, Room 208 Baton Rouge, LA 70802 (225) 389-3158 DPW@brgov.com

