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SEWERAGE & WATER BOARD OF NEW ORLEANS, LOUISIANA



Report on Operations for 2007

BRUNO & TERVALON
JULIEN ENGINEERING AND CONSULTING

 **BLACK & VEATCH**
Building a **world** of difference.®

MISSION STATEMENT

To be one of the best and most respected suppliers of sewer, water, and drainage services in the south-central United States by providing quality, reliable, and cost effective services to our Customers while maintaining fair and ethical treatment of our well-trained and highly motivated employees.

OUR VALUES

Open, honest communication

Trust and respect for each other

Offering and encouraging education and opportunity to employees

Fostering enthusiasm among employees through example of the managers/supervisors

Providing direction and planning and encouraging interdepartmental team work

Assuring reliability in providing services to customers

KEY RESULT AREAS

Customer Satisfaction

Cost Effectiveness

Employee Satisfaction

Capabilities Improvement through Training

November 25, 2008

Sewerage & Water Board of New Orleans
625 St. Joseph Street
New Orleans, LA 70165

Dear Board Members:

In accordance with our agreement, we are submitting this Report on Operations of the Water, Sewerage, and Drainage Departments for the year 2007. Analyses have been made to confirm compliance with covenants of the General Water Revenue Bond Resolution and the General Sewerage Revenue Bond Resolution.

The report also contains projections of expected future financial activity for the three departments for the period 2008 through 2012. These projections are based upon historical trends and the Board's operating and capital budgets. Projected costs provide for changes in operating procedures resulting from completion of major plant facilities, and include an allowance for anticipated future price inflation.

Bound separately is the Executive Summary for the Report on Operations for 2007.

We wish to acknowledge the cooperation and assistance of utility staff in providing guidance and information for the study.

We appreciate the opportunity to be of service to the Sewerage and Water Board.

Very truly yours,

BLACK & VEATCH CORPORATION



Anna White
Project Manager

Enclosure

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**Report on Operations
for 2007
Sewerage and Water Board
of New Orleans**

Introduction

Purpose and Scope

This report covers operations of the Sewerage and Water Board of New Orleans for the year ended December 31, 2007. The report presents findings of studies made in compliance with covenants of the 1998 and Supplemental Water Revenue Bond Resolutions and the 1997 and Supplemental Sewerage Revenue Bond Resolutions. The report includes recommendations designed to assist the Sewerage and Water Board of New Orleans and its staff in planning future operational policies. Subjects covered include the following:

1. Adherence to covenants of the Water Revenue Bond Resolutions and the Sewerage Revenue Bond Resolutions.
2. Ability to finance projected revenue requirements including proposed capital improvements.
3. Operations of the water, sewerage, and drainage systems.

Definitions

In this report, "Sewerage and Water Board of New Orleans," "Sewerage and Water Board," and "Board" are used synonymously. "General Resolution" refers to either the 1998 and Supplemental Water Revenue Bond Resolution or the 1997 and Supplemental Sewerage Revenue Bond Resolutions.

"Water Department" is the Sewerage and Water Board organization providing domestic water service to residents of the City of New Orleans. "Sewerage Department" is the organization providing wastewater service, and "Drainage Department" is the organization providing stormwater conveyance and pumping. The Board organization includes some groups who participate in two or more operational activities.

History

The Sewerage and Water Board of New Orleans was created by Act No. 6 of the Louisiana Legislature in 1899 as a special board independent of City government to develop, operate, and maintain the water and sewerage systems in the City of New Orleans. In 1903, the

Louisiana Legislature gave control of the City's drainage system to the Board. Since that time growth of the service area and increased service requirements have expanded the magnitude and complexity of operations.

Available sources of funds prior to 1958 for financing utility operations and improvements included ad valorem taxes, contributions-in-aid-of-construction, general obligation bonds of the City of New Orleans, and water revenues.

In 1974, the American Institute of Certified Public Accountants expanded their reporting guidelines for government operated utilities to include depreciation accounting. As a result, the Board initiated a preliminary system of accounting recognizing estimated historical investment as a basis for annual depreciation accruals. Implementation of the detailed plant accounting and record keeping required was started in 1979.

The Board's computer based budget code system provides a method of identification of operation and maintenance expenses for the Water, Sewerage, and Drainage Departments. Allocation of expenses is based upon actual or direct expenses of each Department together with an apportionment of joint expenses. The procedures permit utility plant accounting with annual costs charged to the appropriate property account instead of being charged to current Department income. In accounting for debt service, interest is charged to current year's income and principal and debt service reserve payments are charged to the respective account balances. Historical operating costs, discussed later in this report, reflect the functional classifications.

Water Department

Act No. 541 increased the Board's ability to finance needed water system improvements by authorizing the Board to issue water revenue bonds. Subsequently, water revenue bonds in the amounts of \$6,200,000 in 1960, \$1,500,000 in 1961, \$2,500,000 in 1964, \$4,000,000 in 1971, \$6,000,000 in 1978, \$17,000,000 in 1980, \$3,000,000 in 1981, and \$5,000,000 in 1982 were issued. All water system revenue bonds outstanding in 1986 were defeased by the \$31,350,000 Series 1986 Water Revenue Refunding bond issue. Additional revenue bonds in the amount of \$16,000,000 were issued in 1998 and \$34,000,000 were issued in 2002. As of December 31, 2007, \$40,690,000 remains outstanding on the 1998 and 2002 issues.

Act No. 566 reauthorized the Board to fix and administer a schedule of water rates to meet the operational and capital costs of the public water system, to issue water revenue bonds, and discontinue the free water allowance for sewerage purposes effective November 9, 1966.

Sewerage Department

Act No. 567 gave the Board authority to set and collect sewerage service charges, to be used for operational and capital costs of the Sewerage Department, and to issue sewerage service

revenue bonds. This Act permitted the Board, for the first time in its history, to charge users of the sewerage system directly for related costs. Under the authority of Act No. 567, sewerage service charges were implemented May 1, 1967; and subsequently, sewerage service revenue bonds totaling \$33,000,000 were sold in 1968, 1976, 1982 (2 issues), and 1983. All sewerage system revenue bonds outstanding in 1986 were defeased by the \$21,280,000 Series 1986 Sewerage Service Revenue bonds. These bonds were fully retired in 1994. Sewerage system revenue bonds in the amount of \$30,000,000 were issued in 1997; \$25,000,000 in 1998; \$47,100,000 in 2000 (two issues); \$32,720,000 in 2001; \$57,000,000 in 2002; and \$5,500,000 in 2003. \$33,000,000 in revenue bonds, \$25,200,000 in Bond Anticipation Notes (BANs), and \$111,800,000 in Refunding BANs were issued in 2004. The 2004 BANs were defeased by the \$137,000,000 Refunding BANs Series 2005A. Due to Hurricane Katrina, in July of 2006 the Board entered into a cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2006 through 2008. Borrowings as of December 31, 2007, were \$64,659,977 of the \$77,465,247 available for the Board. Of the amount, \$31,500,000 was used to make a partial payment on the Refunding BANs Series 2005A that matured on July 26, 2006. A portion of the 2005 BANs was refinanced with the Refunding BANs Series 2006. The remaining balance on the 2005 BANs were paid from funds on hand. Outstanding principal on revenue bonds totaled \$180,335,000 as of December 31, 2007 and is summarized in the table on the following page.

Drainage Department

In 1966 three constitutional amendments, Acts No. 565, 566, and 567 were enacted by the Louisiana Legislature and subsequently approved by the State's voters. Act No. 565 authorized the City of New Orleans to levy a three-mill ad valorem tax, effective January 1, 1967, to be used solely for operations and capital costs of the drainage system. Provision for issuance of bonds repayable solely from the three-mill tax was also included in the Act. In 1967, the Board issued \$15,000,000 of three-mill tax bonds. These bonds were fully retired in 1992.

Under the Louisiana State Constitution, all assessments beginning in 1978 were equalized, with residential property assessed at 10 percent of its market value and commercial and personal property assessed at 15 percent of market value. The constitution also provides that

Outstanding Sewerage Utility Debt Issues		
Description	Issue Amount	Amount Outstanding (a)
	\$	\$
Revenue Bonds		
Series 1997	30,000,000	19,175,000
Series 1998	25,000,000	16,825,000
Series 2000A	26,800,000	20,680,000
Series 2000B	20,300,000	15,755,000
Series 2001	37,720,000	25,795,000
Series 2002	57,000,000	47,875,000
Series 2003	5,500,000	4,715,000
Series 2004	33,000,000	29,515,000
Total	235,320,000	180,335,000
Bond Anticipation Notes		
2004 BANs (b)	25,200,000	
2004 Refunding BANs (b)	111,800,000	
2005A	137,000,000	
2006	24,030,000	24,030,000
Total	298,030,000	24,030,000
(a) As of December 31, 2007.		
(b) Defeased by 2005A BANs.		

no tax revenues shall be lost by reassessments; thus, it has been necessary to revise the millage rates in effect at various times. If reassessment results in a lower tax base, the millage rate may be adjusted upward. If a larger tax base results, the millage rates must be rolled back. However, by state law, the City Council, upon request and after a public hearing, may increase the millage rates to the prior year's level. The three-mill tax rate, 6.01 mills since 1988, was increased to 6.40 mills in 1992 due to reassessment, and remained at that level through 2007.

Passage of a referendum in April 1977, authorized the collection of an additional six-mill, ad valorem tax for drainage purposes, effective January 1, 1978. The six-mill ad valorem tax was increased to 6.09 mills in 1988 and to 6.48 mills in 1992 due to reassessment. In 1978, the State Legislature authorized a debt limit of \$18,000,000 as sought by the Board of Liquidation, City Debt. That debt limit was eliminated by Legislative action in 2003. The Board issued \$18,000,000 in Series A, six-mill tax bond in November 1978. During 1994 the Board issued Drainage System Refunding Bonds, Series 1994, for the purpose of refunding the

six-mill 1978 bonds. The 1994 bonds were considered to be an obligation of the six-mill ad valorem tax revenue and have been repaid.

In 1980, a constitutional amendment, Act No. 844, authorized an increase in the exemption of each homestead from ad valorem taxes from \$5,000 to \$7,500, and provided for periodic reassessment.

In 1981, a nine-mill ad valorem tax was approved and became effective January 1, 1982. The purpose of the nine-mill tax levy is to provide funds for the operation, maintenance, and construction of the drainage system. State law set the authorized debt limit for nine-mill bonds at \$68,000,000. That debt limit was eliminated by Legislative action in 2003. The Board sold nine-mill bond issues of \$22,000,000 in 1982 and \$30,000,000 in 1983. In 1986, \$12,525,000 Drainage System Bonds Series 1986A and \$15,755,000 Drainage System Bonds Series 1986B were authorized and sold for the purpose of refunding a portion the 1982 nine-mill bonds and a portion of the 1983 nine-mill bonds, respectively.

In 1992 the Drainage System Bonds, Series 1982, was fully refunded, and beginning in 1993, debt service payments on the Drainage System Bonds, Series 1986A was paid from nine-mill tax revenue. In 1993, proceeds from the Drainage System Bonds, Series 1986B fully refunded the Drainage System Bonds, issue of 1983, and the debt service on these bonds became the obligation of nine-mill tax revenue. All Series 1986A and Series 1986B bonds have been retired. In 1998 nine-mill bonds in the amount of \$10,000,000 were issued and as of December 31, 2007, the outstanding balance was \$6,650,000. Additional nine-mill bonds in the amount of \$20,000,000 were issued in 2002, bringing the total of six-mill and nine-mill Drainage System Bonds outstanding as of December 31, 2007 to \$23,835,000.

In 1988, reassessment caused the nine-mill ad valorem tax to be increased to 9.13 mills, and it was increased due to reassessment again in 1992 to 9.71 mills and will remain at this level at least through 2008. A reassessment occurred in 1999, which effectively increased millage receipts by approximately 10 percent.

Collection of the three-mill ad valorem tax levy is authorized until the year 2017; six-mill tax until 2028; and nine-mill tax until 2032.

General

The Board provides free water and sewer services to the City of New Orleans and its public institutions as mandated by state law in accordance with R.S. 33:4096 and R.S. 33:4121, respectively. During 2007, the Board provided 471,189,700 gallons of water free of charge to agencies of the City of New Orleans. The value of this free water, at current rates, is \$830,568.71. The value of the sewerage charges is \$1,993,803.16.

The three revenue-generating public agencies - the New Orleans Museum of Art, City Park, and Audubon Park – continued to receive free water under “caps”, or maximum annual limits, established by the Legislature in 1982. The Museum of Art used 3,006,000 gallons or 452,200 above its annual “cap” of 2,553,800 gallons. City Park used 85,502,400 gallons or 149,821,000 below its annual “cap” of 235,323,400 gallons. Audubon Park used 96,055,500 gallons or 143,944,500 gallons below its annual “cap” of 240,000,000 gallons.

The Sewerage and Water Board and the Orleans Parish School Board (OPSB) reached an agreement effective July 1, 1992, whereby the schools would be charged for any water exceeding an allowance of six gallons per day, for 365 days per year, for each student enrolled and any other person regularly assigned to that campus or facility. The allowance was lowered to four gallons per day effective July 1, 1993.

Sources of Financial Data

Financial information included in this report is obtained from audited financial reports provided by the Board.

Summary of Findings

This section contains a summary of the financial operations of the Water, Sewerage, and Drainage Departments for the year 2007. Projections of future operations are also presented as a basis for determining the adequacy of present revenue sources to finance projected operating expenses and proposed capital program costs of the respective departments.

The statistical data maintained by the Board includes the compilation of detailed information on water sales and revenues. Information provided for 2007 includes a summary of the number of bills issued, billed volume, and revenues by customer class for both the Water and Sewerage Departments.

Under the current budget code system, costs are identified by general functional categories. Supplemental accounts are used for internal purposes to identify the cost in each functional category that is incurred for personal services, services and utilities, material and supplies, replacement and maintenance, and other special charges.

Water Department

Water Revenue Bond Resolution Requirements

Sewerage and Water Board financial operations for 2007 have complied with the requirements set forth in the 1998 and Supplemental Water Revenue Bond Resolutions. In July of 2006, the Board entered into a cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State’s Gulf Opportunity Tax Credit Bond Loan Program to assist in

payment of debt service requirements from 2006 through 2008. As of December 31, 2007, \$64,659,977 of the \$77,465,247 available to the Board had been borrowed. As a result of this agreement, the Board's 2007 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2007.

Summary of 2007 Operations

Based upon a tabulation of water bills rendered during the year, the Water Department provided water service to an average of 113,513 regular billed customers and 874 governmental accounts, the latter of which are served without charge. According to the December 31, 2007 Comprehensive Annual Financial Report, of the 51,587.8 million gallons of water pumped by the Department during the year, 13,582.3 million gallons were sold, 471.2 million gallons were metered to customers without charge, treatment plant process water totaled 351 million gallons, and unmetered uses accounted for the remaining 37,183.3 million gallons. Unmetered water uses include fire protection; flushing streets, sewers, and drains; chlorinating and flushing new water mains; construction of streets; Sewerage and Water Board plant uses; and unaccounted for system losses.

The total revenue from water sales, delinquent fees, interest income and other income increased approximately 8 percent from \$37,494,628 in 2006 to \$40,394,163 in 2007. Operation and maintenance expenses (excluding claims paid) increased from \$41,785,046 in 2006 to \$58,572,242 in 2007. Adding claims reflecting a credit of \$48,055 leaves an overall net deficit of \$18,130,024, excluding depreciation, from 2007 operations.

Ability to Finance Future Operations and Proposed Improvements

A summary of projected financial operations of the Water Department for the period 2008 through 2012 is shown in Table 11 of the report. Revenues shown on Line 1 of Table 11 are based on rates that became effective November 1, 2007. A *Report on Revenue Requirements, Costs of Service and Rates for Water Service* was issued in April of 2005. The series of revenue increases proposed in that study were approved by the City Council on October 4, 2007 and are shown on Lines 2 through 6 of Table 11 with the exception of the first increase which went into effect November 1, 2007. It is anticipated that the Water Department will continue to maintain a deficit balance in the operating fund through 2012 as shown on Line 30 of Table 11.

Because additional revenue bonds cannot be issued at this time due to the debt service coverage tests shown in Table 11, issuance of Bond Anticipation Notes (BANs) is required to fund the adopted capital program. Proceeds from issuance of BANs is shown on Line 33 of Table 11. Interest paid on projected BANs is shown on Line 23, costs associated with the

issuance of BANs are shown on Line 42, and redemption of the BANs, if any, is shown on Line 44.

The Board has adopted an aggressive plan to help stimulate the collection of revenue which is based on reestablishing delinquent processes that had been suspended since Hurricane Katrina. As a result, the Board estimates that approximately \$3.1 million will be recovered from delinquent accounts in 2009. Additionally, the Board is committed to lowering operating expenses by eliminating overtime by 25% - 35%, initiating a hiring freeze for all non-essential positions, and eliminating all discretionary spending. Finally, the Board has overhauled its vehicle policy for work and take home vehicles which is anticipated to reduce motor fuel and fleet maintenance expenses by about 25%. With continued enforcement of the new policies, the Board anticipates increasing revenues and decreasing costs, therefore, reducing the projected deficit in future years.

Sewerage Department

Sewerage Service Revenue Bond Resolution Requirements

Sewerage and Water Board financial operations for 2007 have complied with the requirements set forth in the 1997 and Supplemental Sewer Revenue Bond Resolutions.

Summary of 2007 Operations

Sewerage Department revenues for 2007 of \$71,882,162 increased approximately 6 percent from \$67,931,654 in 2006. Operation and maintenance expenses (excluding claims paid) increased from \$33,037,888 in 2006 to \$38,655,934 in 2007. After deducting claims of \$130,020, a balance of \$33,096,208 was available for capital related expenditures in 2007, unadjusted for depreciation.

Ability to Finance Future Operations and Proposed Improvements

A summary of projected financial operations of the Sewerage Department for the period 2008 through 2012 is shown in Table 21 of the report. Revenues shown on Line 1 of Table 21 are based on rates that became effective July 1, 2007. This table illustrates that the existing schedule of rates will generate sufficient revenue to meet projected operating and capital expenditures and required debt service coverage tests during the study period, as shown respectively on Lines 29 and Lines 47 through 49 of Table 21.

It is anticipated that the Capital Projects will be funded from the issuance of revenue bonds and BANs, as well as operating revenues. Revenue bond proceeds are shown on Line 31 of Table 21.

Drainage Department***Summary of 2007 Operations***

Total revenues received from all sources including interest income and two-mill ad valorem tax receipts totaled \$46,274,316 in 2007, an increase of approximately 23 percent from \$37,695,186 reported for the same sources in 2006. Total operation and maintenance expenses increased about 15 percent from \$23,268,254 in 2006 to \$26,713,708 in 2007. After adding claims reflecting a credit of \$2,530,930, a balance of \$22,091,538 was available for capital related expenditures in 2007, unadjusted for depreciation.

Ability to Finance Future Operations and Proposed Improvements

An analysis of financial operations projected for the Drainage Department for the period 2008 through 2012 is summarized in Table 31 of the report. Revenue from the three-mill, six-mill, and nine-mill ad valorem taxes may be used for operating expenses, debt service, and capital expenditures.

The analysis indicates that current revenue sources are adequate to meet operation and maintenance expenses and total debt service on the existing 1998 and 2002 bond issues for each year of the study period as well as debt service on new bond issues totaling \$400,000,000. The limits on bonds that can be outstanding under the 6 and 9 mill levies were removed by the State Legislature in 2003.

Other Findings

The Board's analysis of power purchased and produced is shown in the supplemental section of the 2007 Comprehensive Annual Financial Report. In 2007, approximately 81.7 million kilowatt hour (kWh) of power was purchased and 39.4 million kWh of power was generated.

On a unit cost basis, the average cost of purchased power has increased over the past five years from about 7.23¢ per kWh in 2003 to about 14.0¢ per kWh in 2007. During the same period, the Board's unit cost for generated power has increased from about 28.2¢ per kWh to about 30.1¢ per kWh. The cost of Board generated power is almost 2.2 times higher than that of purchased power. The cost of fuel to generate power in 2007 amounted to approximately 38.4¢ per kWh.

In conducting our analyses and in forming an opinion of the projection of future operations summarized in this report, Black & Veatch has made certain assumptions with respect to conditions, events, and circumstances that may occur in the future. The methodology utilized by Black & Veatch in performing the analysis follows generally accepted practices for such projections. Such assumptions and methodologies are summarized in this report and are reasonable and appropriate for the purpose for which they are used. While Black & Veatch believes the assumptions are reasonable and the projection methodology valid, actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that actually occur.

Subject to the limitations set forth herein, this report is based on information not within the control of Black & Veatch. Black & Veatch has not been requested to make an independent analysis, to verify the information provided to us, or to render independent judgment of the validity of information provided by others. As such, Black & Veatch cannot, and does not, guarantee the accuracy thereof to the extent that such information, data, or opinions were based on information provided by others.

Facilities Evaluation

Operation, Maintenance, and Reconstruction

This section summarizes the findings of the on-site inspections of Sewerage and Water Board (Board) facilities conducted by the Black & Veatch and Julien Engineering team (team) from May 12, 2008 to May 16, 2008. Site visits were conducted at the water and wastewater treatment plants, Carrollton power plant facilities, Central Yard facilities, and a majority of the above-ground water, sewer and drainage facilities to evaluate their condition and operating capabilities. Interviews were conducted with management and supervisory level Board personnel to explore the adequacy of current staffing levels and other perceived concerns.

Introduction

The Operations Division of the Board is comprised of four departments: Water Purification, Sewage Treatment, Water Pumping and Power, and Drainage and Sewerage Pumping.

The Carrollton and Algiers water purification plants, operated by the Board, purify raw water from the Mississippi River and supply potable water to the City's residents. The Carrollton plant currently purifies approximately 135 million gallons per day (mgd) of water for the East Bank of Orleans Parish. The Algiers Plant, which serves the predominantly residential West Bank portion of the parish, purifies about 13 mgd of water. The treated water from the two plants is pumped through approximately 1,610 miles of mains to the service connections within the City.

The Board also has two sewage treatment plants, one on the East Bank and one on the West Bank. The West Bank Sewerage Treatment Plant has a treatment capacity of 20 mgd (dry weather) and serves the west bank community of New Orleans. The East Bank Plant has a treatment capacity of 122 mgd (dry weather) and treats sewage from the East Bank community. Both plants were built in the 1970s. The West Bank Sewerage Treatment Plant has been upgraded to increase capacity to accommodate a growing population, and modifications to the East Bank Sewerage Treatment Plant prior to Hurricane Katrina to increase plant reliability. The plants are currently operated by Veolia Water.

Sewage is conveyed to the two treatment plants via a force main system. These systems receive their flow from gravity collection systems, consisting of several miles of lateral and trunk sewers and 84 electrically operated pumping and lift stations. Sewage pumping Stations A and D on the East Bank and Station C on the West Bank are attended stations. Sewage Pumping Station A houses a SCADA system that monitors the operation of all the other stations.

The Board also has responsibility for operating and maintaining the 24 major drainage pumping stations in New Orleans. Typically, the majority of those stations are manned. There are also 12 underpass stations, each with multiple pumps that are turned on automatically by rising water. These pumps are checked regularly and are monitored by field personnel during rain events.

The 25 cycle power plant operated by the Board provides power for portions of the water purification plant and about 60 percent of the drainage pumps' power needs. The following sections provided a summary of each operation department within the Board.

Staffing Issues

Approximately 80 percent of the Board's employees were rendered homeless by Hurricane Katrina and were forced to evacuate the City. Even though many of the employees have since returned, some of the Board's key operating divisions are suffering from lack of personnel. All operational areas except for Support Services have a need for additional staff.

In an effort to alleviate the personnel issues, the Board has suspended the domicile policy, which required the Board employees to live in the City of New Orleans. This will allow personnel hired by the Board to live outside the City and retain the right to receive promotions during the suspension and after the suspension expires. This action allows the Board to recruit from a wider base, and will provide employees with a greater sense of stability.

The City Council waived the domicile policy for a period of three years; however, it is hoped that on the third anniversary of Hurricane Katrina, the decision to permanently extend the domicile waiver is approved. The Planning and Budget Director indicated that hiring would not be a problem when a qualified employee was found. Many departments are actively recruiting from local college campuses, career job fairs, and trade schools.

Water Purification Plants

The Black & Veatch team was accompanied on the facility tours by the Superintendent of Water Purification operations. The Carrollton and Algiers water purification plants are currently operational and are producing water that meets the Federal Drinking Water Standards. Treatment systems at both plants are operational and functioning.

Carrollton Water Purification Plant

The Carrollton plant, which has a design capacity of 232 mgd, is purifying approximately 135 mgd of water for the East Bank of Orleans Parish. The water purification process at the plant consists of flocculation with a polymer and ferric sulfate, followed by pH adjustment with lime. The flocculated particles are allowed to settle in two sedimentation basins. The settled

solids are removed from the sedimentation basins by traveling mechanical rakes and discharged into the Mississippi river. The clarified water is disinfected by adding free chlorine. Anhydrous ammonia is then added to aid the formation of chloramines for residual disinfection. Additional settling time and disinfection contact time is allowed in the secondary settling basins. Further, the water is treated with sodium hexametaphosphate (for keeping the lime in solution) and hydrofluorosilicic acid (to add fluoride to the drinking water). The final step in the purification process is filtration where the water is filtered through rapid sand filters. The purified water is pumped out to the service areas.



Figure 1. Carrollton Water Purification Plant

As a result of the leaks in the water distribution system, the Carrollton plant is currently purifying approximately 135 mgd of water in spite of serving only about 65 percent of the pre-Katrina population. The additional water treated is driving up the operating costs. In addition, chemical costs are increasing due to higher transportation cost and demand for chemicals. At present, the Board is feeding all chemicals at appropriate dosages and maintains chemical storage at each site. Fluoridation resumed in July of 2007 and completed the transition back to full treatment of water in place prior to the hurricane. At times it has been difficult to get fluoride delivered due to limited supplies of the product. A couple days out of the month fluoride may not be fed to the process water, due to delivery problems, but this does not affect the quality of water as fluoride is purely for preventative public health purposes rather than required treatment.

Staffing is adequate at the plant for at least the next five years as indicated by the plant superintendent.

Problems persist in maintaining adequate pressure in the distribution system due to damage caused by the hurricane. Normal system pressure is 70 pounds per square inch (psi), but

has been limited to 65 psi to control the loss of water through leaks in the distribution system. The current water pressure is a significant improvement over last year. Last year had wide fluctuations in pressure and a consistent pressure of no greater than 60 psi.

Improvements completed over the previous year at the plant are as follows:

- The anhydrous ammonia tank has been rehabilitated.
- G4 sedimentation basin has been rehabilitated and is ready to be put back in service.
- G3 sedimentation basin has been cleaned and is currently having rake and sludge line components installed.
- Design for a new disinfection storage and feed facility is almost complete which includes a second chlorine and ammonia addition point for an emergency chlorine addition point.

Maintenance and/or improvement projects that the Board has planned on existing facilities include:

- Overhaul of sedimentation basin G3 is currently under way. A new flocculation drive system is to be installed. Also, improvements to the mono-rake system will increase the efficiency of sludge removal from the sedimentation basin.



Figure 2. Sedimentation Basin G3 Overhaul

- Head loss pressure cells are to be added to the filters to monitor pressure loss through the filters. Currently, approximately 10 percent of the filters have been retrofitted with head loss pressure cells.
- A hydraulic leak between sedimentation basin L4 and chlorine contact basin C5 is to be investigated and rectified; however, this cannot be done until the other

sedimentation basins are back in service. As a consequence of the leakage, chlorine contact basins C5/C6 are out of service.

- Improvements to flow measuring system.
- A second sludge line to the river is currently in the design phase. This will add redundancy and flexibility to the operations.
- Repairs to the L4 flocculation equipment and mono-rake system.
- Resumption of the filter rehabilitation program which had been suspended due to severely limited funds.



Figure 3. Filters at Carrollton

Algiers Water Purification Plant

The Algiers plant has a design capacity of 40 mgd. The purification process at the plant is similar to that at the Carrollton facility, utilizing the same chemicals with a slightly modified application scheme in their upflow clarifiers.

Currently, the plant is purifying approximately 10 to 13 mgd of water and is serving the predominantly residential West Bank portion of the Parish.



Figure 4. Algiers Water Purification Plant

The facility has also purchased a sodium hypochlorite generation system, which is currently being installed. Other improvements needed or ongoing at the plant include the following:

- The SCADA system is out of service and is impacting monitoring capabilities at the plant. Currently, the system is being upgraded and should be repaired in the near future.
- Troughs in the sedimentation basins require cleaning.
- The plant staff has discovered sediment in the bottom of the finished water storage tanks. The tanks should be taken out of service one at a time and cleaned, disinfected, and put back in service.
- The ferric system will be moved from the River Intake Station to the plant site.
- The circular sedimentation basins require some minor repairs to the flocculation drives and corrosion protection.

Increased staffing is required to properly maintain the plant. Hurricane damage at the Algiers facility was limited to roofing and window damage. Operating equipment was not affected.

Water Quality Laboratory at the Carrollton Plant

The water quality laboratory conducts daily analyses of the river water quality and purified water. Water samples from the distribution network are also analyzed regularly. The lab continues to meet the mandated analytical requirements of the water plants and is certified by the Louisiana Department of Health and Hospitals for analysis of coliform bacteria.



Figure 5. Water Quality Laboratory

In addition to coliform analysis, the lab also collects samples for protozoan analysis. Other regular analyses include hardness, turbidity, fluoride, ammonia, pH, alkalinity, and chlorine residual at different stages of treatment. The solids are analyzed for total suspended solids and total dissolved solids concentrations. River water and finished water samples are analyzed for volatile organic compounds.

The lab continues to maintain its involvement in the Early Warning Organics Contamination Detection System (EWOCDS) run by the State DEQ, although, several of the upstream stations have been unreliable and the State of Louisiana has underfunded the program. Monitoring stations connected by telecommunications notify DEQ if any of the 60 listed pollutants are detected in the river water samples. The DEQ disseminates the information to the program participants, allowing an early warning of possible problems. The EWOCDS equipment is maintained at all participating locations by the DEQ and the program participants provide manpower to collect and run the samples.

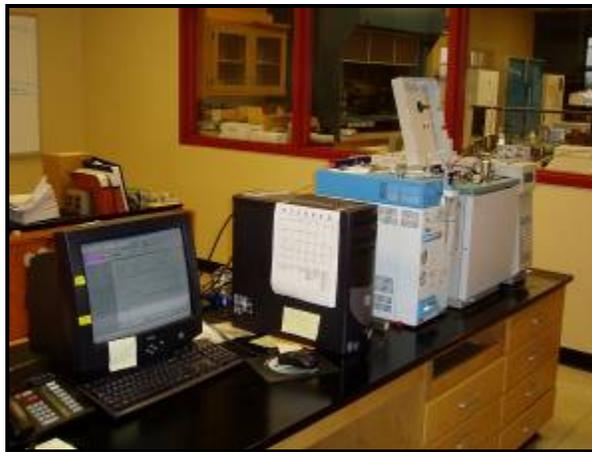


Figure 6. EWOCDS Equipment

Currently, the laboratory is staffed with one microbiologist, two chemists, one technician, and two sample collectors. Below market salaries have made it difficult to hire and retain qualified staff for the lab.

Water Pumping and Power

The primary function of the Water Pumping and Power department is steam production and the generation of 25 Hertz power. The facilities at the Carrollton power plant include three steam turbines and one gas turbine for a total theoretical capacity of 61 megawatts (MW). The steam required for the turbines is generated in the five boilers that remain from the original six (boiler 2 has been removed and a new boiler is being installed to replace it) with a total capacity of 650,000 pounds of steam per hour.

The generating station at the Algiers facility is capable of generating 60 cycle power using diesel generators. The facility can generate enough power to support operations at the Algiers plant and one drainage pumping station. The station is also capable of performing a frequency change to the 25 cycle power supplied from the Carrollton power plant.

At present, total capacity of the Carrollton power plant is 53 MW. Turbine 4 was repaired, but at a reduced capacity of 12 MW rather than the rated capacity of 20 MW. Turbine 4 will be used in emergency applications only. A new Boiler No. 2 is currently being installed and is expected to be commissioned by the fall of 2008.

Additional work at the Carrollton power plant includes a new distribution pipe installation at the power plant, and currently the local power company is designing a new high pressure natural gas line which will allow the power plant to eliminate the need for the gas compressors located at the power plant. Of the two steam-driven distribution pumps located at the power plant, one is in the process of being reconditioned, and the other is scheduled to be reconditioned when funds are available.

All roof damage has been repaired at the main Carrollton power plant although some damage is still noted at the West Bank Power Control building and River Station No. 1. All the pumps at the New River Station have been reconditioned and are in service.

The basement of the Carrollton power plant was flooded when the levee system failed, requiring the power plant to suspend operations for a brief period of time. Currently, the Corps of Engineers is in the planning stages of adding a levee system around the Carrollton Plant which would protect the power plant and other plant assets during a flood event. Another item the Corps of Engineers is considering is a new 15 MW, 60 Hertz gas turbine generator to supplement the current power available from Entergy to serve the plant and the raw water intake stations.

The Carrollton generating station lost part of the roof during the hurricane, causing water to seep through to the high voltage wires. The damaged section of the roof has been temporarily patched. Contracts have also been issued for roof repairs, but a shortage of funding is delaying the project.

All of the water intake and effluent pumping stations are currently operational. Typically, the Claiborne pumping station and the two steam driven turbine pumps are adequate for pumping, with the Panola Station serving as a backup. However, due to a pump out of service at the Claiborne station system, the Panola pumping station is currently in operation. The intake pumps suffered damage from the hurricane flood waters, but have been repaired.

The water pumping and power department had 71 employees prior to the hurricane. Currently, only 54 positions are filled, requiring staff to work some overtime. The pumping

stations and the power plant are back to pre-Katrina standards and continue to operate effectively.

Sewerage Treatment Plants

The team visited both the East Bank and West Bank wastewater treatment plants, currently operated by Veolia Water. The team was accompanied by the principal engineer of the Board's operations department on the tour of the East Bank treatment plant, while the tour of the West Bank facility was attended by a plant operator. Both the treatment plants were operational at the time of the site visits and were meeting the discharge limits according to the treatment plant personnel.

East Bank Wastewater Treatment Plant

The East Bank facility has a treatment capacity of 122 mgd (dry weather). The pre-Katrina flows to the plant averaged 100 to 110 mgd. Currently, the plant is receiving approximately 100 mgd flow. The Board had planned to augment the treatment capacity of the existing plant by 65 mgd prior to the hurricane. The decision to increase plant capacity to 265 mgd during wet weather conditions has been delayed pending the repairs needed to the sewage collection and pumping systems and re-population of the city.

The treatment facilities at the plant include bar screens, grit removal, pure oxygen activated sludge system, final clarification, and disinfection. The solids generated during sewage treatment are thickened, dewatered in belt filter presses, and incinerated. At this time, the incinerators are out of service; therefore, the belt presses are processing solids and the dewatered solids are trucked to the landfill.

The following list summarizes the findings at the plant:

- The lab functions are being done off site and the staff are occupying trailers.
- Damage to structures and equipment from salt water due to the hurricane. Most equipment has been repaired and is operational. Final clarifier No. 4 is currently under repair and will be finished within six months. Cracks in the deck of the activated sludge tanks have been repaired.



Figure 7. Repaired Cracks in Deck

- Extensive damage to incinerators. Both the Fluid Bed Incinerators (FBI) and Multiple Hearth Incinerators (MHI) were damaged by Hurricane Katrina. The FBI installation is scheduled to be completed by July 2008 and will be commissioned by September, 2008. Following the commissioning phase, there will be a six-month compliance testing period. The Board is currently researching a beneficial reuse process to act as a back-up to the FBI. No specific process has yet been identified and the Board will continue to landfill biosolids until an alternative is identified and implemented.
- Currently, two of the return activated sludge pumps are out of service at the South Pump House. Repairs are underway and should be completed and the pumps reinstalled soon.



Figure 8. RAS Pumps Out for Repair

- The grease tank that collects grease from the final clarifier sumps is out of operation pending funds from FEMA as the equipment was damaged during the hurricane. Currently, the grease is pumped to the head of the plant. A significant amount of scum was observed at the final clarifiers. The current plan is to install two rotary drum systems for grease removal. This project is in design and will be installed within the next year. In addition, chemical's are currently being added to try and help eliminate the grease, but to date this process has had marginal success at reducing grease in the system.



Figure 9. Grease Tank Out of Service

- At present a Request for Proposals has been released to purchase and install an oxygen production facility at the plant. Oxygen is currently trucked in at significant cost and the new oxygen plant will reduce the cost of oxygen to the plant. The plant uses approximately 30 tons of oxygen a day.
- Water drainage from the air conditioning units are running off the roof of the solids handling building and causing corrosion to the side of the building. Downspouts are to be installed to eliminate the problem.
- The plant control room is complete and the FBI controls will be completed within the month. Once the FBI control system is finished the entire plant SCADA system will be complete.

- New brush systems to keep the weirs clean on the final clarifiers have been installed. A service contract has been instituted with the manufacturer of the brush system to maintain and replace the brush system.
- Two new belt filter presses with a gravity zone are to be added to the plant. Two existing belt presses will continue to be used.

At present the influent TSS and BOD concentration are approximately 120 milligrams per liter (mg/L) and 90 mg/L, respectively. This is significantly lower than normal concentrations, which is probably the result of a significant increase in the amount of inflow and infiltration in the collection system following the hurricane requiring treatment at the plant. Effluent quality has been adequate over the year, however the plant has experienced one TSS violation within the last year due to a mixer mechanical problem which was quickly rectified.

West Bank Wastewater Treatment Plant

The West Bank facility has a treatment capacity of 20 mgd (dry weather). Currently, the plant is receiving approximately 10.5 mgd flow. The West Bank treatment facility consists of bar screens, primary clarifiers, trickling filters, final clarifiers, and disinfection. Primary and secondary solids are co-thickened in a gravity thickener and hauled to the East Bank facility for further dewatering at the belt filter presses.

Following is a summary of findings for the West Bank treatment plant:

- Effluent pump #3 was out of service, but was scheduled to be put back in service within two days.
- New variable frequency drives have been installed for the effluent pumps.
- A new solids treatment building and belt filter press is currently at 30 percent level of design for the plant.
- A new sodium hypochlorite system including tanks and pumps is at 50 percent level of design.
- A new chemical (BioCat) is used instead of hydrogen peroxide for odor control in the collection system. A significant benefit has been realized in the effluent quality of the trickling filter plant since the new chemical does not adversely impact the biofilm in the trickling filter, although the chemical cost is approximately 20 percent higher than using hydrogen peroxide.

The monthly average TSS and BOD influent concentration are approximately 150 mg/L and 150 mg/L, respectively. Treatment at the plant is very good for a trickling filter plant as the monthly average effluent TSS and BOD concentration has been approximately 12 mg/L and 10

mg/L, respectively. The plant capacity is adequate for the long term needs of the area. Staffing levels are adequate and the facility and grounds are well maintained.

Sewage and Drainage Pumping Stations

The sewage pumping and lift stations convey sewage through the gravity and force main systems to the East Bank and the West Bank wastewater treatment plants.

Damage was extensive to the sewer pump stations within the East and West Bank due to the hurricane. It is anticipated the repairs to the sewer stations will be paid for by FEMA funding. In order to receive these funds, the stations have to be repaired to pre-Katrina conditions. Most stations are located below ground and the rehabilitated stations will be vulnerable to flooding. The Board wishes to elevate most of the stations so that this does not occur again. The Board is currently in negotiations with FEMA to elevate the stations or perform other flood mitigation measures at the station with the funds that will be provided by this agency. This would ensure continuous operations of all stations during flooding events. Some of the buildings also suffered structural damage. Repair work on buildings is almost complete.



Figure 10. Repaired Pumps

The Board has issued emergency bids for generators, portable diesel pumps, automation, and SCADA panels for the damaged stations, the costs of which will be reimbursed by FEMA.



Figure 11. Portable Pumps & Generators

Maintenance personnel estimate about 5 years will be required to have all the pumping stations back online. The estimated cost for all sewage pumping station repairs is approximately \$80 million which will be paid by FEMA. It is important to note that FEMA will only be paying for damage that was due to Katrina. As contractors are repairing mechanical equipment at the stations, more problems are being uncovered that are potentially due to the Board's inability to maintain the stations before the storm. The Board and FEMA are having ongoing discussions to determine if the mechanical issues are storm related and who will be responsible for paying for any repairs that are not a result of Katrina flooding.

The Board also has responsibility for operating and maintaining the 23 drainage and 12 underpass pumping stations in New Orleans. The drainage stations also suffered significant damage from the hurricane related flood waters. Most motors have been rewound and are in service within the drainage stations.



Figure 12. Drainage Station Pumps

The Corps is providing 100 percent funding, valued at \$40 million, for electrical, mechanical and structural upgrades to the drainage stations. This does not include needed work at the underpass drainage stations. The Board has also received a commitment from the Corps to move drainage stations 3, 6, and 7 to Lake Pontchartrain, which would allow easier and more efficient pumping of water to the Lake. Currently, temporary pumping stations have been installed at the Lake. The estimated cost for relocating the stations is \$150 to \$200 million per station and is to be paid by the Corps.

The team visited 82 sewage pumping and sewage lift stations and 23 drainage pumping stations. A summary of the sewage pumping stations and the drainage pumping stations visited by the team is in Appendix 1.

Maintenance

The facility Maintenance Department provides major electrical and mechanical maintenance for all Board facilities except the contractor operated wastewater treatment plants. The Maintenance Department has the specialized equipment to maintain the plants' process equipment. Automated lathes and mills provide the department with the ability to fabricate parts when replacement parts are excessively expensive or no longer available. However, lack of an adequate number of trained personnel since the hurricane is undermining the capabilities of the department.

The Maintenance Department had 128 authorized positions in 2005 of which 88 were filled prior to Katrina. Currently, only 40 positions are currently staffed due to retirements and attrition. To compensate for the limited work force, more work is being contracted out than before to General Electric (GE) and other contractors. Now the department is facing a situation where they do not have enough personnel to supervise or assist contractors. The department is actively recruiting at job fairs and trade schools to hire additional workers to staff the department.

No major equipment was lost in the maintenance shop during the hurricane. All maintenance equipment is well maintained and adequate to do the work in-house.

Engineering

The Engineering Department includes mechanical, electrical, civil, construction administration and inspection, drainage, and network engineering. The department administers major contracts throughout the City and coordinates with other agencies for the design and construction activities impacting Board maintained facilities. The Engineering Department was also in charge of overseeing the Sanitary Sewer Evaluation and Rehabilitation Program

(SSERP), a \$640 million program that was in place to upgrade facilities within the sanitary sewer network for the City prior to the hurricane.

Due to limited personnel, more work is being outsourced. As a result of the emergency nature of most of the work, contract approval had a quicker turnaround time of two weeks in 2007 compared to an average of two months before the hurricane. In recent months, contracts have begun to take longer to be awarded. Following is the status of some of the contracts administered through the Engineering Department:

- Emergency contracts issued for leasing and purchasing portable diesel pumps for the sewage pumping stations that sustained damage from the flood waters.
- A \$38 million contract put out and paid by the Corps for structural, mechanical, and electrical improvements to the damaged drainage pump stations. Work is ongoing at various drainage stations, although, the majority of the work has been completed.
- The contract for installation of the sodium hypochlorite generation system has been awarded and contractors are in the process of installing the system at the Algiers water treatment plant.
- Contracts issued for repairing roofs of non-critical facilities.
- A solids discharge line to the Mississippi river is currently in design and at present is 90 percent completed.
- Review of design for a sodium hypochlorite storage and pumping system at the Carrollton Water Purification Plant.
- Review of design for new belt filter presses at the West Bank Sewerage Treatment Plant.

To date, the Board has paid approximately \$16 million to GE for repairs to the drainage and sewage pumps and the power plant machinery, all of which will be reimbursed by FEMA.

Networks

The Networks Department is charged with maintaining the sanitary sewer system, the major drainage system, and the potable water distribution system.

The water distribution network that was damaged by uprooted trees and other debris during Katrina has still not been fully repaired. Consequently, the Carrollton plant is currently purifying approximately 120 mgd of water in spite of serving only about 65 percent of the pre-Katrina population. Service has been restored to all affected areas.

According to Board personnel, the biggest challenge in restoring normal operations at the water purification plants has been the detection of leaks in the distribution system. The Board,

with the aid of contractors, is currently conducting a block by block evaluation of the piping system to detect leaks. Leak detection has been more difficult on the East Bank, which was harder hit by the hurricane. The Board is exploring engineering approaches to isolate sections of the distribution network for better leak detection and has planned an evaluation of a leak detection system over a small area. In fact, bids have been opened to install the new leak detection system.

To date, all identified water main breaks have been fixed, but several underground leaks are yet to be located and repaired. Over 23,000 leaks have been fixed between July of 2007 and May of 2008.

Consultant Montgomery Watson Harza has inspected 50 percent of the sewer lines and has cleaned 15 percent of the collection system. A Phase II assessment will begin shortly to finish the inspections. The Board has plans to clean and inspect 25 to 30 percent of the sewer lines with closed-circuit television. All the manholes have also been inspected.

The water and sewer line inspections completed to date have primarily focused on areas that were under water after the hurricane. The West Bank and the Uptown areas have yet to be inspected, but the Board personnel consider the areas inspected to be a good representation of the remaining sections. The projected costs for repairs to the water distribution system are \$10 to \$20 million. The Board has also made a payment of \$3 million for the estimated 50 percent of the sewer system that has been inspected.

The estimated time frame for repairing the water distribution network is 2 to 3 years. The sewer system is expected to take approximately 5 years to get back to pre-Katrina condition.

The Networks Department is also coordinating efforts for checking operation, painting and lubricating the fire hydrants with the Board supplying the paint and grease to the contractor. All the hydrants in the City have been assigned an identification number and have been mapped. The program was started four years ago and requires the 16,500 fire hydrants in the database to be inspected every two years.

Only 25 percent of the fleet needed for the Networks Department has been restored. The inspection of water and sewer lines has been hampered due to a lack of equipment. The department has contracted out paving due to the large work load and lack of equipment. Over 3,500 paving projects have been completed since July 2007 by contractors.

Networks is one of the few departments which has most of its field personnel back after the hurricane although absenteeism is a problem due to personnel trying to rebuild and restore their personal lives after the hurricane. The department has lost most of the data management personnel and this has hampered efforts in prioritizing work orders and working efficiently.

Support Services

Fleet Management

The Board has 526 pieces of rolling stock, which includes trucks, backhoes and sewer cleaning equipment. Approximately, 140 pieces are at least 13 years old and will be in need of replacement in the next few years. The Board has also recently purchased 226 pieces of equipment. In addition, there are approximately 100 pieces of heavy equipment worth \$6 million on order as part FEMA monies to replace equipment. An additional \$2 million of FEMA monies will be used to purchase equipment in the coming year. The new equipment includes vacuum trucks, trailers, crew trucks, backhoes, etc. The available equipment is being assigned to the various departments based on need.



Figure 13. New Equipment

Based on the information obtained from the Fleet Manager, it is expected to take up to two years to acquire all the equipment needed for normal functioning of the Board maintained facilities.

The Department has 145 total staff on their payroll and is adequately staffed based on the current needs of the Board. Large mechanical work and some ground maintenance functions have been contracted out to other firms. In particular, the ground maintenance contract is for 2 years with an option for a third year. After the contract expires the Board expects to resume performing those functions in house.

Environmental Affairs Department

The Environmental Affairs Department oversees the consent decree and all administrative orders. They also undertake special projects for the Executive Director's office and report sewer bypasses and overflow to Region 6 Environmental Protection Agency. Presently, the department is in the process of transitioning from its role of emergency response due to the hurricane to remediation of systems.

Some of the activities being undertaken by the department include:

- Site restoration of trailer parks located on Board property since the trailers have been removed.
- Taking the lead among other agencies to ensure wastes are disposed of in an environmentally friendly manner and assisting State agencies with environmental clean up.
- Providing technical assistance to the pumping station crews.
- Permit compliance in water, wastewater, solid waste, and underground storage tanks.

The department is short on personnel, mostly clerical staff and supervision. Compared to pre-Katrina staffing, the department has seven less positions that account for one half of the total strength required.

Status of the Consent Decree

The Board is currently complying with the EPA Region 6 and Department of Justice Consent Decree that requires cessation of unauthorized discharges and the development of a schedule for repairs to both the collection system and the treatment plant. However, the Consent Decree has been temporarily suspended under the force majeure terms.

The Board is currently negotiating the deadline to prepare a plan and schedule for achieving compliance with the Consent Decree at pre-Katrina Levels.

A phased approach has been suggested by the EPA in response to the Board's claim for unanticipated delays and violations of the Decree due to the hurricane. Some of the provisions outlined in the document include:

- The quarterly reporting requirements have been submitted regularly.
- The Sewage Overflow Action Plan (SOAP) described in section XIII of the Decree requires the Board to respond to all reported sewage overflows and bypasses within four hours of receiving the call. The EPA acknowledged the fact that it would be difficult to

respond to all notices within four hours with the reduced workforce. Hence, the Board will not be deemed to be in violation of the SOAP and no penalties will be assessed as long as the Board responds to notices of unauthorized discharges within 24 hours.

- No penalties will be assessed for not complying with the operational requirements of the fluid bed incinerator, as outlined in Paragraph 15 of the Decree. The fluid bed incinerator is currently not in operation and will be commissioned by September 2008. Following the commissioning phase there will be a six month compliance testing period.
- The decision on the final completion date in Paragraph 49 of the decree, for which the Board had requested an 8-year extension, has been postponed until more information is obtained and a new schedule for compliance is developed.

Summary of Findings

- The Board has a good understanding of the existing condition of the water and sewage treatment facilities and is aware of the immediate needs to restore facilities to pre-hurricane operating condition. In most cases the water treatment plants and wastewater treatment plants are back to pre-Katrina status or better.
- The distribution network and the sanitary sewer collection system present the two biggest challenges and are being addressed in a systematic manner with the aid of contractors. It has been stated that it could take 3 to 5 years for the Board to restore the water distribution network and the sewage collection system to pre-Katrina condition.
- The Board is currently utilizing portable diesel pumps at some of the sewer pump stations due to the hurricane damage.
- The Corps of Engineers has installed temporary drainage pumping systems at Lake Ponchartrain, to assist in the removal of additional water from the City of New Orleans during a flood. Ongoing discussions are taking place for permanent drainage stations.
- Even though a majority of the employees who evacuated for Katrina have since returned, some of the key operating arms of the Board are hampered by lack of adequate numbers of personnel. In an effort to alleviate the personnel issues, the Board has suspended the domicile policy, which required Board employees to live in the City of New Orleans. This will allow personnel hired by the Board to live outside the City and retain the right to receive promotions during the suspension and after the suspension expire.

- The Board is still in negotiations on most provisions of the Consent Decree.
- The Board received a \$400,000 grant by the Delta Regional Authority for initial feasibility of wetland wastewater assimilation for the East Bank Sewerage Treatment Plant. This feasibility study is complete. A follow up to the successful feasibility study is a \$10 million pilot study awarded by the Coastal Impact Assistance Program to the Board.

Water Department

Adherence to Water Revenue Bond Resolution Requirements

In 1998, the Sewerage and Water Board sold \$16,000,000 of Water Revenue Bonds. The sale of these bonds, as well as the 2002 Series Water Revenue bonds, has obligated the Board to fulfill the covenants of the current bond resolutions. The covenants are designed to protect the interests of the bond holders. Particular covenants of the Board in the General Water Revenue Bond Resolution pertain to the power to issue bonds and the pledge of system revenues; the extension of payment of bonds; the establishment of rates and charges; the sale, lease, and encumbrance of the system; the operation, maintenance, and reconstruction of the system; insurance; the preparation of an annual operating budget; the preparation of the capital improvements budget; the maintenance of accounts and reports; further assurances; and the issuance of additional bonds. The Requirements of the 1998 General Water Revenue Bond Resolution and Supplemental Resolutions adopted on August 21, 2002, (hereafter collectively called the General Resolution) are discussed in this section.

In July of 2006, the Board entered into a cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2007 through 2008. As a result of this agreement, the Board's 2007 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2007. Accordingly, the Board is in compliance with the 1998 General Water Revenue Bond Resolution and subsequent amendments.

Powers as to Bonds and Pledge

The General Resolution gives the Board the power to issue bonds and to pledge the revenues according to the resolution. "The revenues and other monies, securities and funds so pledged are and will be free and clear of any pledge, lien, charge or encumbrance thereon with respect thereto prior to, or of equal rank with, the pledge created by the resolution except to the extent expressly permitted hereby. The Board shall at all times, to the extent permitted by law, defend, preserve and protect the pledge of the revenue and other monies, securities and lands pledged under the resolution and all the rights of the bondholders under the resolution against all claims and demands of all persons whomsoever."

The Extension of Payment of Bonds

The Board is obligated not to extend the maturity of the bonds. The Board still has the right to issue refunding bonds because the issuance of refunding bonds shall not constitute an extension of maturity of the bonds.

The Establishment of Rates and Charges

The General Resolution obligates the Board to establish and maintain rates and charges at levels sufficient so that total revenues over and above the amount required for operation and maintenance of the system be at least one hundred thirty percent (130%) of the bond debt service requirement.

The Board must engage a Consulting Engineer to annually review the adequacy of the rates and charges to satisfy the requirements of the resolution for the next succeeding year.

In addition, "...the Board shall not... furnish or supply any facilities, services or commodities afforded by it in connection with the system free of charge (except as required by law). The Board will promptly enforce in the manner and to the extent provided by law the payment of any and all delinquent accounts except when the Board determines that such enforcement is no longer practicable or economically justified."

The Sale, Lease, and Encumbrance of the System

The General Resolution requires that, with exceptions, ". . . no part of the System shall be sold, mortgaged, leased (with the Board as lessor) or otherwise disposed of or encumbered." However, the Board may sell, mortgage, or lease any property that has become worn out or that is not useful.

The Operation, Maintenance, and Reconstruction of the System

The Board is obligated to ". . . operate, or cause to be operated, the System properly and in a sound, efficient and economical manner and shall maintain, preserve, and keep the same or cause the same to be maintained, preserved, and kept in good repair, working order and condition, and shall from time to time make, or cause to be made, all necessary and proper repairs, replacements and renewals so that the operation of the System may be properly and advantageously conducted . . ." The Board must reconstruct damaged or destroyed parts of the system, except in those cases where the market value of that part of the system is more than \$100,000 and a Consulting Engineer certifies that the abandonment is economically justified and is not prejudicial to the interest of the bond owners and that failure to reconstruct the part will not impair the Board's ability to comply with the requirements of the rates and charges covenant in the current or any future fiscal year. The Board is actively engaged in repairing or replacing facilities damaged in 2005 by Hurricane Katrina.

Insurance and Condemnation

The Board agrees to ". . . keep all property which is a part of the System and which is of an insurable nature and of the character usually insured by operating systems similar to the Board insured against loss or damage by fire and from other causes customarily insured against and in such relative amounts as are customary. The Board will also at all times maintain insurance against loss or damage from such hazards and risks to the persons and property of others as are usually insured against by those operating systems similar to the Board."

The Board also agrees that all insurance proceeds shall be applied to the restoration of the lost or damaged facilities, unless the Board determines not to replace the facilities according to the previous covenant. Any excess proceeds not applied to the reconstruction of facilities or remaining after the work is complete shall be deposited into the Water System Account.

The Board may also elect to insure itself if it determines that any policies required are not reasonably obtainable or may not be obtained at a reasonable cost.

The Board carries fire and extended coverage insurance on buildings connected with the treatment and supplying of water, and the collection and treatment of sewage. In addition, the Board carries the generally accepted coverage for water and wastewater utilities. This coverage consists of personal liability and property damage liability coverage; forgery, money, and securities dishonesty and disappearance coverage; and employees' faithful performance bonds. The Board also carries coverage on vehicles and equipment used in the operation of the water, sewerage and drainage systems. A summary of the insurance program of the Board is shown in Table 1.

The Board is self-insured for worker's compensation and comprehensive general liability. In addition, the Board maintains a self-insurance program of hospitalization benefits. Anticipated expenditures are budgeted annually.

The Preparation of an Annual Operating Budget

The Board agrees to prepare and adopt an annual operating budget not less than one day prior to the beginning of each fiscal year. The Board may adopt an amended or supplemental budget from time to time but not more than once a month. The Board is required not to ". . . incur aggregate Operating Expenses in any Fiscal Year in excess of the aggregate amount of Operating Expenses shown in the Annual Budget as amended and supplemented for such Fiscal Year except in case of emergency or as required by law."

The Board agrees that the ". . . amounts expended by the Board in any Fiscal Year for Current Expenses shall not exceed the reasonable and necessary amounts thereof and such amounts so expended in any Fiscal Year from Revenues shall not exceed the amounts provided

therefore in the Annual Budget for such Fiscal Year as amended and supplemented from time to time."

The Preparation of the Capital Improvement Budget

The Board is required to prepare a proposed program of Capital Improvements for the current and next two fiscal years prior to the beginning of each fiscal year. The program must identify the capital improvements to be carried out, the estimated costs of the improvements, the period of construction, and a proposed budget for the capital improvements to be undertaken in the first fiscal year of the budget period. The capital improvements budget is to be prepared showing projected quarterly requirements and can be amended or supplemented from time to time, but not more than once a month for the fiscal year in progress.

Employment of Consulting Engineer

The General Resolution requires the Board to employ a Consulting Engineer no later than the last day of each third full fiscal year following the delivery of the initial bonds to report on the properties and operations of the System. However, any report prepared by the Consulting Engineers for the issuance of additional bonds within a three year period will satisfy this requirement.

The Maintenance of Accounts and Reports

The Board is required to ". . . maintain its books and accounts in accordance with generally accepted accounting principles and in accordance with such other principles of accounting as the Board shall deem appropriate."

The Board is also required to file with the Board of Liquidation, City Debt an annual report with financial statements audited by and containing the report of a nationally recognized independent public accountant. The auditor's report is to include a statement that during their examination, made in accordance with generally accepted auditing standards, nothing came to their attention that would lead them to believe that a default had occurred under the resolution, or to state the nature of the default.

The Board engaged the firms of Postlethwaite & Netterville and Bruno & Tervalon to comply with this covenant. Financial reports with the Accountants' Certificate have been furnished to the Board of Liquidation, City Debt and have been reproduced for public distribution. In 20 of the past 22 years, the Government Finance Officers Association (GFOA) has awarded to the Board the "Certificate of Achievement for Excellence in Financial Reporting" for their annual financial reports.

Issuance of Additional Bonds

Additional bonds may be issued, but only after certain conditions have been met. These conditions are described in the following paragraphs.

The Board must deliver to the Board of Liquidation, City Debt a certificate of an authorized officer stating that the Resolution has not been repealed, and a certified copy of every supplemental resolution previously adopted by the Sewerage and Water Board.

The Board must deliver to the Board of Liquidation, City Debt the documents and monies, if any, required by this resolution and any applicable supplemental resolution.

The Board must provide to the Board of Liquidation, City Debt a certificate of an authorized officer stating that as of the delivery of the additional bonds no event of default has occurred.

The Board of Liquidation, City Debt is required to have a certificate of an authorized officer stating that for the two full fiscal years prior to the year of issuance, the average net revenues were equal to at least (1) the amount required by Louisiana law, and (2) 110 percent of the average bond debt service requirement on all bonds outstanding plus the average bond debt service requirement on the additional bonds.

The Board must provide to the Board of Liquidation, City Debt a certificate of the Consulting Engineer stating that projected net revenues for each of the five fiscal years following issuance of the additional bonds will be at least 130 percent of the debt service reserve fund requirement.

2007 Water Department Operations

Funds for the operation and maintenance of Water Department properties were derived from sales of water, delinquent fees, plumbing inspection and license fees, charges for disconnections and reconnections, and from interest earned on available funds. Analyses of the 2007 Water Department operations are discussed in the following paragraphs.

Water Use

According to statistics found in the December 31, 2007 Comprehensive Annual Financial Report, during the year, 51,587,770,000 gallons of water were pumped by the Water Department. Water sales accounts for 13,582,299,100 gallons; 471,189,700 gallons were metered to City departments without charge. Metered treatment plant process water totaled 351,007,200 gallons. The remaining 37,183,300,000 gallons resulted from unmetered uses, such as fire protection; flushing streets, sewers, drains, and gutters; and unaccounted for system losses.

Number of Customers

Table 2 presents a summary of the historical and projected average number of treated water customers for the period 2003 through 2011. Based on year-end billing summaries, the number of monthly billed customers during 2007 averaged 113,513 compared with 124,027 for 2006. In 2007, the Board began an aggressive campaign to close accounts that reflected no recent water usage and/or no recent payments. Customers were notified in writing in August of 2007 that accounts would be closed if there had been no payment received for at least 4 months. Beginning in December 2007, Board staff worked overtime to review each account, delete unwarranted charges, and close the accounts. Due to personnel constraints, the Board did not remove the meters at the time the accounts were closed. Therefore, customers were able to have meters turned on and consume water without reactivating the account. In October of 2008, the Board hired a contractor to begin removing the meters associated with closed accounts. As a result, many customers have requested to have their water services restored and are opening new accounts. Based on the daily counts of the number accounts opened and closed during 2008, it is projected that approximately 7,200 new accounts will be opened in 2009 as a result of the Board's actions. The projected number of customers assumes a 1 percent annual growth rate beginning in 2010.

In addition to regular customers, water is sold to construction contractors and other customers on an irregular basis. The Board, by law, also provides water service free of charge to certain municipal and public connections including the Board itself. In 2007 there were 874 connections in this group, compared with 920 for 2006.

Billed Water Usage

Table 2 also presents a summary of historical and projected treated water sales. Based on year-end billing summaries, a total of 13,927 million gallons of water sales were billed on a monthly basis in 2007, compared with a total of 12,592 million gallons in 2006. Projected water sales assume a growth rate of approximately 2.4 percent.

Operating Revenues

The 2007 schedule of rates for retail treated water service is presented in Table 3. The rates consist of monthly service charges, which vary by meter size, plus a 4-step declining block volume charge, with the exception of the first block, which is a life-line related charge. Current rates for flat rate fire service are also shown in Table 3. Separate rate schedules, not shown, are used for billing water sold to construction projects and other purposes.

A summary of historical treated water billings and other Water Department revenue is presented in Table 4 for the period 2003 through 2007. The historical revenues shown in Table

4 were developed from detailed records provided by Board Staff. Operating revenues are derived from charges for sale of water and delinquent fees. Sales of water in 2007 were \$36,198,631 which, when compared with \$33,718,910 for 2006, shows an increase of approximately 7.4 percent. Delinquent fee revenues were \$1,596,891 in 2007 which represent a significant increase over 2006 delinquent fees as a result of the Board's increased delinquent enforcement and collection efforts.

Non-operating Revenues

Also shown in Table 4, non-operating revenue of the Water Department includes interest earned on invested funds, and other income from miscellaneous sources. During 2007, non-operating revenue included \$800,236 of interest earned from the investment of available funds in the Water System Fund and the Water Revenue Bond Account and \$1,798,405 from other sources.

Operation and Maintenance Expenses

The Sewerage and Water Board uses a system of accounts for budget purposes which groups expenses by water system function. Under the present system of accounts, expenses are categorized under the general classifications of management and general, operations expenses, and other expenses. Management and general expenses include wages, materials and supplies, services, and other costs of the Executive Director, Deputy Director, Office of the Management Services Director, Personnel Administration, Finance Department, Information Systems, Purchasing Administration, Customer Services Department, and Legal Department. Operations expenses encompass the costs of source of supply, treatment, and delivery of potable water. Other expenses include such items as general insurance, outside services employed, social security, pension and medical insurance contributions, and miscellaneous expenditures.

Table 5 presents a summary of historical expenses as recorded under the present system of accounts by the Sewerage and Water Board. Expenditures in 2007 increased about 40.2 percent from 2006 expenditures and about 10.6 percent from 2005 expenditures. The largest increase from 2005 expenses is reflected in Payroll Related Expenses. In July of 2004, the Governmental Accounting Standard Board (GASB) released Statement 45 (GASB 45) concerning health and other non-pension benefits for retired public employees. As a result of GASB 45, the Board must set aside money to cover the cost of post-retirement benefits as opposed to funding the benefits on a pay-as-you-go basis. This liability is reflected in the 2007 operating expenses. Historical operation and maintenance expenses shown in Table 5 do not include the non-cash portion of Provision for Claims as recorded in the Comprehensive Annual

Financial Report. Estimates of future Water Department claims are included on Line 16 of Table 10.

Capital Budget and Expenditures

Capital expenditures of the Water Department include the cost of replacements and improvements to waterworks facilities, the water distribution system, and the Water Department pro rata share of power projects and general budget costs.

The Water Department's 2007 capital expenditures, exclusive of prorated interest expense, totaled \$18,277,171. The Water Department's capital improvement expenditures for the year are shown in Table 6.

Summary of Operations

The following tabulation shows a summary of the receipts and expenditures of the Water Department during 2007:

Total Revenues	\$40,394,163
Operation and Maintenance Expense	58,572,242
Claims	-48,055
Debt Service Payments	<u>0</u>
Revenue Primarily Available for Capital Expenditures (a)	-\$18,130,024

(a) Excludes depreciation.

Proposed Capital Improvement Program

Table 7 presents a summary of the projected major capital improvement program for the period 2008 through 2012. Table 7 is based on estimated improvement program scheduling and cost data taken from the Board's 2008 adopted Capital Budget and the 2009-2012 proposed Capital Program. The costs associated with CP 214, 215, 216, and 221 for 2008 through 2012 will be funded from FEMA reimbursements which is discussed in the next section. The five-year major capital improvement program costs are estimated to total \$110,184,000. About 93 percent of this amount, or \$102,104,000, is for recurring annual capital improvements, with the remaining \$8,080,000 for major improvements. The proposed routine annual capital expenditures for water system improvements and extensions include \$813,000 for the Water Department's share of power projects, and \$45,866,000 for its share of general budget items.

Ability to Finance Proposed Capital Expenditures

This section of the report analyzes the adequacy of projected revenues to finance the proposed capital improvements shown in Table 7.

Operating Revenues

Operating revenues of the Water Department consist of revenues from water sales. Projected operating revenues for the years 2008 through 2012 are shown in Table 8. These estimates reflect the rate schedule effective November 1, 2007 applied to the projected number of customers and water usage and are projected to increase, on average, about 2.9 percent per year throughout the study period.

Other Revenue Sources

Based upon past practices, the Water Department can expect to obtain revenues or funds from non-operating sources. These include interest earned on available funds, participation by others, house connection charges, fire connections, fire hydrant relocations, and various other income sources. Also, by Board policy, the Water Department receives one-half of the plumbing inspection and license fees currently projected at \$250,000 per year, and \$200,000 for three-mill revenue sharing.

Interest income from the investment of funds held for future use depends upon the level of water revenue available for investment and the amount of revenue accrued towards payment of future capital expenditures.

Participation by others represents payments made by developers and others; however, at this time there is no participation funds anticipated during the five-year study period.

Because of the size of the upcoming capital improvements, issuance of additional debt will be required to minimize future rate increases.

Projections of other revenue sources are presented in a subsequent table, which summarizes the Department's financial position during the financing of projected operating and capital requirements.

Operation and Maintenance Expenses

A summary of projected operation and maintenance expense for the period 2008 through 2012 is shown in Table 9. Expenses are categorized by system function as now reflected in the accounting system of the Sewerage and Water Board. Estimates of future expenses are based on anticipated future operating conditions and allowances for inflationary factors.

Based on historical trends and conversations with utility staff, all costs are projected to increase 3.0 percent per year from the Board's budget for 2008.

Debt Service Requirements

Water Revenue Bonds in the amount of \$16,000,000 in 1998 and \$34,000,000 in 2002 have been issued. Shown in Table 10 are the scheduled principal and interest requirements on the outstanding bonds for the period 2008 through 2012.

Because bonds cannot be issued during the period 2008 through 2012 due to noncompliance with the parity debt service coverage tests, the issuance of Bond Anticipation Notes (BANs), beginning in 2009, is required to finance the program of major capital improvements for the Water Department.

Adequacy of Revenues to Finance Proposed Capital Improvements

Total revenue requirements for the Water Department recognized for purposes of this report include operation and maintenance expense, allowance for claims, debt service costs on major capital improvements financed through the sale of bonds, and expenditures for capital improvements not financed from bond proceeds. Table 11 summarizes the financing of operation and maintenance expense, debt service costs on outstanding and proposed bonds, and the transfer of operating funds for major capital improvement financing. It also examines the financing of the major capital improvement program.

Operating Fund

Line 1 of Table 11 shows projected Revenue from Charges under 2008 rates as previously presented in Table 8.

Lines 2 through 6 show any indicated increases in water revenues associated with rate increases assumed to be in effect the number of months shown. The rate increases shown reflect the increases proposed in our *Report on Revenue Requirements, Costs of Service and Rates for Water Service* that was issued in April of 2005. The series of revenue increases proposed in that study were approved by the City Council on October 4, 2007.

Other revenue available for system operations, shown on Lines 9 through 13, consist of Interest Income on operating funds, Three-Mill Revenue Sharing, Plumbing Inspection and License Fees, Other Miscellaneous Income, and Interest from Bond Reserve Fund. Interest Income available to the operating fund, shown on Line 9, is estimated to be 3 percent of the average of the beginning and end of year Net Annual Balance, except as the average is affected by identifiable nonrecurring major receipts, transfers, or expenditures during the year. Total Operating Revenue is shown on Line 14.

Operation and Maintenance expense, previously projected in Table 9, is shown on Line 15 of Table 11. Line 16 shows the estimated allowance for claims. Projected Net Operating Revenue from system operations is shown on Line 17.

Lines 18 through 22 present debt service requirements on currently outstanding and proposed revenue bonds. Issuance of BANs is required in 2008 through 2012 to fund major capital projects due to lack of compliance associated with the parity bond overage test in that period. Line 23 of Table 11 shows the projected interest expenses associated with the projected BAN issues.

In July of 2006, the Board entered into a Cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2006 through 2008. Draw downs on the loan will be made as debt service payments become due. No principal or interest shall be payable during the initial five-year period of the loan. After the expiration of the initial five-year period, the loan shall bear interest at a fixed rate of 4.64 percent. Principal payments on the bonds begin in July 2012 and the loan will mature in July 2026. Loan proceeds and anticipated loan payments are shown on Line 21.

During January 2006, the Board entered into a long-term agreement with the Federal Emergency Management Agency (FEMA) under the Community Disaster Loan Act. As of December 31, 2007, the Board had drawn all of the \$61,956,747 total funds available. The Loan is due in 2011; however, the term may be extended. The water portion of the loan payment which includes principal and interest is reflected on Line 24 of Table 11.

Line 25 reflects the projected transfer of accumulated net earnings from system operations to assist in major capital financing. Typically, such accumulated net earnings may be used to help recover portions of the annual costs of system operations or to assist in major capital improvement financing. There are no funds accumulated for transfer to construction in the water utility.

The Board has received funds from FEMA to assist with the expense associated with filing forms with FEMA. This reimbursement is shown on Line 26.

Line 28 indicates the estimated Net Annual Balance from operations remaining at the end of each year. The \$12,152,600 deficit net balance of operating funds available at the beginning of the year 2008, shown on Line 29, is comprised of the current assets less cash.

The End of Year Balance is shown on Line 30. It is intended that, in all years of the period 2008 through 2012, the End of Year Balance should equal or exceed the assumed adequate emergency capital reserve of 45 days operation and maintenance expense. It is anticipated that the Board will have a deficit End of Year Balance through 2012.

Capital Projects Funding

Major capital improvement financing is examined in Lines 31 through 46 of Table 11. The amount of Funds Available at Beginning of Year, shown on Line 31, is a deficit of \$6,613,500. This amount is based on audited data provided by the Board.

Because bonds cannot be issued due to noncompliance with the parity bond debt service coverage tests, issuance of BANs is required to fund the adopted capital program. Proceeds from the issuance of BANs are shown on Line 33. Interest paid on outstanding BANs is shown on Line 23 of Table 11.

It is anticipated that no operating reserves will be available to finance the major capital improvement program as shown on Line 34. Other sources of funds available to meet major capital improvement expenditures is Participation by Others and Interest Income. Interest earnings recognize an assumed 3 percent average annual interest rate. Lines 35 and 36 indicate the estimated annual funds from each of these sources. Line 37 of the table shows the projected major capital improvement funds available each year.

Lines 38 and 39 show the projected Routine Annual and Major Capital Additions to be funded as shown in Table 7. The Board anticipates receiving funds from FEMA under the provisions of the Stafford Act to restore all damaged assets to pre-Katrina condition. Some of the projects will be funded 100 percent by FEMA while others will be funded at 90 percent with the remaining 10 percent to be paid by the Board. Line 40 shows the estimated amount that will not be reimbursed by FEMA.

Estimated issuance costs related to the proposed BANs are shown on Line 42. The Total Application of Funds is shown on Line 45 of Table 11. The net End of Year Balance is shown on Line 46.

Bond Coverage Requirements

A requirement of the Water Bond Resolution provides that rates must be adopted that will provide revenues in excess of operation and maintenance expense of at least 130 percent of the current year's Bond Debt Service Requirement. As shown on Line 47 of Table 11, the indicated revenue increases will not provide sufficient net revenues to meet coverage requirements throughout the study period.

The results of the Additional Bonds Test, described in an earlier section of this report, are shown on Lines 48 through 50 of Table 11. These tests will also not be met during the study period.

As previously mentioned, the Board has adopted an aggressive plan to help stimulate the collection of revenue which is based on reestablishing delinquent processes that had been suspended since Hurricane Katrina. As a result, the Board estimates that approximately \$3.1

million will be recovered from delinquent accounts in 2009. Additionally, the Board is committed to lowering operating expenses by eliminating overtime by 25% - 35%, initiating a hiring freeze for all non-essential positions, and eliminating all discretionary spending. Finally, the Board has overhauled its vehicle policy for work and take home vehicles which is anticipated to reduce motor fuel and fleet maintenance expenses by about 25%. With continued enforcement of the new policies, the Board anticipates increasing revenues and decreasing costs, therefore, reducing the projected deficit in future years.

Table 1**Insurance in Force as of December 31, 2007**

Carrier	Kind and / or Location	Amount of Coverage	Policy Period	
			From	To
		\$		
Interstate Fire & Casualty Company	Business Automobile	Primary: \$1,000,000 (339 Units) (\$200,000 Deductible)	06/20/07	06/20/08
Fidelity & Deposit Company of Maryland	Government Crime Policy	\$500,000 (\$10,000 Deductible)	05/01/07	05/01/08
Lexington Ins. Co. RSUI Indemnity Co. Westchester Surplus Lines Ins. Co.	Fire, Extended Coverage and Vandalism and Malicious Mischief	\$46,401,255 Building \$22,114,000 Contents (\$25,000 Deductible)	09/01/07	09/01/08
Zurich North America Surety	Performance Bond	\$100,000 Limit	06/09/07	06/09/08
Lexington Insurance Co.	Vehicle Physical Damage	\$12,534,764 (\$250,000 Deductible)	08/17/07	08/17/08
National Union Fire Insurance Co.	Public Officials and Employees Liability	\$5,000,000 (\$100,000 Deductible)	11/20/07	11/20/08
Travelers Casualty & Surety	Fiduciary Liability	\$1,000,000 (\$50,000 Deductible)	08/01/07	08/01/10

Table 2
Water Department
Historical and Projected Sales and
Average Number of Customers (a)

	Historical					Projected				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Single Family Residential (b)										
Customers	124,725	122,143	94,379	104,843	97,218	98,190	104,376	105,420	106,474	107,539
Sales (1,000,000 gal.)	9,473	9,163	6,471	5,207	6,110	6,284	6,889	7,169	7,453	7,743
Sales Per Customer (1,000 gal.)	76	75	69	50	63	64	66	68	70	72
Multi-family Residential										
Customers	5,605	5,423	4,184	4,818	4,626	4,672	4,966	5,016	5,066	5,117
Sales (1,000,000 gal.)	2,260	1,913	1,285	895	887	911	998	1,038	1,079	1,121
Sales Per Customer (1,000 gal.)	403	353	307	186	192	195	201	207	213	219
Commercial										
Customers	11,756	11,693	9,095	13,390	10,448	10,552	11,217	11,329	11,442	11,556
Sales (1,000,000 gal.)	5,643	5,623	4,140	3,874	4,144	4,274	4,678	4,872	5,069	5,270
Sales Per Customer (1,000 gal.)	480	481	455	289	397	405	417	430	443	456
Industrial										
Customers	25	24	19	47	24	24	26	26	26	26
Sales (1,000,000 gal.)	78	80	92	148	123	122	133	133	133	133
Sales Per Customer (1,000 gal.)	3,065	3,303	4,910	3,157	5,086	5,100	5,100	5,100	5,100	5,100
Dual Service & Metered Fire Service (c)										
Customers	1,200	1,220	1,020	929	1,197	1,209	1,285	1,298	1,311	1,324
Sales (1,000,000 gal.)	3,509	3,577	2,629	2,467	2,663	2,781	2,956	2,985	3,015	3,045
Sales Per Customer (1,000 gal.)	2,924	2,932	2,578	2,656	2,225	2,300	2,300	2,300	2,300	2,300
Total										
Customers	143,312	140,502	108,697	124,027	113,513	114,647	121,870	123,089	124,319	125,562
Sales (1,000,000 gal.)	20,963	20,355	14,616	12,592	13,927	14,372	15,653	16,196	16,749	17,311

- (a) Excludes customers receiving free service.
(b) Includes duplex.
(c) Does not include flat rate fire protection customers.

Table 3

**Water Department
Existing Water Rates
(Effective November 1, 2007)**

		General Service	Dual Service (a)
		\$	\$
Monthly Water Service Charge			
<u>Meter Size</u>			
Inches			
	5/8	3.50	4.80
	3/4	4.30	5.90
	1	5.50	7.70
	1-1/2	9.00	12.00
	2	12.00	17.00
	3	27.00	38.00
	4	47.00	66.00
	6	92.00	129.00
	8	137.00	192.00
	10	186.00	260.00
	12	218.00	306.00
	16	290.00	407.00

Monthly Water Quantity Charge - per 1,000 Gallons

First	3,000 gallons	1.94	1.94
Next	17,000 gallons	3.31	3.31
Next	980,000 gallons	2.60	2.60
Over	1,000,000 gallons	2.19	2.19

Flat Rate Fire Service

<u>Meter Size</u>		
Inches		
	2	8.00
	3	11.00
	4	20.00
	6	34.00
	8	47.00
	10	73.00
	12	95.00
	16	130.00

(a) Includes Dual Service and all metered fire services.

Table 4
Water Department
Statement of Historical Revenues

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
	\$	\$	\$	\$	\$
Operating Revenue					
Sales of Water	53,886,572	53,057,240	37,997,862	33,718,910	36,198,631
Delinquent Fee	<u>1,111,260</u>	<u>1,176,905</u>	<u>729,404</u>	<u>80,850</u>	<u>1,596,891</u>
Total Operating Revenue	54,997,832	54,234,145	38,727,266	33,799,761	37,795,522
Nonoperating Revenue					
Interest Earned	468,688	563,059	666,889	834,088	800,236
Plumbing Inspection and License Fees	107,822	116,574	87,630	295,122	271,170
Revenue Sharing	342,946	331,223	281,159	282,273	197,190
Other Income	<u>992,112</u>	<u>1,660,249</u>	<u>1,901,997</u>	<u>2,283,384</u>	<u>1,330,045</u>
Total Nonoperating Revenue	1,911,568	2,671,105	2,937,675	3,694,867	2,598,641
Total Revenues	56,909,400	56,905,250	41,664,942	37,494,628	40,394,163

Table 5

**Water Department
Historical Operation and Maintenance Expenses**

	2003	2004	2005	2006	2007
	\$	\$	\$	\$	\$
Management and General Expenses					
Administrative	1,428,644	1,994,969	1,799,005	1,290,870	2,056,157
Management Services Director	91,640	88,643	99,251	75,410	26,676
Building and Grounds and Support Services	1,007,156	1,017,743	948,310	1,128,139	1,383,923
Personnel Administration	437,976	452,757	397,340	297,352	372,108
Finance Administration	695,921	704,143	777,050	691,849	741,562
Information Systems	1,888,962	2,125,759	2,443,907	2,230,138	2,037,654
Revenue and Customer Service	2,911,598	3,078,314	2,882,398	2,325,713	2,746,344
Purchasing	259,125	262,234	268,376	216,849	235,090
Total Management and General	8,721,022	9,724,562	9,615,637	8,256,320	9,599,514
Operations Expenses					
General Superintendent	299,603	389,054	229,857	164,123	196,374
Chief of Operations	102,461	105,042	100,915	71,717	77,769
Water Pumping and Power	11,402,622	13,299,299	15,037,043	8,870,268	14,866,810
Central Control	579,450	620,571	748,612	470,418	431,312
Water Purification	6,295,805	6,180,711	6,685,610	7,026,675	8,199,532
Chief of Facilities Maintenance	115,828	112,109	118,707	61,042	66,631
Facilities Maintenance	2,912,654	2,950,542	3,479,142	2,990,353	3,326,563
Central Yard	2,303,389	2,424,053	2,472,046	1,995,190	2,499,556
Office of Chief of Networks	149,863	175,162	113,222	90,770	357,326
Networks	13,268,454	13,695,566	12,451,563	9,274,448	12,490,047
Engineering	1,245,919	1,315,150	1,391,081	1,051,807	1,184,106
Plumbing	448,181	433,282	461,852	400,927	441,830
Total Operations	39,124,229	41,700,541	43,289,650	32,467,738	44,137,856
Other Expenses					
Special Accounts	1,243,833	1,127,730	1,194,655	1,506,011	1,661,998
Payroll Related Expenses	2,580,955	3,083,796	2,970,428	3,090,901	7,444,540
Overhead Allocation	(3,864,563)	(3,942,123)	(4,124,375)	(3,535,924)	(4,271,666)
Total Other	(39,775)	269,403	40,708	1,060,988	4,834,872
Total Operation and Maintenance (a)	47,805,476	51,694,506	52,945,995	41,785,046	58,572,242

(a) Source: Expenditure Analysis by Group Report.

Note: Historical operation and maintenance expenses do not include the non-cash portion of provision for claims as recorded in the Comprehensive Annual Financial Report. Estimates of future Water Department claims payable are included in Table 11.

Table 6

**Water Department
Capital Expenditures (a)
2007**

C.P. #	Project	Actual Expenditures
		\$
	Waterworks	
110	Normal Extensions & Replacements	261,963
135	Improvements to Chemical System	120,310
160	Hurricane Katrina Expense for Water	8,547,539
175	Water Hurricane Recovery Bonds	<u>167,610</u>
	Total Waterworks	9,097,421
	Water Distribution	
214	Normal Extensions & Replacements	1,499,738
215	Rehabilitation - Mains, Hydrants & Services	763,650
216	Water System Replacement Program	1,528
239	Mains In Street Department Contracts	<u>942,501</u>
	Total Water Distribution	3,207,417
600	Water Share of Power Projects	576,726
800	Water Share of General Budget Items	<u>5,345,607</u>
	Total Water Department	18,227,171

(a) Expenditures do not include proration of interest expense.

Table 7

**Water Department
Proposed Capital Improvements (a)**

C.P. #	Project	2008	2009	2010	2011	2012	Total
		\$	\$	\$	\$	\$	\$
Routine Capital Improvements							
110	Normal Extension & Replacement	2,550,000	2,050,000	2,050,000	2,050,000	2,050,000	10,750,000
112	Modification to Oak St. Raw Water Intake Station	1,000,000	3,000,000				4,000,000
122	Filter Rehabilitation	625,000	625,000	625,000	5,625,000	5,625,000	13,125,000
200	Eng. & Insp. of Devp. Installations	10,000	10,000	10,000	10,000	10,000	50,000
214	Normal Extensions & Replacements (b)						0
215	Rehabilitation - Mains, Hydrants and Services (b)						0
221	Feeder Main Extension, General (b)						0
239	Mains In Streets Department Contracts	5,200,000	5,200,000	5,300,000	5,400,000	5,700,000	26,800,000
600	Water Share of Power Projects	455,000	166,000	66,000	63,000	63,000	813,000
701	Water Reserve for Emergencies	700,000					700,000
800	Water Share of General Budget Items	14,967,000	8,845,000	8,153,000	6,997,000	6,904,000	45,866,000
	Total Routine Capital Improvements	25,507,000	19,896,000	16,204,000	20,145,000	20,352,000	102,104,000
Major Capital Improvements							
135	Improvements to Chemical System	150,000	700,000	700,000			1,550,000
156	Advanced Carrollton Water Treatment	150,000	150,000				300,000
157	Advanced Algiers Water Treatment	160,000					160,000
159	Water Plant Security Improvements	100,000	3,170,000	2,600,000	100,000	100,000	6,070,000
216	Water System Replacement Program (b)						0
	Total Major Capital Improvements	560,000	4,020,000	3,300,000	100,000	100,000	8,080,000
	Total Water Department Improvements	26,067,000	23,916,000	19,504,000	20,245,000	20,452,000	110,184,000

- (a) The improvements for the 2008-2012 period are based on the budget dated December 19, 2007.
- (b) The costs associated with CP 214, 215, 216, and 221 will be funded from FEMA reimbursements.

Table 8

**Water Department
Projected Operating Revenues**

<u>Year</u>	<u>Total Operating Revenues</u> \$
2008	40,356,900
2009	43,647,200
2010	44,942,800
2011	46,258,700
2012	47,595,600

Historical and Projected Operating Revenue

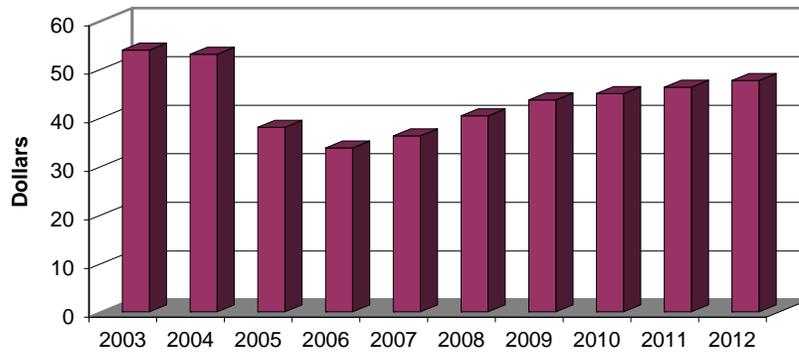


Table 9

**Water Department
Projected Operation and Maintenance Expenses**

	2008 (a)	2009	2010	2011	2012
	\$	\$	\$	\$	\$
Management and General Expenses					
Administrative	3,064,400	3,156,300	3,251,000	3,348,500	3,449,000
Management Services Director	29,300	30,200	31,100	32,000	33,000
Building and Grounds and Support Services	1,245,900	1,283,300	1,321,800	1,361,400	1,402,300
Personnel Administration	293,800	302,600	311,600	321,000	330,600
Finance Administration	662,300	682,200	702,700	723,700	745,500
Information Systems	2,666,400	2,746,400	2,828,800	2,913,600	3,001,000
Revenue and Customer Service	2,626,400	2,705,200	2,786,400	2,870,000	2,956,100
Purchasing	370,500	381,700	393,100	404,900	417,100
Total Management and General	10,959,000	11,287,900	11,626,500	11,975,100	12,334,600
Operations Expenses					
General Superintendent	244,400	251,700	259,300	267,100	275,100
Chief of Operations	79,300	81,700	84,100	86,600	89,200
Water Pumping and Power	13,125,100	13,518,800	13,924,400	14,342,100	14,772,400
Central Control	428,600	441,500	454,700	468,400	482,400
Water Purification	8,429,900	8,682,800	8,943,300	9,211,600	9,487,900
Chief of Facilities Maintenance	69,800	71,900	74,100	76,300	78,600
Facilities Maintenance	3,693,400	3,804,200	3,918,300	4,035,900	4,157,000
Central Yard	2,294,200	2,363,000	2,433,900	2,506,900	2,582,100
Office of Chief of Networks	129,800	133,700	137,700	141,800	146,100
Networks	11,083,400	11,415,900	11,758,300	12,111,100	12,474,400
Engineering	1,304,700	1,343,800	1,384,200	1,425,700	1,468,500
Plumbing	422,900	435,500	448,600	462,100	475,900
Total Operations	41,305,500	42,544,500	43,820,900	45,135,600	46,489,600
Other Expenses					
Special Accounts	2,942,700	3,030,900	3,121,900	3,215,500	3,312,000
Payroll Related Expenses	4,055,700	4,177,400	4,302,700	4,431,800	4,564,700
Overhead Allocation	(3,864,000)	(3,979,900)	(4,099,300)	(4,222,200)	(4,349,000)
Total Other	3,134,400	3,228,400	3,325,300	3,425,100	3,527,700
Total Operation and Maintenance	55,398,900	57,060,800	58,772,700	60,535,800	62,351,900
	35,229,548				

(a) Represents the adopted operating budget as of December 19, 2007.

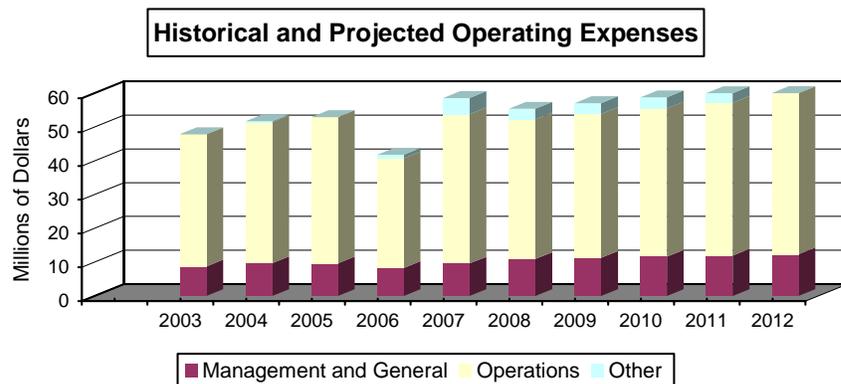


Table 10
Water Revenue Bond
Debt Service Requirements

	2008	2009	2010	2011	2012
	\$	\$	\$	\$	\$
Existing Bonds					
Series 1998	1,274,700	1,281,700	1,281,700	1,283,500	1,283,400
Series 2002	2,565,100	2,588,600	2,606,200	2,623,100	2,634,900
Total Existing Debt Service (a)	<u>3,839,800</u>	<u>3,870,300</u>	<u>3,887,900</u>	<u>3,906,600</u>	<u>3,918,300</u>
Proposed Bonds					
	Amount of Issue				
	\$				
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0		0	0	0
2011	0			0	0
2012	0				0
Total Proposed Debt Service	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Debt Service	<u>3,839,800</u>	<u>3,870,300</u>	<u>3,887,900</u>	<u>3,906,600</u>	<u>3,918,300</u>

(a) The Board has secured proceeds from the State of Louisiana's Gulf Opportunity Tax Credit Bond Loan Program which are intended to pay outstanding revenue bonds. The amount of the proceeds are shown on Line 21 of Table 11.

Table 11

**Water Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements**

Line No.		2008	2009	2010	2011	2012
		\$	\$	\$	\$	\$
Operating Fund						
1	Revenue from Charges	40,356,900	43,647,200	44,942,800	46,258,700	47,595,600
	Additional Revenue Required					
	Year					
	Revenue Increase					
	Months Effective					
2	2008	2,858,600	7,420,000	7,640,300	7,864,000	8,091,300
3	2009		1,063,900	2,629,200	2,706,100	2,784,300
4	2010			1,150,300	2,841,400	2,923,600
5	2011				994,500	2,455,800
6	2012					0
7	Total Additional Revenue	<u>2,858,600</u>	<u>8,483,900</u>	<u>11,419,800</u>	<u>14,406,000</u>	<u>16,255,000</u>
8	Total Service Charge Revenue	43,215,500	52,131,100	56,362,600	60,664,700	63,850,600
9	Interest Income	124,700	124,700	124,700	124,700	124,700
10	Three-Mill Revenue Sharing	200,000	200,000	200,000	200,000	200,000
11	Plumbing Insp. & License Fees	250,000	250,000	250,000	250,000	250,000
12	Other Miscellaneous Income	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
13	Interest from Bond Reserve Fund	120,000	120,000	120,000	120,000	120,000
14	Total Operating Revenue	<u>45,210,200</u>	<u>54,125,800</u>	<u>58,357,300</u>	<u>62,659,400</u>	<u>65,845,300</u>
15	Operation & Maintenance	55,398,900	57,060,800	58,772,700	60,535,800	62,351,900
16	Provision for Claims	540,600	521,300	202,200	208,200	214,500
17	Net Operating Revenue	<u>(10,729,300)</u>	<u>(3,456,300)</u>	<u>(617,600)</u>	<u>1,915,400</u>	<u>3,278,900</u>
Debt Service						
18	Existing	3,839,800	3,870,300	3,887,900	3,906,600	3,918,300
19	Proposed	0	0	0	0	0
20	Subtotal	<u>3,839,800</u>	<u>3,870,300</u>	<u>3,887,900</u>	<u>3,906,600</u>	<u>3,918,300</u>
21	Gulf Opportunity Zone Act Loan	(252,000)	0	0	0	639,900
22	Total Debt Service	<u>3,587,800</u>	<u>3,870,300</u>	<u>3,887,900</u>	<u>3,906,600</u>	<u>4,558,200</u>
23	Interest Expense on Proposed BAN's	425,000	2,000,000	3,143,800	4,131,300	5,156,300
24	Special Community Disaster Loan Payable	0	0	0	23,477,600	0
25	Transfer to Construction	0	0	0	0	0
26	FEMA Federal Assistance Fees	(858,000)	(858,000)	(858,000)	0	0
27	FEMA Water Sales Reimbursement	0	(3,100,000)	0	0	0
28	Net Annual Balance	<u>(13,884,100)</u>	<u>(5,368,600)</u>	<u>(6,791,300)</u>	<u>(29,600,100)</u>	<u>(6,435,600)</u>
29	Beginning of Year Balance	(12,152,600)	(26,036,700)	(31,405,300)	(38,196,600)	(67,796,700)
30	End of Year Balance	<u>(26,036,700)</u>	<u>(31,405,300)</u>	<u>(38,196,600)</u>	<u>(67,796,700)</u>	<u>(74,232,300)</u>
Capital Projects Funding						
31	Funds Available at Beginning of Year	(6,613,500)	975,400	812,100	600,000	674,300
32	Revenue Bond Proceeds	0	0	0	0	0
33	Proceeds from BANs	34,000,000	24,000,000	19,500,000	20,500,000	20,500,000
34	Operation Fund Transfers	0	0	0	0	0
35	Participation By Others	0	0	0	0	0
36	Interest Income	<u>32,100</u>	<u>28,900</u>	<u>23,100</u>	<u>24,300</u>	<u>23,400</u>
37	Total Funds Available	<u>27,418,600</u>	<u>25,004,300</u>	<u>20,335,200</u>	<u>21,124,300</u>	<u>21,197,700</u>
38	Routine Annual Additions (a)	25,507,000	19,896,000	16,204,000	20,145,000	20,352,000
39	Major Capital Additions (a)	560,000	4,020,000	3,300,000	100,000	100,000
40	FEMA Cost Share	36,200	36,200	36,200	0	0
Issuance Costs						
41	Bond Issuance Expense	0	0	0	0	0
42	BAN Issuance Expense	340,000	240,000	195,000	205,000	205,000
43	Revenue Bond Reserve Fund	0	0	0	0	0
44	Redemption of BAN's	0	0	0	0	0
45	Total Application of Funds	<u>26,443,200</u>	<u>24,192,200</u>	<u>19,735,200</u>	<u>20,450,000</u>	<u>20,657,000</u>
46	End of Year Balance	<u>975,400</u>	<u>812,100</u>	<u>600,000</u>	<u>674,300</u>	<u>540,700</u>
Debt Service Coverage						
47	Annual Test	-299%	-89%	-16%	49%	72%
Additional Bonds Test						
48	Prior Two-Year Test	-288%	-367%	-180%	-51%	17%
49	Maximum Future Debt Test	-272%	-87%	-15%	49%	84%
50	Coverage 5 Years after Sale	83%	82%	81%	80%	79%

(a) The costs associated with CP 214, 215, 216, and 221 will be funded from FEMA reimbursements.

Sewerage Department

Adherence to Sewerage Service Revenue Bond Resolution

In 1997, the Board issued \$30,000,000 Sewerage Service Revenue Bonds. Issuance of these bonds obligated the Board to adhere to the covenants of the Bond Resolution. Briefly, the covenants are concerned with:

- Powers as to bonds and pledge.
- Extension of payment of bonds.
- Establishment of rates and charges.
- Sale, lease, and encumbrance of the system.
- Operation, maintenance, and reconstruction of the system.
- Insurance and condemnation.
- Preparation of an annual operating budget.
- Preparation of the capital improvement budget.
- Employment of Consulting Engineer
- Maintenance of accounts and reports.
- Issuance of additional bonds.

The provisions of the Sewerage Service Revenue Bond Resolution are virtually identical to those of the Water Revenue Bond Resolution described in the preceding section of this report. The Board has complied with these covenants in the same manner as for the Water Revenue Bond covenants.

In July of 2006, the Board entered into a cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2006 through 2008. As a result of this agreement, the Board's 2007 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2007.

2007 Sewerage Department Operations

Funds for the operation, maintenance, and debt service requirements of the Sewerage Department are obtained from sewerage service charges. The balance of revenue remaining after meeting these costs may be used for cash financing capital improvements as required. Other fund sources include participation by others, interest earned on invested funds, and other minor sources.

Revenues and expenditures related to the 2007 operations of the Sewerage Department are discussed in the following paragraphs.

Wastewater Volumes***Number of Customers***

Table 12 presents a summary of the historical and projected average number of sewer customers for the period 2003 through 2011. Based on year-end billing summaries, the number of monthly billed customers during 2007 average 111,775 compared with 122,817 for 2006. In 2007, the Board began an aggressive campaign to close accounts that reflected no recent water usage and/or no recent payments. Customers were notified in writing in August of 2007 that accounts would be closed if there had been no payment received for at least 4 months. Beginning in December 2007, Board staff worked overtime to review each account, delete unwarranted charges and close the accounts. As of the date of this report, approximately 12,000 accounts have been closed. Due to personnel constraints, the Board did not remove the meters at the time the accounts were closed. Therefore, customers were able to have meters turned on and consume water without reactivating the account. In October of 2008, the Board hired a contractor to begin removing the meters associated with closed accounts. As a result, many customers have requested to have their services restored and are opening new accounts. Based on the daily counts of the number accounts opened and closed during 2008, it is projected that approximately 7,200 new accounts will be opened in 2009 as a result of the Board's actions. The projected number of customers assumes a 1 percent annual growth rate beginning in 2010.

Billed Wastewater Volume

Table 12 also presents a summary of historical and projected billed wastewater volumes. Based on year-end billing summaries, a total of 11,466 million gallons of wastewater volume was billed on the monthly basis in 2007, compared with a total of 10,517 million gallons in 2006.

Operating Revenues

Sewerage Department operating revenue for 2007 consisted of sales revenues based on the schedule of sewerage service charges shown in Table 13. The rates consist of monthly service charges, which vary by meter size, plus a volume charge. Quantity charges for single family residential and multi-residential customers are based on 85 percent of the metered water consumption to allow 15 percent for lawn watering and other uses, which contribute no flow to the sanitary sewer. All other classes are based on 100 percent of water consumption. Water from private wells or other non-Board sources that is discharged to the sanitary sewer system is to be metered and the consumption included in computing sewerage service charges. Any customer who can show that only a portion of his metered water usage is discharged to the

sanitary sewer system is to be charged for only that portion of the total water quantity. A residential customer may have either the 15 percent allowance or a special exemption, but not both.

A summary of historical sewer billings and other Sewerage Department revenue is presented in Table 14 for the period 2003 through 2007. The historical revenues shown in Table 14 were developed from detailed records provided by Board staff. Operating revenues are derived from sewerage service charge revenue, which includes excess strength charges, and delinquent fees. Sewerage service charge revenues in 2007 were \$67,236,119 which, when compared with \$62,603,477 for 2006, shows an increase of approximately 7.4 percent. Delinquent fee revenues were \$1,068,458 in 2007 which represent a significant increase over 2006 delinquent fees as a result of the Board's increased delinquent enforcement and collection efforts.

Non-operating Revenues

Also shown in Table 14, Sewerage Department non-operating revenue includes interest earned on the investment of available funds and other minor items of revenue. Interest earned in 2007 consisted of \$2,863,788 from investments in the Sewerage System fund, the capital projects and construction fund. Miscellaneous income was \$713,798 for 2007.

Operation and Maintenance Expenses

As previously discussed in the section of this report covering Water Department Operation and Maintenance Expenses, the Sewerage and Water Board utilizes a system of accounts designed to group expenses by function for budget purposes. Under the present system of accounts, expenses are categorized under the general classifications of management and general, operations expenses, and other expenses. Management and general expenses include wages, materials and supplies, services, and other costs of operating the Office of the Management Services Director, Personnel Administration, Finance Department, Information Systems, Purchasing Administration, Customer Services Department, and other administrative services including the Deputy Director, Executive Director, and Legal Department. Operations expenses encompass the costs of collecting, transporting, treating, and disposing of wastewater. Other expenses include such items as general insurance, outside services employed, social security, worker's compensation insurance, pension and medical insurance contributions, and miscellaneous expenditures.

Table 15 presents a summary of 2003 through 2007 historical operation and maintenance expenses of the Sewerage Department. Expenditures for 2007 increased about 17 percent from 2006 expenditures and about 10.8 percent from 2005 expenditures. The largest increase from

2005 expenses is reflected in Payroll Related Expenses. In July of 2004, the Governmental Accounting Standard Board (GASB) released Statement 45 (GASB 45) concerning health and other non-pension benefits for retired public employees. As a result of GASB 45, the Board must set aside money to cover the cost of post-retirement benefits as opposed to funding the benefits on a pay-as-you-go basis. This liability is reflected in the 2007 operating expenses. Historical operation and maintenance expenses shown in Table 15 do not include the non-cash portion of Provision for Claims as recorded in the Comprehensive Annual Financial Report. Estimates of future Sewerage Department claims are shown on Line 16 in Table 21.

Capital Budget and Expenditures

Capital expenditures of the Sewerage Department include the cost of replacements and improvements to wastewater treatment and collection facilities. Total expenditures of \$50,450,034 were made in 2007. Capital improvement expenditures for 2007 are shown in Table 16.

Summary of Operations

The following tabulation shows a summary of the receipts and expenditures of the Sewerage Department during 2007:

Total Revenue	\$71,882,162
Operation and Maintenance Expense	38,655,934
Claims	130,020
Bond Debt Service	<u>0</u>
Revenue Available for Capital Expenditures (a)	\$33,096,208

(a) Excludes depreciation.

Proposed Capital Improvement Program

Table 17 presents a summary of the projected major capital improvement program for the period 2008 through 2012. Table 17 is based on estimated improvement program scheduling and cost data taken from the Board's 2008 adopted Capital Budget and the 2009-2012 proposed Capital Program. The Sewerage and Water Board staff has prepared a Capital Improvement Program calling for expenditures, exclusive of prorated interest, of \$138,553,000 in the five-year period 2008 through 2012. The costs associated with CP 313, 317, and 326 will be funded from FEMA reimbursements and is discussed in the next section. CP 358, which is the proposed expansion of the East Bank Sewerage Treatment Plant, has been removed from the 2008-2012 study period per staff direction. Of the projected total, \$90,513,000 is considered to be for

recurring annual capital improvements. The remaining \$48,040,000 is for proposed major capital expenditures. Costs of power projects and general budget items are prorated between the Water, Sewerage and Drainage Departments on the basis of relative use. The projected Sewerage Department pro rata share of power project and general budget item costs for the five-year period 2008 through 2012 total \$709,000 and \$31,970,000, respectively.

The Board is currently complying with the EPA Region 6 Administrative Order; however, due to Hurricane Katrina the Consent Decree has been temporarily suspended. The Capital Improvement Program shown in Table 17 represents the schedule for complying with the Consent Decree prior to Hurricane Katrina, with the exception of Project 358. The proposed expansion of the East Bank Sewer Treatment Plant, as mentioned above, has been removed from the study period at the direction of utility staff.

Ability to Finance Proposed Capital Expenditures

This section of the report analyzes the adequacy of projected revenues to finance the proposed capital improvements shown in Table 17.

Operating Revenues

Future operating revenues of the Sewerage Department consist of sewerage service charge revenues which are summarized for 2008 through 2012 in Table 18. Future revenues reflect the existing rate schedule, which became effective July 1, 2006 applied to the projected number of customers and water usage.

Other Revenue Sources

Based upon past practices, the Sewerage Department can expect to obtain revenues or funds from non-operating sources. These include interest earned from the investment of available funds, participation by others, and miscellaneous other income. Also, by Board policy, the Sewerage Department receives one-half of the plumbing inspection and license fees, currently projected at \$250,000 per year. Additionally, about \$300,000 is currently anticipated for three-mill revenue sharing.

Interest income from the investment of funds held for future use depends upon the amount of funds accumulated for payment of future capital expenditures. Projections of interest income are presented in a subsequent table which summarizes the Department's financial position, and recognizes the financing of proposed capital improvements.

Participation by others consists of monies collected from developers and individuals for the extension of sewerage service to new customers and from governmental agencies for replacement and expansion of system facilities.

Operation and Maintenance Expense

A summary of projected operation and maintenance expense is shown in Table 19 and is categorized by the present system of accounts. Estimates of future expenses are based on 2008 budgeted expenses with an allowance for continued inflation. Based on historical trends and conversations with utility staff, all costs are projected to increase 3.0 percent per year.

Debt Service Requirements

Sewerage Service Revenue Bonds in the amount of \$30,000,000 in 1997, \$25,000,000 in 1998, two issues totaling \$47,100,000 in 2000, \$32,720,000 in 2001, \$57,000,000 in 2002, \$5,500,000 in 2003, and \$33,000,000 in 2004 have been issued. Shown in Table 20 are the scheduled principal and interest requirements on the outstanding bonds for the period 2008 through 2012.

To adequately fund the proposed capital improvements, additional revenue bonds are indicated as shown in Table 20. It is assumed that the terms of new debt incurred will be 5.0 percent for a term of 30 years. Because the amount of bonds that can be issued is limited by the debt service coverage tests, issuance of Bond Anticipation Notes (BANs) in 2008 and 2009 is also required to finance the program of major capital improvements for the Sewer Department.

Adequacy of Revenues to Finance Proposed Capital Improvements

Total revenue requirements for the Sewer Department recognized for purposes of this report include operation and maintenance expense, allowance for claims, debt service costs on major capital improvements financed through the sale of BANs and bonds, and expenditures for capital improvements not financed from bond proceeds. Table 21 summarizes the financing of operation and maintenance expense, debt service costs on outstanding and proposed bonds, and the transfer of operating funds for capital improvement financing. It also examines the financing of the major capital improvement program.

Operating Fund

Line 1 of Table 21 shows projected Revenue from Charges under 2008 rates as previously presented in Table 18.

Lines 2 through 6 show any indicated increases in sewer revenues associated with rate increases assumed to be in effect the number of months shown. There are no anticipated revenue increases for the sewerage utility during the study period.

Other revenue available for system operations, shown on Lines 9 through 13, consist of Interest Income on operating funds, Three-Mill Revenue Sharing, Plumbing Inspection and

License Fees, Miscellaneous Revenue, and Interest from Bond Reserve Fund. Interest Income available to the operating fund, shown on Line 9, is estimated to be 3 percent of the average of the beginning and end of year Net Annual Balance, except as the average is affected by identifiable nonrecurring major receipts, transfers, or expenditures during the year. Total Operating Revenue is shown on Line 14.

Operation and Maintenance expense, previously projected in Table 19, is shown on Line 15 of Table 21. Line 16 shows the estimated allowance for claims. Projected Net Operating Revenue from system operations is shown on Line 17.

Lines 18 through 22 present debt service requirements on currently outstanding and proposed revenue bonds. Additional revenue bond debt financing of as shown in Table 20 is assumed. This debt is assumed to be 30 year, 5.0 percent fixed interest rate bonds issued in October, with equal annual payments of principal and interest.

In July of 2006, the Board entered into a Cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2007 through 2008. Draw downs on the loan will be made as debt service payments become due. No principal or interest shall be payable during the initial five-year period of the loan. After the expiration of the initial five-year period, the loan shall bear interest at a fixed rate of 4.64 percent. Principal payments on the bonds begin in July 2012 and the loan will mature in July 2026. Loan proceeds and anticipated loan payments are shown on Line 21.

In July 2006, Sewerage Service Refunding Bond Anticipation Notes (BANs) were issued in the amount of \$24,030,000. The proceeds of these BANs were used to refund a portion of the Series 2005A Bans. The 2006 BANs are due July 2009. Line 23 of Table 21 shows the projected interest expenses associated with the outstanding BANs as well as proposed BANs.

During January 2006, the Board entered into a long-term agreement with the Federal Emergency Management Agency (FEMA) under the Community Disaster Loan Act. As of December 31, 2007, the Board had drawn all of the \$61,956,747 total funds available. The Loan is due in 2011; however, the term may be extended. The sewer portion of the loan payment which includes principal and interest is reflected on Line 24 of Table 21.

Line 25 reflects the projected transfer of accumulated net earnings from system operations to assist in major capital financing. Typically, such accumulated net earnings may be used to help recover portions of the annual costs of system operations or to assist in major capital improvement financing.

The Board has received funds from FEMA to assist with the expense associated with filing forms with FEMA. This reimbursement is shown on Line 26.

Line 27 indicates the estimated Net Annual Balance from operations remaining at the end of each year. The \$19,840,500 balance of operating funds available at the beginning of the year 2008, shown on Line 28, is comprised of the current assets less cash.

The End of Year Balance is shown on Line 29. It is intended that, in all years of the period 2008 through 2012, the End of Year Balance should equal or exceed the assumed adequate emergency capital reserve of 45 days of operation and maintenance expense. It is anticipated that the End of Year Balance will be equal to or greater than the targeted emergency capital reserve for each year of the study period.

Capital Projects Funding

Major capital improvement financing is examined in Lines 30 through 45 of Table 21. The amount of Funds on Hand, shown on Line 30, is a deficit of \$60,840,300. This amount is based on audited data provided by the Board.

Bond issues in the amount for a total of \$ 101,000,000 are projected and shown on Line 31 of Table 21. The amounts and years of issue are developed considering capital program needs, current policies, other sources of major capital improvement financing, and the debt service coverage requirements of the bond covenants regarding the issuance of parity revenue bonds. Because the amount of bonds that can be issued is limited by the debt service coverage tests, issuance of BANs is also required to fund the adopted capital program. Proceeds from issuance of BANs is shown on Line 32.

Financing of the major capital improvement program anticipates the transfer of a total of \$85,000,000 of operating reserves as shown on Line 33. Other sources of funds available to meet major capital improvement expenditures are participation by EPA (which are shown as zero for the study period) and interest income. Interest earnings recognize an assumed 3 percent average annual interest rate. Lines 34 and 35 indicate the estimated annual funds from each of these sources. Line 36 of the table shows the projected major capital improvement funds available each year.

Lines 37 and 38 show the projected Routine Annual and Major Capital Additions to be funded. The Board anticipates receiving funds from FEMA under the provisions of the Stafford Act to restore all damaged assets to pre-Katrina condition. Some of the projects will be funded 100 percent by FEMA while others will be funded at 90 percent with the remaining 10 percent to be paid by the Board. Line 39 shows the estimated amount that will not be reimbursed by FEMA.

Estimated issuance costs related to the proposed bond issue amounts and proposed BANs are shown on Lines 40 and 41, respectively. Line 42 shows the required deposits into the Revenue Bond Reserve Fund associated with proposed bond issues. The anticipated

Redemption of BANs, as mentioned above, is shown on Line 43 and the Total Application of Funds is shown on Line 44 of Table 21. The net End of Year Balance is shown on Line 45.

As demonstrated in Table 21, it is anticipated that both projected capital program requirements and estimated future operation expenses of the Sewerage Department can be readily financed during the 2008-2012 study period examined herein, with no indicated revenue increases.

Bond Coverage Requirements

A requirement of the Sewerage Service Revenue Bond Resolution provides that rates must be adopted that will provide revenues in excess of operation and maintenance expense of at least 130 percent of the current year's Bond Debt Service Requirements. As shown on Line 46 of Table 21, the existing schedule of rates will provide sufficient net revenues to meet coverage requirements during the study period.

The results of the Additional Bonds Test, described in an earlier section of this report, are shown on Lines 47 through 49 of Table 21.

Table 12

**Sewerage Department
Historical and Projected Billed Volumes
and Average Number of Customers (a)**

	Historical					Projected				
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Single Family Residential (b)										
Customers	124,122	121,524	93,897	104,312	96,611	97,577	103,724	104,761	105,809	108,983
Sales (1,000,000 gal.)	7,918	7,653	5,403	4,316	5,096	5,269	5,705	5,971	6,243	6,539
Sales Per Customer (1,000 gal.)	64	63	58	41	53	54	55	57	59	60
Multifamily Residential										
Customers	5,599	5,414	4,176	4,811	4,616	4,663	4,957	5,007	5,057	5,209
Sales (1,000,000 gal.)	1,954	1,635	1,094	766	747	769	843	876	910	964
Sales Per Customer (1,000 gal.)	349	302	262	159	162	165	170	175	180	185
Commercial										
Customers	11,984	11,897	9,292	13,623	10,513	10,618	11,287	11,400	11,514	11,859
Sales (1,000,000 gal.)	7,813	7,786	5,751	5,368	5,529	5,702	6,242	6,498	6,759	7,175
Sales Per Customer (1,000 gal.)	651	654	618	394	525	537	552	570	586	605
Industrial										
Customers	39	37	28	71	35	35	35	35	35	36
Sales (1,000,000 gal.)	88	86	57	67	94	53	53	53	53	55
Sales Per Customer (1,000 gal.)	2,292	2,348	2,023	937	2,675	1,514	1,514	1,514	1,514	1,514
Total										
Customers	141,743	138,871	107,393	122,817	111,775	112,893	120,003	121,203	122,415	126,087
Sales (1,000,000 gal.)	17,773	17,160	12,305	10,517	11,466	11,794	12,842	13,399	13,965	14,732

(a) Excludes customers receiving free service.

(b) Includes duplex.

Table 13

**Sewerage Department
Existing Sewer Rates
(Effective July 1, 2006)**

Monthly Sewerage Service Charge

<u>Meter Size</u>	<u>Total Monthly Charge</u>
Inches	\$
5/8	11.60
3/4	16.50
1	23.50
1-1/2	43.25
2	63.25
3	150.00
4	250.00
6	500.00
8	750.00
10	1,000.00
12	1,150.00
16	1,550.00

Monthly Quantity Charge

Per 1,000 Gallons	4.04
-------------------	------

Excessive Strength Charge per Pound

BOD	0.2619
TSS	0.1494

Table 14
Sewerage Department
Statement of Historical Revenues

	2003	2004	2005	2006	2007
	\$	\$	\$	\$	\$
Operating Revenue					
Sewerage Service Charges	61,585,345	71,465,136	56,842,180	62,603,447	67,236,119
Delinquent Fee	743,351	786,979	487,783	54,189	1,068,458
Total Operating Revenue	62,328,696	72,252,115	57,329,963	62,657,636	68,304,576
Nonoperating Revenue					
Interest Income	1,185,918	2,673,124	4,218,505	4,568,292	2,863,788
Plumbing Inspection and License Fees	107,822	116,574	87,630	295,122	271,170
Revenue Sharing	427,719	413,099	350,659	352,048	245,933
Other Income	56,690	284,927	256,648	58,556	196,695
Total Nonoperating Revenue	1,778,149	3,487,724	4,913,443	5,274,017	3,577,586
Total Revenue	64,106,845	75,739,839	62,243,406	67,931,653	71,882,162

Table 15

**Sewerage Department
Historical Operation and Maintenance Expenses**

	2003	2004	2005	2006	2007
	\$	\$	\$	\$	\$
Management and General Expenses					
Administrative	2,289,479	2,528,091	1,575,719	2,630,861	2,341,636
Management Services Director	66,820	64,635	72,370	54,986	19,451
Building and Grounds and Support Services	743,855	752,517	704,393	833,341	1,020,976
Personnel Administration	319,356	330,135	289,726	216,821	271,329
Finance Administration	528,126	534,728	588,646	525,451	546,981
Information Systems	1,377,367	1,550,033	1,782,016	1,626,143	1,485,788
Revenue and Customer Service	2,911,581	3,078,293	2,882,380	2,325,703	2,746,331
Purchasing	188,945	191,210	195,690	158,120	171,419
Total Management and General	<u>8,425,529</u>	<u>9,029,642</u>	<u>8,090,940</u>	<u>8,371,426</u>	<u>8,603,911</u>
Operations Expenses					
General Superintendent	218,460	283,685	167,604	119,672	143,189
Drainage Pumping and Central Control	298,867	343,313	335,715	210,012	333,390
Sewerage Pumping	2,327,686	2,349,727	2,404,140	2,018,413	2,962,907
Chief of Operations	74,711	76,593	73,583	52,294	56,706
Water Pumping and Power	337,290	379,879	1,949,523	3,023,657	342,093
Sewerage Treatment	12,317,374	12,525,522	8,982,281	8,091,279	9,989,978
Chief of Facilities Maintenance	84,459	81,746	86,558	44,510	48,584
Facilities Maintenance	2,302,474	2,336,736	2,739,218	2,342,667	2,607,184
Central Yard	1,742,439	1,827,746	1,835,205	1,467,353	1,876,880
Office of Chief of Networks	109,275	127,722	82,558	66,186	260,551
Networks	7,278,889	7,533,371	6,885,272	5,741,081	7,494,584
Engineering	908,482	958,961	1,014,334	766,945	863,407
Plumbing	448,178	433,278	461,851	400,924	441,827
Total Operations	<u>28,448,584</u>	<u>29,258,279</u>	<u>27,017,842</u>	<u>24,344,993</u>	<u>27,421,280</u>
Other Expenses					
Special Accounts	1,067,861	1,404,331	1,281,688	1,393,262	1,420,981
Payroll Related Expenses	1,637,674	1,910,252	1,856,434	1,819,006	4,702,075
Overhead Allocation	(3,159,474)	(3,222,884)	(3,371,886)	(2,890,799)	(3,492,313)
Total Other	<u>(453,939)</u>	<u>91,699</u>	<u>(233,764)</u>	<u>321,469</u>	<u>2,630,743</u>
Total Operation and Maintenance (a)	<u>36,420,174</u>	<u>38,379,620</u>	<u>34,875,018</u>	<u>33,037,888</u>	<u>38,655,934</u>

(a) Source: Expenditure Analysis by Group Report.

Note: Historical operation and maintenance expenses do not include the non-cash portion of provision for claims as recorded in the Comprehensive Annual Financial Report. Estimates of future Water Department claims payable are included in Table 11.

Table 16

**Sewerage Department
Capital Expenditures (a)
2007**

C.P. #	Project	Actual Expenditures
		\$
	Sewerage Systems	
308	Sewer Rehab - "DPR Solutions"	
313	Force Mains	3,849,067
317	Normal Extensions & Replacement of Gravity Mains	5,609,592
318	Rehabilitation Gravity Sewer System	249,998
326	Extensions & Replacements to Sewer Pump Stations	115,057
339	Mains in Street Dept. Contracts	881,757
347	Second Raw Sewage Channel, EBSTP	
348	Normal Extensions & Replacements	1,316,362
358	EBSTP Expansion	
367	Collection System Eval/Survey Uptown	997,293
368	Wetlands Assimilation Project	117,597
369	Hurricane Katrina Expenses for Sewer System	32,924,983
	Total Sewerage System	46,061,706
	Sewerage Treatment	
381	Modification & Extension of WBSTP to 20/50 MGD	
	Total Sewerage Treatment	0
600	Sewerage Share of Power Projects	134,792
800	Sewerage Share of General Budget Items	4,253,535
	Total Sewerage Department	50,450,034

(a) Expenditures do not include proration of interest expense.

Table 17
Sewerage Department
Proposed Capital Improvements (a)

C.P. #	Project	2008	2009	2010	2011	2012	Total
		\$	\$	\$	\$	\$	\$
Routine Annual Capital Improvements							
317	Extensions and Replacements - Gravity Mains (b) (d)						0
326	Extensions and Replacements to Pumping Stations (b) (d)						0
339	Mains in Streets Department Contracts	3,750,000	3,750,000	3,750,000	3,750,000	3,750,000	18,750,000
348	Extensions and Replacements - Treatment Plants	19,700,000	5,521,000	4,281,000	4,900,000	4,682,000	39,084,000
600	Sewer Share of Power Projects	574,000	57,000	32,000	23,000	23,000	709,000
702	Sewer Reserve for Emergencies						0
800	Sewer Share of General Budget Items	9,595,000	6,089,000	5,898,000	5,240,000	5,148,000	31,970,000
	Total Routine Annual Improvements	33,619,000	15,417,000	13,961,000	13,913,000	13,603,000	90,513,000
Major Capital Improvements							
300	Engineering/Inspection of Developer Installations	10,000	10,000	10,000	10,000	10,000	50,000
308	Sewer Rehabilitation						0
313	Extensions and Replacements - Sewer Force Mains (b) (d)						0
318	Rehabilitation Gravity Sewer System	5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
358	EBSTP Expansion (c) (d)						0
367	Sewer System Evaluation Study (d)	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
381	Modification and Expansion of WBSTP to 20/50 MGD	700,000	7,290,000				7,990,000
	Total Major Improvements	8,710,000	15,300,000	8,010,000	8,010,000	8,010,000	48,040,000
	Total Sewerage System Improvements	42,329,000	30,717,000	21,971,000	21,923,000	21,613,000	138,553,000

(a) The improvements for the 2008-2012 period are based on the budget dated December 19, 2007.

(b) The costs associated with CP 313, 317, and 326 will be funded from FEMA reimbursements.

(c) The costs associated with CP 358 have been removed from the study period.

Table 18

**Sewerage Department
Projected Operating Revenues**

<u>Year</u>	<u>Amount</u> \$
2008	72,385,000
2009	78,130,700
2010	80,633,400
2011	83,177,600
2012	87,059,300

Historical and Projected Operating Revenue

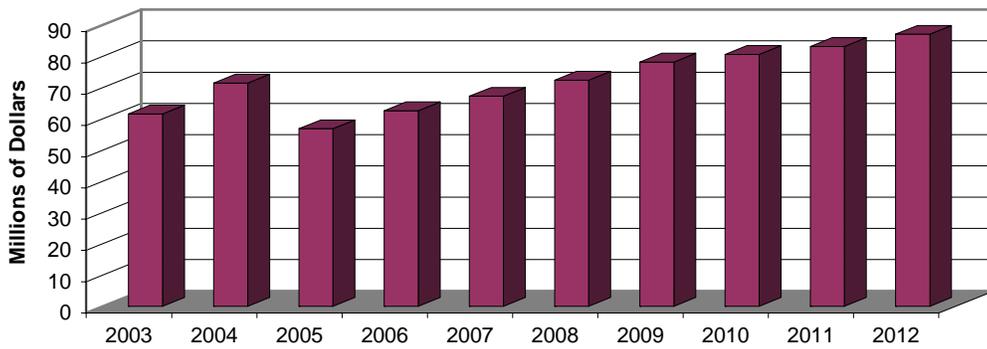


Table 19

**Sewerage Department
Projected Operation and Maintenance Expenses**

	2008 (a)	2009	2010	2011	2012
	\$	\$	\$	\$	\$
Management and General Expenses					
Administrative	2,657,300	2,737,000	2,819,100	2,903,700	2,990,800
Management Services Director	21,400	22,000	22,700	23,300	24,000
Building and Grounds and Support Services	908,500	935,700	963,800	992,700	1,022,500
Personnel Administration	214,200	220,600	227,200	234,100	241,100
Finance Administration	492,000	506,800	522,000	537,600	553,800
Information Systems	1,944,200	2,002,600	2,062,600	2,124,500	2,188,300
Revenue and Customer Service	2,626,400	2,705,200	2,786,400	2,870,000	2,956,100
Purchasing	270,200	278,300	286,600	295,200	304,100
Total Management and General	9,134,200	9,408,200	9,690,400	9,981,100	10,280,700
Operations Expenses					
General Superintendent	178,200	183,600	189,100	194,700	200,600
Drainage Pumping and Central Control	426,700	439,500	452,700	466,300	480,200
Sewerage Pumping	2,402,300	2,474,400	2,548,600	2,625,100	2,703,900
Chief of Operations	57,800	59,600	61,300	63,200	65,100
Water Pumping and Power	346,400	356,800	367,500	378,500	389,800
Sewerage Treatment	9,760,200	10,053,000	10,354,600	10,665,200	10,985,200
Chief of Facilities Maintenance	50,900	52,400	54,000	55,600	57,300
Facilities Maintenance	2,910,000	2,997,300	3,087,200	3,179,900	3,275,300
Central Yard	1,725,300	1,777,000	1,830,400	1,885,300	1,941,800
Office of Chief of Networks	94,600	97,500	100,400	103,400	106,500
Networks	7,870,300	8,106,500	8,349,700	8,600,100	8,858,100
Engineering	951,300	979,900	1,009,300	1,039,600	1,070,700
Plumbing	422,900	435,500	448,600	462,100	475,900
Total Operations	27,196,900	28,013,000	28,853,400	29,719,000	30,610,400
Other Expenses					
Special Accounts	2,551,700	2,628,200	2,707,100	2,788,300	2,871,900
Payroll Related Expenses	2,425,600	2,498,400	2,573,300	2,650,500	2,730,100
Overhead Allocation	(3,108,000)	(3,201,200)	(3,297,300)	(3,396,200)	(3,498,100)
Total Other	1,869,300	1,925,400	1,983,100	2,042,600	2,103,900
Total Operation and Maintenance	38,200,400	39,346,600	40,526,900	41,742,700	42,995,000

(a) Represents the adopted operating budget as of December 19, 2007.

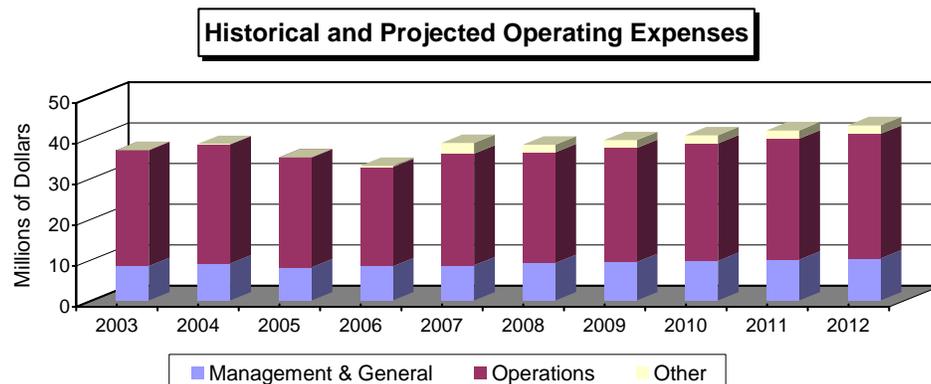


Table 20

**Sewerage Service Revenue Bond
Debt Service Requirements**

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
	\$	\$	\$	\$	\$
Existing Bonds					
Series 1997	2,505,900	2,511,000	2,515,400	2,519,000	2,522,400
Series 1998	1,998,300	2,003,900	2,004,900	2,007,400	2,007,500
Series 2000A	2,231,200	2,231,200	2,235,000	2,245,100	2,252,400
Series 2000B	1,686,900	1,692,600	1,699,000	1,703,900	1,709,900
Series 2001	2,629,800	2,617,500	2,614,800	2,612,800	2,609,600
Series 2002	4,481,200	4,516,000	4,550,800	4,570,800	4,582,200
Series 2003	406,900	406,500	408,100	408,100	405,500
Series 2004	2,451,800	2,438,700	2,448,100	2,457,200	2,461,900
Total Existing Debt Service (a)	<u>18,392,000</u>	<u>18,417,400</u>	<u>18,476,100</u>	<u>18,524,300</u>	<u>18,551,400</u>
Proposed Bonds					
	Amount of Issue				
	\$				
2008	21,000,000	306,000	1,223,800	1,223,800	1,223,800
2009	23,000,000		374,100	1,496,200	1,496,200
2010	18,000,000			292,700	1,170,900
2011	17,000,000				276,500
2012	22,000,000				357,800
Total Proposed Debt Service		<u>306,000</u>	<u>1,597,900</u>	<u>3,012,700</u>	<u>4,167,400</u>
Total Debt Service		<u>18,698,000</u>	<u>20,015,300</u>	<u>21,488,800</u>	<u>22,691,700</u>

(a) The Board has secured proceeds from the State of Louisiana's Gulf Opportunity Tax Credit Bond Loan Program which are intended to pay outstanding revenue bonds. The amount of the proceeds are shown on Line 21 of Table 22.

Table 21

**Sewerage Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements**

Line No.		2008	2009	2010	2011	2012
		\$	\$	\$	\$	\$
Operating Fund						
1	Revenue from Charges	72,385,000	78,130,700	80,633,400	83,177,600	87,059,300
	Additional Revenue Required					
	Year					
	Revenue Increase					
	Months Effective					
2	2008	0	0	0	0	0
3	2009	0	0	0	0	0
4	2010	0	0	0	0	0
5	2011	0	0	0	0	0
6	2012	0	0	0	0	0
7	Total Additional Revenue	0	0	0	0	0
8	Total Service Charge Revenue	72,385,000	78,130,700	80,633,400	83,177,600	87,059,300
9	Interest Income	411,100	199,500	385,200	424,400	236,300
10	Three-Mill Revenue Sharing	300,000	300,000	300,000	300,000	300,000
11	Plumbing Insp. & License Fees	250,000	250,000	250,000	250,000	250,000
12	Miscellaneous Revenue	175,000	175,000	175,000	175,000	175,000
13	Interest from Bond Reserve Fund	577,000	618,000	659,000	693,000	732,000
14	Total Operating Revenue	74,098,100	79,673,200	82,402,600	85,020,000	88,752,600
15	Operation & Maintenance	38,200,400	39,346,600	40,526,900	41,742,700	42,995,000
16	Provision for Claims	772,500	795,700	819,500	844,100	869,500
17	Net Operating Revenue	35,125,200	39,530,900	41,056,200	42,433,200	44,888,100
Debt Service						
18	Existing	18,392,000	18,417,400	18,476,100	18,524,300	18,551,400
19	Proposed	306,000	1,597,900	3,012,700	4,167,400	5,354,600
20	Subtotal	18,698,000	20,015,300	21,488,800	22,691,700	23,906,000
21	Gulf Opportunity Zone Act Loan	(12,025,600)	0	0	0	6,235,200
22	Total Debt Service	6,672,400	20,015,300	21,488,800	22,691,700	30,141,200
23	Interest Expense on BAN's	1,206,300	2,839,300	2,838,500	2,838,500	2,710,100
24	Special Community Disaster Loan Payable	0	0	0	23,477,600	0
25	Transfer to Construction	43,000,000	18,000,000	6,000,000	6,000,000	12,000,000
26	FEMA Federal Assistance Fees	(1,486,300)	(1,486,300)	(1,486,300)	0	0
27	Net Annual Balance	(14,267,200)	162,600	12,215,200	(12,574,600)	36,800
28	Beginning of Year Balance	19,840,500	5,573,300	5,735,900	17,951,100	5,376,500
29	End of Year Balance	5,573,300	5,735,900	17,951,100	5,376,500	5,413,300
Capital Projects Funding						
30	Funds on Hand	(60,840,300)	514,600	441,600	704,500	353,500
31	Revenue Bond Proceeds	21,000,000	23,000,000	18,000,000	17,000,000	22,000,000
32	Proceeds from BANs	42,000,000	16,000,000	0	0	0
33	Operation Fund Transfers	43,000,000	18,000,000	6,000,000	6,000,000	12,000,000
34	Participation by EPA	0	0	0	0	0
35	Interest Income	3,600	46,100	20,700	17,900	25,300
36	Total Funds Available	45,163,300	57,560,700	24,462,300	23,722,400	34,378,800
37	Routine Annual (a)	33,619,000	15,417,000	13,961,000	13,913,000	13,603,000
38	Major Capital Additions (a) (b)	8,710,000	15,300,000	8,010,000	8,010,000	8,010,000
39	FEMA Cost Share	255,900	255,900	255,900	0	0
Issuance Costs						
40	Bond Issuance Expense	420,000	460,000	360,000	340,000	440,000
41	BAN Issuance Expense	420,000	160,000	0	0	0
42	Revenue Bond Reserve Fund	1,223,800	1,496,200	1,170,900	1,105,900	1,431,100
43	Redemption of BAN's	0	24,030,000	0	0	10,500,000
44	Total Application of Funds	44,648,700	57,119,100	23,757,800	23,368,900	33,984,100
45	End of Year Balance	514,600	441,600	704,500	353,500	394,700
Debt Service Coverage						
46	Annual Test	526.4%	197.5%	191.1%	187.0%	148.9%
Additional Bonds Test						
47	Prior Two-Year Test	183.1%	172.1%	177.9%	182.5%	177.5%
48	Maximum Future Debt Service Test	190.3%	199.7%	195.7%	192.1%	190.9%
49	Coverage 5 Years after Sale	177.7%	183.2%	193.0%	219.8%	245.5%

(a) The costs associated with CP 313, 317, and 326 will be funded from FEMA reimbursements.

(b) The costs associated with CP 358 have been removed from the study period.

Drainage Department

2007 Drainage Department Operations

The Sewerage and Water Board has provided for the drainage needs of New Orleans since 1903. The City encompasses a saucer-shaped depression between the Mississippi River and Lake Pontchartrain on the East Bank and an area bordered by the river and adjoining wet lands on the West Bank. Prior to January 1, 1967, when the three-mill drainage tax became effective, the City of New Orleans was obligated to reimburse the Board for the cost of operating and maintaining drainage facilities.

In 1969, studies of projected capital improvement financing needs and revenue requirements indicated the need for additional sources of funds. Constitutional amendments, which would have provided the required funds from an additional three-mill ad valorem tax, were offered in 1970, and again in 1972. The State's electorate rejected both amendments. However, an additional six-mill ad valorem tax was approved April 16, 1977 and became effective January 1, 1978. Subsequently, a nine-mill property tax increase was approved May 16, 1981 and implemented January 1, 1982. The nine-mill tax is to be used for operation and maintenance, as well as funding of capital improvements.

Water entering the City in the form of rain or underground flow must be continually removed by pumping to minimize the danger of flooding, and pumping costs are significantly impacted by rainfall events. Rainfall in 2003, 2004, and 2005 was 2.65 inches, 3.55 inches, and 3.25 inches, respectively, above average annual rainfall. Rainfall in 2006 and 2007 was 13.43 inches and 6.11 inches, respectively, below average annual rainfall. A summary of rainfall for 2003 through 2007 is shown in Table 22.

The Board is charged with operating, maintaining, repairing, and expanding the major drainage system located throughout the City.

In July of 2006, the Board entered into a cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2006 through 2008. As a result of this agreement, the Board's 2007 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2007.

Revenues

Revenues that were available to the Drainage Department for operation and maintenance expenses, and capital additions, consisted of proceeds from the three-mill, six-mill, and nine-mill ad valorem tax, interest on investments, and miscellaneous income. Other revenues available for

Drainage Department capital improvements included interest income and other miscellaneous sources.

A summary of historical revenues received by source is shown in Table 23 for the period 2003 through 2007. The historical revenue shown in Table 23 was developed from detailed records provided by Board Staff.

Operation and Maintenance Expenses

The present system of accounts categorizes expenses under the functional classifications of management and general expenses, operations expenses, and other expenses, including such items as general insurance, outside services employed, social security, worker's compensation insurance, pension and medical insurance contributions, and miscellaneous expenditures.

Table 24 presents a summary of 2003 through 2007 operation and maintenance expenses of the Drainage Department. Expenditures for 2007 increased about 14.8 percent from 2006 expenditures. The largest increase from 2006 expenses is reflected in Payroll Related Expenses. In July of 2004, the Governmental Accounting Standard Board (GASB) released Statement 45 (GASB 45) concerning health and other non-pension benefits for retired public employees. As a result of GASB 45, the Board must set aside money to cover the cost of post-retirement benefits as opposed to funding the benefits on a pay-as-you-go basis. This liability is reflected in the 2007 operating expenses. Operation and maintenance expenses have increased an average of 11 percent per year over the five-year period shown. Historical operation and maintenance expenses shown in Table 24 do not include the non-cash portion of Provision for Claims as recorded in the Comprehensive Annual Financial Report. Estimate of future Drainage Department claims are included on Line 8 in Table 31.

Capital Budget and Expenditures

Capital expenditures of the Drainage Department include the cost of replacements and improvements to pumping stations and canals, and the Drainage Department's pro rata share of power projects and general budget costs.

The Drainage Department capital improvement expenditures for 2007, shown in Table 25, amounted to \$16,328,627.

Summary of Operations

The following tabulation shows a summary of receipts and expenditures of the Drainage Department during 2007:

Total Revenues	\$46,274,316
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Operation and Maintenance Expense	26,713,708
Claims	2,530,930
Bond Debt Service	<u>0</u>
Revenue Available for Capital Expenditures (a)	\$22,091,538

(a) Excludes depreciation

Proposed Capital Improvement Program

Table 26 presents a summary of the projected major capital improvement program for the period 2008 through 2012. Table 26 is based on estimated improvement program scheduling and cost data taken from the Board's 2008 adopted Capital Budget and the 2009-2012 proposed Capital Program. The five-year major capital improvement program costs are expected to total \$946,016,000. Major budget items include extension and enlargement of canals plus increased pumping capacity.

Participation by others consists of monies collected from developers and individuals for the extension of drainage service to new customers and from governmental agencies for replacement and expansion of system facilities. As shown in Table 27, future revenues from these sources are estimated by the Board in the 2008 through 2012 Capital Budget according to capital project and amount to \$518,421,000, most of which is provided by the United States Corps of Engineers.

The Sewerage and Water Board is currently receiving funds from the Corps of Engineers sponsored and congressionally authorized Southeast Louisiana Urban Flood Control (SELA) Project. This funding will allow additional construction of projects which were identified in the 1970's, but which have not been completed because of funding limitations.

Ability to Finance Proposed Capital Expenditures

Drainage Department future operating and capital cost requirements are to be met by the revenue sources previously discussed. In 2007, the three-mill, six-mill, and nine-mill ad valorem taxes were the principal source of operating funds for the Drainage Department.

Revenues

Projected operating income of the drainage system is shown in Table 28. Projections include proceeds from the three-mill, the six-mill, and the nine-mill ad valorem tax and other revenue and are based on the 2007 reassessed taxable value.

Other sources of income include interest earned from the investment of funds held for future use; sales of three-mill, six-mill, and nine-mill ad valorem tax bonds; and participation by

others. Projections of interest income, which vary according to the balance of funds held for future use, are shown in a later section of this report.

The projection of millage revenue for 2008 through 2012 is based on 6.40, 6.48, and 9.71 mills for three-mill, six-mill, and nine-mill taxes, respectively.

Operation and Maintenance Expenses

A summary of projected of operation and maintenance expenses are shown in Table 29. Expenses are categorized by system function as now reflected in the accounting system of the Sewerage and Water Board. Estimates of future expenses are based on anticipated future operating conditions and allowances for inflationary factors.

Based on historical trends and conversations with utility staff, all costs are projected to increase 3.0 percent per year from the Board's budget for 2008.

Debt Service Requirements

Nine-mill bonds in the amount of \$10,000,000 were issued in 1998, and as of December 31, 2007, \$6,650,000 remained outstanding. Additional nine-mill bonds in the amount of \$20,000,000 were issued in 2002, and as of December 31, 2007, \$17,185,000 remained outstanding.

Collection of the three-mill ad valorem tax levy is authorized until the year 2017; six-mill tax until 2028; and nine-mill tax until 2032.

Shown in Table 30 are the scheduled principal and interest requirements on the outstanding bonds for the period 2008 through 2012.

To adequately fund the proposed capital improvements, additional revenue bonds are indicated as shown in Table 30. It is assumed that the terms of new debt incurred will be 5.0 percent for a term of 30 years.

Debt service requirements associated with anticipated bond issues required to finance proposed major capital improvements are presented in Table 30 and described in the following section of this report. Revenue from the Participation by Others is shown in Table 27.

Adequacy of Revenues to Finance Proposed Capital Improvements

Total revenue requirements for the Drainage Department recognized for purposes of this report include operation and maintenance expense, allowance for claims, debt service costs on major capital improvements financed through the sale of bonds, and expenditures for capital improvements not financed from bond proceeds. Table 31 summarizes the financing of operation and maintenance expense, debt service costs on outstanding and proposed bonds, and

the transfer of operating funds for major capital improvement financing. It also examines the financing of the major capital improvement program.

Operating Fund

Money deposited in the Drainage System Fund is obtained primarily from the three-mill, six-mill, and nine-mill ad valorem tax as shown on Lines 1 through 3 of Table 31.

Other revenue available for system operations, shown on Lines 4 and 5, consist of other income and interest income. Interest Income available to the operating fund, shown on Line 5, is estimated to be 3 percent of the average of the beginning and end of year Net Annual Balance, except as the average is affected by identifiable nonrecurring major receipts, transfers, or expenditures during the year.

Operation and Maintenance expense, previously projected in Table 31, is shown on Line 7 of Table 31. Line 8 shows the estimated allowance for claims. Projected Net Operating Revenue from system operations is shown on Line 9.

Lines 10 through 14 present debt service requirements on currently outstanding and proposed revenue bonds. Additional debt financing as shown in Table 30 is assumed to fund proposed capital improvements. These bonds are assumed to be 30 year, 5.0 percent fixed interest rate bonds issued in October of each year, with equal annual payments of principal and interest.

In July of 2006, the Board entered into a Cooperative Endeavor Agreement with the State of Louisiana to secure proceeds from the State's Gulf Opportunity Tax Credit Bond Loan Program to assist in payment of debt service requirements from 2007 through 2008. Draw downs on the loan will be made as debt service payments become due. No principal or interest shall be payable during the initial five-year period of the loan. After the expiration of the initial five-year period, the loan shall bear interest at a fixed rate of 4.64 percent. Principal payments on the bonds begin in July 2012 and the loan will mature in July 2026. Loan proceeds and anticipated loan payments are shown on Line 13.

During January 2006, the Board entered into a long-term agreement with the Federal Emergency Management Agency (FEMA) under the Community Disaster Loan Act. As of December 31, 2007, the Board had drawn all of the \$61,956,747 total funds available. The Loan is due in 2011; however, the term may be extended. The drainage portion of the loan payment which includes principal and interest is reflected on Line 15 of Table 31.

Line 16 reflects the projected transfer of accumulated net earnings from system operations to assist in major capital financing. Typically, such accumulated net earnings may be used to help recover portions of the annual costs of system operations or to assist in major capital improvement financing.

The Board has received funds from FEMA to assist with the expense associated with filing forms with FEMA. This reimbursement is shown on Line 17.

Line 18 indicated the estimated Net Annual Balance from operations remaining at the end of each year. The \$10,245,500 net balance of operating funds available at the beginning of the year 2008, shown on Line 19, is comprised of the current assets less cash.

The End of Year Balance is shown on Line 20. It is intended that, in all years of the period 2008 through 2012, the End of Year Balance should equal or exceed the assumed adequate emergency capital reserve of 45 days operation and maintenance expense. It is anticipated that the End of Year Balance will be equal to or greater than the targeted emergency capital reserve through 2012.

Capital Projects Funding

Major capital improvement financing is examined in Lines 21 through 32 of Table 31. The amount of Funds on Hand, shown on Line 21, is \$25,809,200. This amount is based on audited data provided by the Board.

Bond issue amounts for a total of \$400,000,000 are projected and shown on Line 22 of Table 31. The amounts and year of issue are developed considering capital program needs, current policies, and other sources of major capital improvement financing.

It is anticipated that no operating reserves will be available to finance the major capital improvement program as shown on Line 23. Other sources of funds available to meet major capital improvement expenditures are Participation by Others and Interest Income. Interest earnings recognize an assumed 3 percent average annual interest rate. Lines 24 and 25 indicate the estimated annual funds from each of these sources. Line 26 of the table shows the projected major capital improvement funds available each year.

Lines 27 and 28 show the projected Routine Annual and Major Capital Additions to be funded. The Board anticipates receiving funds from FEMA under the provisions of the Stafford Act to restore all damaged assets to pre-Katrina condition. Some of the projects will be funded 100 percent by FEMA while others will be funded at 90 percent with the remaining 10 percent to be paid by the Board. Line 29 shows the estimated amount that will not be reimbursed by FEMA.

Estimated issuance costs related to the proposed bond issue amounts are shown on Line 30. The net End of Year Balance is shown on Line 32.

As demonstrated in Table 31, it is anticipated that current revenue sources will be adequate to readily finance both projected capital program requirements and estimated future operation expenses of the Drainage Department during the 2008-2012 study period examined herein.

Table 22
Drainage Department
Rainfall

Year	Year to Date (inches)												Deviation from Average
	January	February	March	April	May	June	July	August	September	October	November	December	
2003	0.12	6.20	10.85	16.24	18.56	36.35	45.52	49.05	51.55	54.79	59.80	61.91	2.65
Average (a)	4.53	9.12	14.32	19.20	23.98	29.67	36.15	42.00	47.71	50.88	54.63	59.26	
2004	3.34	11.44	12.43	20.73	28.11	38.42	43.20	47.38	48.45	54.00	60.08	62.84	3.55
Average (a)	4.52	9.14	14.30	19.21	24.02	29.75	36.21	42.05	47.72	50.91	54.67	59.29	
2005	3.65	12.68	16.54	23.02	27.03	31.32	42.94	57.49	58.35	58.41	59.64	62.60	3.25
Average (a)	4.60	9.14	14.39	19.25	24.05	29.67	35.13	42.12	47.53	54.18	54.72	59.35	
2006	2.60	5.32	5.57	8.73	9.49	11.65	20.05	26.45	29.34	32.37	35.31	45.86	(13.43)
Average (a)	4.58	9.23	14.33	19.24	24.01	29.69	36.22	42.13	47.74	50.90	54.64	59.29	
2007	4.12	5.93	7.31	9.12	17.63	22.06	29.72	31.36	35.78	47.40	48.61	53.13	(6.11)
Average (a)	4.58	9.20	14.27	19.15	23.95	29.63	36.16	42.04	47.64	50.87	54.58	59.24	

(a) Average of Year 1894 to Date.

Table 23
Drainage Department
Historical Revenues Received

	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
	\$	\$	\$	\$	\$
Three-mill Ad Valorem Tax	11,031,057	12,199,559	12,990,040	9,682,028	11,388,731
Six-mill Ad Valorem Tax	11,169,140	12,352,092	13,152,643	9,803,052	11,525,043
Nine-mill Ad Valorem Tax	16,735,885	18,508,104	19,707,787	13,686,249	17,271,271
Two-mill Ad Valorem Tax	7,424	5,192	1,407	3,699	120
Plumbing License and Inspection Fees	0	0	0	0	0
Interest Earned	966,684	1,259,621	2,539,391	3,571,415	4,663,955
Other	857,102	971,224	1,013,058	948,743	1,425,195
Total Revenue	<u>40,767,292</u>	<u>45,295,792</u>	<u>49,404,326</u>	<u>37,695,186</u>	<u>46,274,316</u>

Table 24

**Drainage Department
Historical Operation and Maintenance Expenses**

	2003	2004	2005	2006	2007
	\$	\$	\$	\$	\$
Management and General Expenses					
Administrative	761,832	1,417,324	(79,477)	1,540,850	2,026,248
Management Services Director	32,456	31,395	35,152	26,708	9,447
Building and Grounds and Support Services	2,012,076	2,142,492	1,970,916	1,401,622	1,536,920
Personnel Administration	155,117	160,352	140,723	105,314	131,787
Finance Administration	219,425	221,540	246,375	217,596	254,449
Information Systems	669,008	752,874	865,551	789,841	721,668
Purchasing	91,772	92,872	95,051	76,801	83,257
Total Management and General	3,941,686	4,818,849	3,274,291	4,158,732	4,763,776
Operations Expenses					
General Superintendent	106,109	137,791	81,407	58,127	69,548
Drainage Pumping and Central Control	5,198,587	5,448,217	6,322,322	5,137,257	5,994,057
Chief of Operations	36,287	37,202	35,742	25,400	27,543
Water Pumping and Power	3,308,905	4,260,920	5,830,473	8,948,644	7,797,775
Chief of Facilities Maintenance	41,022	39,706	42,042	21,619	23,597
Facilities Maintenance	1,220,339	1,227,592	1,479,832	1,295,357	1,438,726
Central Yard	850,339	891,602	893,468	713,516	915,088
Office of Chief of Network	53,077	62,037	40,100	32,148	126,553
Networks	2,221,412	2,283,389	2,100,297	1,640,000	2,272,004
Engineering	650,068	607,271	706,332	618,892	626,482
Total Operations	13,686,145	14,995,727	17,532,015	18,490,960	19,291,373
Other Expenses					
Special Accounts	524,886	634,506	705,482	824,875	831,999
Payroll Related Expenses	942,252	1,293,774	1,171,306	1,129,437	3,443,676
Overhead Allocation	(1,451,655)	(1,484,151)	(1,555,240)	(1,335,750)	(1,617,116)
Total Other	15,483	444,129	321,548	618,562	2,658,559
Total Operation and Maintenance (a)	17,643,314	20,258,705	21,127,854	23,268,254	26,713,708

(a) Source: Expenditure Analysis by Group Report.

Note: Historical operation and maintenance expenses do not include the non-cash portion of provision for claims as recorded in the Comprehensive Annual Financial Report. Estimates of future Water Department claims payable are included in Table 11.

Table 25

**Drainage Department
Capital Expenditures (a)
2007**

C.P. # Project	Actual Expenditures
	\$
Canals	
403 Improvements to Vehicular Bridges	113,203
418 Normal Extensions & Replacements	701,585
439 SWB Part Drng Tchoupitoulas Paving Project	33,951
471 C.O.E. Drainage Study	1,020,244
474 Terpsichore Canal	434,154
476 Hollygrove Canals	427,078
477 Eng. Design - Claiborne Manifold	111,286
486 Napoleon Canal Improvements	955,217
496 General DeGaulle Canal	2,947
497 Florida Ave. Canal - Mazant to Peoples	236,140
Total Drainage Canals	<u>4,035,805</u>
Pumping Stations	
511 Normal Extensions & Rep./Stations	1,965,611
574 Hurricane Katrina Expenses for Drainage System	5,989,438
Total Drainage Pumping Stations	<u>7,955,049</u>
600 Drainage Share of Power Projects	2,431,813
703 Drainage Reserve for Emergency	
800 Drainage Share of General Budget Items	<u>1,905,961</u>
Total Drainage Department	<u>16,328,627</u>

(a) Expenditures do not include proration of interest expense.

Table 26

**Drainage Department
Proposed Capital Improvements (a)**

C.P.#	Project	2008	2009	2010	2011	2012	Total
		\$	\$	\$	\$	\$	\$
Routine Capital Improvements							
400	Eng. & Insp. of Devlp. Installations	10,000	10,000	10,000	10,000	10,000	50,000
418	Normal Ext. & Replacements	2,870,000	110,000	110,000	110,000	110,000	3,310,000
511	Normal Ext. & Replacement - Stations	11,450,000	8,950,000	8,100,000	8,100,000	8,100,000	44,700,000
600	Drainage Share of Power Projects	11,321,000	6,047,000	1,252,000	239,000	239,000	19,098,000
703	Drainage Reserve for Emergencies						0
800	Drainage Share of General Budget Items	4,543,000	2,826,000	2,764,000	2,328,000	2,308,000	14,769,000
	Total Routine Capital Improvements	30,194,000	17,943,000	12,236,000	10,787,000	10,767,000	81,927,000
Major Capital Improvements							
403	Improvements to Vehicular Bridges		1,350,000	14,850,000	14,850,000	14,850,000	45,900,000
404	Washington Avenue Canal Improvements						0
439	Mains, Over 36" in Street Dept. Contracts	3,010,000	3,438,000	3,868,000	4,298,000	4,727,000	19,341,000
453	Improvements to Metairie Relief Canal	450,000	7,000,000				7,450,000
466	Louisiana Ave. Canal	300,000	100,000	34,250,000	1,850,000	1,250,000	37,750,000
471	SELA Program Management	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
472	Tchoupitoulas Corridor	165,000	5,350,000	3,800,000			9,315,000
474	Melpomene Street Canal	750,000					750,000
476	Hollygrove Canals	600,000					600,000
477	S. Claib Manifold - LA Ave. to Nashville Ave.	1,300,000					1,300,000
478	S. Claib - Lowerline to Monticello St.	600,000	30,525,000	650,000	35,525,000		67,300,000
483	Airline & Monticello Canal Improvements	250,000	8,475,000				8,725,000
484		1,400,000		16,750,000			18,150,000
486	Napoleon Canal Improvements	45,800,000	26,900,000	1,125,000	625,000	525,000	74,975,000
490	Orleans Ave. Canal			3,500,000	55,525,000	325,000	59,350,000
492	Donner Canal Improvements			2,400,000	31,025,000	525,000	33,950,000
495	Florida Ave. Canal, Peoples to Elysian Fields			250,000	32,000,000	1,500,000	33,750,000
496	De Gaulle Canal	10,300,000	1,500,000	67,625,000	25,000	275,000	79,725,000
497	Florida Ave. Canal, DPS #19 to Peoples	53,575,000	31,225,000	28,925,000	925,000		114,650,000
498	Dwyer Canal - Lamb to Jourdan	34,725,000	325,000	25,000	25,000		35,100,000
499	Jefferson Ave. Canal	300,000	28,625,000	425,000	27,825,000	27,625,000	84,800,000
512	Expansion of DPS #15				5,000,000	10,000,000	15,000,000
535	DPS #6	300,000		12,000,000	12,000,000		24,300,000
546	Expansion of DPS #4 West					25,908,000	25,908,000
550	Additions to DPS #1						0
554	Expansion of Dwyer DPS	200,000					200,000
555	DPS #7 Improvements						0
557	Flood Gate - DPS #16 Discharge Tunnel				500,000	500,000	1,000,000
568	Lakefront Pumping Station						0
570	Pritchard DPS						0
571	Harrison Ave. DPS		1,000,000		10,025,000	25,000	11,050,000
572	Robert E. Lee DPS		1,000,000		10,025,000	25,000	11,050,000
573	DPS #13 Improvements	2,200,000		32,050,000	950,000		35,200,000
575	New 60 Hertz Generator for DPS #7						0
	Total Major Capital Improvements	157,725,000	148,313,000	223,993,000	244,498,000	89,560,000	864,089,000
	Total Drainage Department Improvements	187,919,000	166,256,000	236,229,000	255,285,000	100,327,000	946,016,000

(a) The improvements for the 2008-2012 period are based on the budget dated December 19, 2007.

Table 27

**Drainage Department
Projected Participation by Others (a)**

C.P.#	Project	2008	2009	2010	2011	2012	Total
		\$	\$	\$	\$	\$	\$
418		100,000	100,000	100,000	100,000	100,000	500,000
453	Improvements to Metairie Relief Canal	108,000	1,680,000				1,788,000
466	Louisiana Ave. Canal			24,000,000			24,000,000
472	Tchoupitoulas Corridor	1,000,000	850,000				1,850,000
476	Hollygrove Canals						0
477	S. Claib - Manifold-Louisiana Ave to Nashville	600,000					600,000
478	S. Claib - Lowerline to Monticello St.		22,500,000		26,250,000		48,750,000
486	Napoleon Canal Improvements	33,750,000	19,500,000	825,000	450,000	375,000	54,900,000
490	Orleans Ave. Canal				41,625,000	225,000	41,850,000
492	Donner Canal Improvements				23,250,000	375,000	23,625,000
496	De Gaulle Canal	10,000,000	1,200,000	52,600,000			63,800,000
497	Florida Ave. Canal, DPS #19 to Peoples	53,000,000	21,300,000	21,275,000	325,000		95,900,000
498	Dwyer Canal - Lamb to Jourdan	33,500,000	300,000				33,800,000
499	Jefferson Ave. Canal		20,625,000	225,000	20,625,000	20,625,000	62,100,000
520	DPS #19 Generators						0
535	DPS #6	72,000		2,880,000	2,880,000		5,832,000
546	Expansion of DPS #4 West					20,726,000	20,726,000
554	Expansion of Dwyer DPS						0
568	Lakefront Pumping Station						0
571	Harrison Ave. DPS				7,425,000		7,425,000
572	Robert E. Lee DPS				7,425,000		7,425,000
573	DPS #13 Improvements			23,400,000	150,000		23,550,000
	Total	132,130,000	88,055,000	125,305,000	130,505,000	42,426,000	518,421,000

(a) The improvements for the 2008-2012 period are based on the budget dated December 19, 2007.

Table 28

**Drainage Department
Projected Operating Revenues**

Year	Ad Valorem Tax Revenue				Total
	Three-Mill	Six-Mill	Nine-Mill	Other	
	\$	\$	\$	\$	
2008	11,428,500	11,550,600	17,206,000	1,425,195	41,610,295
2009	11,542,800	11,666,100	17,378,100	1,425,195	42,012,195
2010	11,658,200	11,782,800	17,551,900	1,425,195	42,418,095
2011	11,774,800	11,900,600	17,727,400	1,425,195	42,827,995
2012	11,892,500	12,019,600	17,904,700	1,425,195	43,241,995

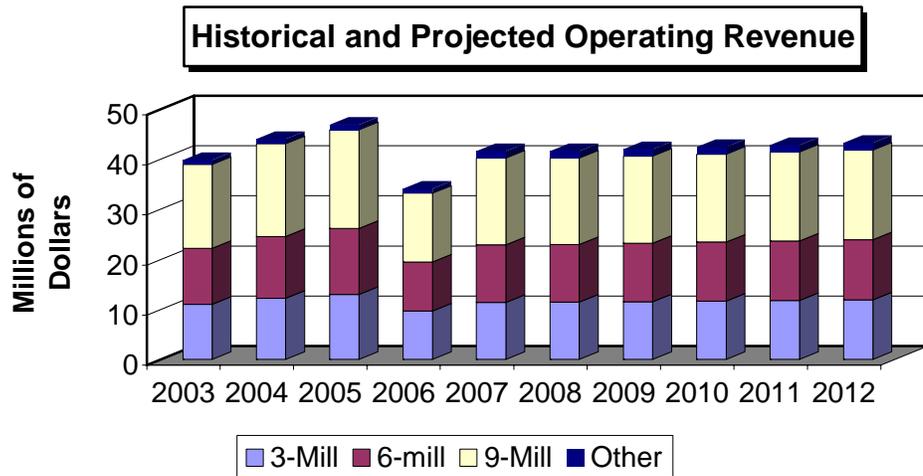


Table 29

**Drainage Department
Projected Operation and Maintenance Expenses**

	2008 (a)	2009	2010	2011	2012
	\$	\$	\$	\$	\$
Management and General Expenses					
Administrative	1,289,900	1,328,600	1,368,400	1,409,500	1,451,800
Management Services Director	10,400	10,700	11,000	11,300	11,700
Building and Grounds and Support Services	2,351,000	2,421,600	2,494,200	2,569,000	2,646,100
Personnel Administration	104,000	107,200	110,400	113,700	117,100
Finance Administration	222,700	229,400	236,300	243,400	250,700
Information Systems	944,300	972,700	1,001,900	1,031,900	1,062,900
Purchasing	131,200	135,200	139,200	143,400	147,700
Total Management and General	5,053,500	5,205,400	5,361,400	5,522,200	5,688,000
Operations Expenses					
General Superintendent	86,600	89,200	91,800	94,600	97,400
Drainage Pumping and Central Control	5,485,300	5,649,800	5,819,300	5,993,900	6,173,700
Chief of Operations	28,100	28,900	29,800	30,700	31,600
Water Pumping and Power	3,783,300	3,896,800	4,013,700	4,134,100	4,258,100
Chief of Facilities Maintenance	24,700	25,500	26,200	27,000	27,800
Facilities Maintenance	1,566,800	1,613,800	1,662,200	1,712,100	1,763,400
Central Yard	841,300	866,600	892,600	919,400	946,900
Office of Chief of Network	46,000	47,400	48,800	50,200	51,700
Networks	2,089,000	2,151,700	2,216,200	2,282,700	2,351,200
Engineering	690,600	711,300	732,700	754,600	777,300
Total Operations	14,641,700	15,081,000	15,533,300	15,999,300	16,479,100
Other Expenses					
Special Accounts	1,780,700	1,834,100	1,889,100	1,945,800	2,004,200
Payroll Related Expenses	1,740,100	1,792,300	1,846,100	1,901,500	1,958,500
Overhead Allocation	(1,428,000)	(1,470,900)	(1,515,000)	(1,560,400)	(1,607,300)
Total Other	2,092,800	2,155,500	2,220,200	2,286,900	2,355,400
Total Operation and Maintenance	21,788,000	22,441,900	23,114,900	23,808,400	24,522,500

(a) Represents the adopted operating budget as of December 19, 2007.

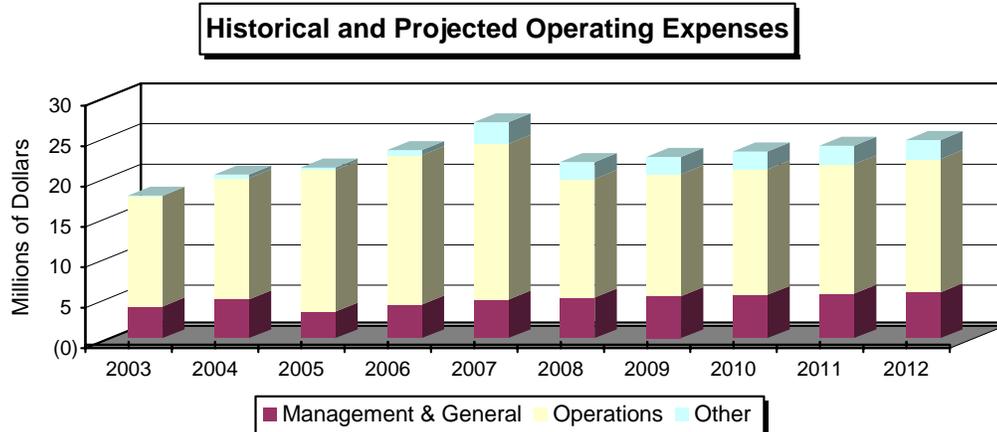


Table 30

**Drainage Department
Debt Service Requirements**

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
	\$	\$	\$	\$	\$
Nine-Mill Tax Bonds					
Series 1998	790,100	794,300	792,900	794,600	794,700
Series 2002	<u>1,404,800</u>	<u>1,400,200</u>	<u>1,391,000</u>	<u>1,403,100</u>	<u>1,412,300</u>
Total Nine-Mill Debt Service (a)	2,194,900	2,194,500	2,183,900	2,197,700	2,207,000
Proposed Bond Issues					
	Amount of Issue				
	<u>\$</u>				
2008	26,000,000	422,800	1,691,300	1,691,300	1,691,300
2009	75,000,000		1,219,700	4,878,900	4,878,900
2010	113,000,000			1,837,700	7,350,800
2011	127,000,000				2,065,400
2012	59,000,000				<u>959,500</u>
Total Proposed Debt Service		<u>422,800</u>	<u>2,911,000</u>	<u>8,407,900</u>	<u>15,986,400</u>
Total Debt Service		2,617,700	5,105,500	10,591,800	25,349,000

- (a) The Board has secured proceeds from the State of Louisiana's Gulf Opportunity Tax Credit Bond Loan Program which are intended to pay outstanding revenue bonds. The amount of the proceeds are shown on Line 13 of Table 32.

Table 31

**Drainage Department
Analysis of Ability of Forecasted Revenue to
Finance Projected Revenue Requirements**

Line No	2008	2009	2010	2011	2012	
	\$	\$	\$	\$	\$	
Operating Fund						
1	Three-Mill Ad Valorem Tax Revenue	11,428,500	11,542,800	11,658,200	11,774,800	11,892,500
2	Six-Mill Ad Valorem Tax Revenue	11,550,600	11,666,100	11,782,800	11,900,600	12,019,600
3	Nine-Mill Ad Valorem Tax Revenue	17,206,000	17,378,100	17,551,900	17,727,400	17,904,700
4	Other	1,425,195	1,425,195	1,425,195	1,425,195	1,425,195
5	Interest Income	478,800	743,500	995,600	770,400	279,300
6	Total Operating Revenue	42,089,095	42,755,695	43,413,695	43,598,395	43,521,295
7	Operation & Maintenance	21,788,000	22,441,900	23,114,900	23,808,400	24,522,500
8	Provision for Claims	4,632,800	1,909,600	1,966,900	2,025,900	2,086,700
9	Net Operating Revenue	15,668,295	18,404,195	18,331,895	17,764,095	16,912,095
Debt Service						
10	Existing	2,194,900	2,194,500	2,183,900	2,197,700	2,207,000
11	Proposed	422,800	2,911,000	8,407,900	15,986,400	23,142,000
12	Subtotal	2,617,700	5,105,500	10,591,800	18,184,100	25,349,000
13	Gulf Opportunity Zone Act Loan	(534,900)	0	0	0	407,600
14	Total Debt Service	2,082,800	5,105,500	10,591,800	18,184,100	25,756,600
15	Special Community Disaster Loan Payable	0	0	0	23,477,500	0
16	Transfer to Construction	5,000,000	5,000,000	0	0	0
17	FEMA Federal Assistance Fees	(382,800)	(382,800)	(382,800)	0	0
18	Net Annual Balance	8,968,295	8,681,495	8,122,895	(23,897,505)	(8,844,505)
19	Beginning of Year Balance	10,245,500	19,213,795	27,895,290	36,018,185	12,120,680
20	End of Year Balance	19,213,795	27,895,290	36,018,185	12,120,680	3,276,175
Capital Projects Funding						
21	Funds on Hand	25,809,200	687,800	997,000	857,900	661,100
22	Revenue Bond Proceeds	26,000,000	75,000,000	113,000,000	127,000,000	59,000,000
23	Operation Fund Transfers	5,000,000	5,000,000	0	0	0
24	Participation by Others	132,130,000	88,055,000	125,305,000	130,505,000	42,426,000
25	Interest Income	254,500	77,100	111,800	123,200	59,700
26	Total Funds Available	189,193,700	168,819,900	239,413,800	258,486,100	102,146,800
27	Routine Annual	30,194,000	17,943,000	12,236,000	10,787,000	10,767,000
28	Major Capital Additions	157,725,000	148,313,000	223,993,000	244,498,000	89,560,000
29	FEMA Cost Share	66,900	66,900	66,900	0	0
Issuance Costs						
30	Bond Issuance Expense	520,000	1,500,000	2,260,000	2,540,000	1,180,000
31	Total Application of Funds	188,505,900	167,822,900	238,555,900	257,825,000	101,507,000
32	End of Year Balance	687,800	997,000	857,900	661,100	639,800

Assessment of East Bank Sewerage Stations					
ID	Date	Facility Name	Route	Location	Status
1	05/14/2008	Chickasaw	A	Chickasaw at Metropolitan	Portable pump to be used until mechanical repairs are made.
2	05/14/2008	K-Mart	A	Desire at Gentilly	Portable pump; station rehabilitation not started to date.
3	05/14/2008	Station 23	A	4500 Mithra	One pump out of service
4	05/14/2008	Station 17	A	4975 Spain at Selma	One pump out of service
5	05/14/2008	Station 22	A	5705 Perlita	Both pumps out of service, portable pump in use
6	05/14/2008	Station 19	A	3730 Jumonville at Milton	One pump out of service
7	05/14/2008	Station 21	A	6670 Memphis At Filmore	One pump out of service
8	05/14/2008	Station 18	A	Vicksburg at Florida	One pump out of service
9	05/14/2008	City Park	A	5701 Marconi Drive	One pump out of service
10	05/14/2008	Station 20	A	328 37th Street	One pump out of service
11	05/14/2008	Station 4	A	5899 Fleur de Leis	Station electrical rehabilitation completed; suction line needs to be replaced and new wet well is currently being installed. Portable pump to be used until mechanical repairs are made.
12	05/14/2008	Lakewood South	A	Country Club Drive near Marconi	Both pumps out of service, portable pump in use
13	05/14/2008	Station 6	A	242 S Solomon at Palmyra	One pump out of service
14	05/14/2008	Station 3	A	8720 Olive near Eagle	Both pumps out of service, portable pump in use
15	05/14/2008	Station 1	A	7336 Cohn	Both pumps out of service, portable pump in use
16	05/14/2008	Station 14	A	4000 Clara	Five pumps out of service, portable pump in use

Assessment of East Bank Sewerage Stations					
ID	Date	Facility Name	Route	Location	Status
17	05/14/2008	Station 5	A	3912 Erato St	Both pumps out of service, portable pump in use
18	05/14/2008	Station 15	A	2431 Palmyra near Rocheblave	Three pumps out of service, four total pumps.
19	05/14/2008	Station 8	A	Corner of N Broad and Toulouse	Both pumps out of service, portable pump in use
20	05/14/2008	Station 9	A	2540 Annette at Law	In service
1	05/13/2008	Station 16	B	3751 N Miro at Pauline	One pump out of service
2	05/13/2008	Station 24	B	5027 N Tonti at Forstall	Portable pump; both pumps out of service.
3	05/13/2008	Station 25	B	2245 Charbonnet	Portable pump; both pumps out of service.
4	05/13/2008	Station 26	B	2244 St Maurice at Tonti	Portable pump; both pumps out of service.
5	05/14/2008	Southern Scrap	B	Southern Scrap Rd Harbor Rd	Portable pump; both pumps out of service.
6	05/13/2008	France and Florida	B	2701 France Road	Portable pump; both pumps out of service.
7	05/13/2008	MECO-Mechanical Equipment Company	B	3855 France Road	Portable pump; both pumps out of service.
8	05/13/2008	Victoria at Gentilly	B	3620 Victoria	Portable pump; both pumps out of service.
9	05/13/2008	American Marine	B	4045 Jourdan Rd	Portable pump; both pumps out of service.
10	05/13/2008	Plum Orchard	B	7300 Chef Menteur Highway	Portable pump; both pumps out of service.
11	05/13/2008	Dodt	B	8118 Chef Menteur Highway	Portable pump; both pumps out of

Assessment of East Bank Sewerage Stations					
ID	Date	Facility Name	Route	Location	Status
					service.
12	05/13/2008	Castle Manor	B	4950 Gwain at Dwyer	Both pumps are in service.
13	05/13/2008	Cerise	B	5001 Cerise	Portable pump; both pumps out of service.
14	05/13/2008	McCoy	B	McCoy at Gentilly	One pump out of service
15	05/13/2008	Amid	B	6800 Almonaster Road	Portable pump; both pumps out of service.
16	05/14/2008	Lakeland Terrace	B	5057 Warren Drive	Portable pump; both pumps out of service.
17	05/14/2008	Lake Forest	B	10451 Lake Forest Blvd	Portable pump; both pumps out of service.
18	05/14/2008	Wright Road	B	Wright Road at Lake Forest	Portable pump; both pumps out of service.
19	05/14/2008	Bullard	B	5501 Bullard Road	Portable pump; both pumps out of service.
20	05/13/2008	Wilson	B	7709 Wilson Avenue	Portable pump; both pumps out of service.
21	05/13/2008	America	B	6789 Dwyer Road at Westlake	Portable pump; both pumps out of service.
22	05/13/2008	Pines Village	B	6155 Dwyer Road at Foch	Both pumps are in service.
23	05/13/2008	Crowder	B	5500 Crowder Road	Portable pump; both pumps out of service.
24	05/14/2008	Station B	B	4725 St Claude Avenue	Both pumps are in service.
25	05/14/2008	Station A Municipal Auditorium	B	1321 Orleans Avenue	Two pumps out of service
1	05/14/2008	Venetian Isles # 2	C	20711 Old Spanish Trail	Portable pump; both pumps out of service.

Assessment of East Bank Sewerage Stations

ID	Date	Facility Name	Route	Location	Status
2	05/14/2008	Industrial Parkway	C	4200 Industrial Parkway	Portable pump; both pumps out of service.
3	05/14/2008	Folgers	C	14601 Gentilly Boulevard	Portable pump; both pumps out of service.
4	05/14/2008	Michoud	C	4400 Michoud Boulevard	Portable pump; both pumps out of service.
5	05/14/2008	Blvd "X"	C	4433 Chef Menteur Highway	In service
6	05/14/2008	Alcee Fortier	C	Alcee Fortier Blvd at the Levee	In service
7	05/14/2008	Village De Lest	C	11324 Dwyer	Portable pump; both pumps out of service.
8	05/14/2008	Willow Brook	C	Willowbrook off of Michoud	One pump in service
9	05/14/2008	Oak Island	C	14201 Michoud Blvd	One pump in service
10	05/14/2008	Eastover	C	6051 Eastover Drive	Both pumps in service
11	05/14/2008	Paris Road	C	Dwyer West of Paris Road	Both pumps in service
12	05/14/2008	Shorewood	C	14441 Morrison Road	Portable pump; both pumps out of service.
13	05/14/2008	Briarwood Station	C	13701 Morrison Road	Portable pump; both pumps out of service.
14	05/14/2008	Liggett	C	12501 Morrison Road	Portable pump; both pumps out of service.
15	05/14/2008	Berg	C	11501 Morrison Road	Portable pump; both pumps out of service.
16	05/14/2008	Weber	C	10141 Morrison Road	Portable pump; both pumps out of service.
17	05/14/2008	Burke	C	9001 Morrison Road	Portable pump; both pumps out of service.
18	05/14/2008	Lawrence	C	7900 Morrison Road	Portable pump; both pumps out of service.

Assessment of East Bank Sewerage Stations					
ID	Date	Facility Name	Route	Location	Status
19	05/14/2008	Lamb	C	6450 Morrison Road	Portable pump; both pumps out of service.
20	05/14/2008	Gentilly Oaks	C	5000 Papania Road at Vienna	Both pumps in service

Assessment of West Bank Sewerage Stations

ID	Date	Facility Name	Location	Status
1	05/23/2008	Horace	3301 Lawrence Street	Both pumps in service
2	05/23/2008	Holiday	2799 Holiday Drive	One pump out of service; motor needs to be repaired.
3	05/23/2008	Huntlee	3201 Huntlee	Both pumps in service
4	05/23/2008	Eton	3440 Eton Street	Both pumps in service
5	05/23/2008	Aurora	6000 Carlisle Court	Both pumps in service
6	05/23/2008	Blair	3800 Blair Street	Both pumps in service
7	05/23/2008	Lower Coast	3700 Old Woodland	Both pumps in service
8	05/23/2008	English Turn I	2201 Stanton Road	Both pumps in service
9	05/23/2008	English Turn II	123 ½ Oak Alley	Both pumps in service
10	05/23/2008	English Turn III		Both pumps in service
11	05/23/2008	Woodland	4150 Woodland Drive	Both pumps in service
12	05/23/2008	Park Timbers	4100 Lennox Blvd	One pump out of service.
13	05/23/2008	Tall Timbers	3800 Tall Pines Drive	Both pumps in service
14	05/23/2008	Forest Isle	5631 West Forest Park Drive	Portable pump being used, both sewer pumps are operational.
15	05/23/2008	Garden Oaks	3201 Memorial Park Drive	One pump out of service.
16	05/23/2008	Memorial	2501 Memorial Park Drive	Portable pump
17	05/23/2008	Bridge Plaza	2914 Vespasian Street	One pump in service.

Assessment of East Bank Drainage Stations				
ID	Date	Facility Name	Location	Status
1	05/19/2008	Station 6	345 Orpheum	One pumps out of service
2	05/19/2008	Station 4	5700 Warrington Drive	One pump out of service
3	05/21/2008	Station 12	Robert E Lee and Ponchartrain Boulevard	In service
4	05/21/2008	I-10 Pump Station	I-10 Service Road	In service
5	05/19/2008	St. Charles Station 16	Danube Road at Wales	One pump out of service
6	05/19/2008	Citrus Station 10		In service
7	05/19/2008	Station 14	Oneida at Haynes	One pump out of service; roof damage.
8	05/19/2008	Maxent	Alcee Fortier	Both pumps out of service
9	05/21/2008	Industrial Boulevard	Industrial Boulevard	Two pumps out of service
10	05/21/2008	Grant Street	Grant Street at Gentilly Boulevard	In service
11	05/19/2008	Amid Station 20	6300 Intercoastal Waterway at Terminal Road	One pump out of service
12	05/19/2008	Elaine		Both pumps out of service
13	05/21/2008	Station 5	Florida Avenue	One pump out of service
14	05/21/2008	Station 3	2251 N Broad Street	Two pumps out of service
15	05/21/2008	Station 7	5741 Orleans Avenue at Marconi Drive	One pump out of service
16	05/21/2008	Station 2	444 N Broad Street	In service
17	05/21/2008	Station 1	2501 S Broad Street	Two pumps out of service
18	05/21/2008	Canal Boulevard	5500 Canal Boulevard	In service
19	05/21/2008	Oleander	9400 Oleander	In service
20	05/21/2008	Pritchard	2901 Monticello	In service
21	05/21/2008	Station 19	4500 Florida Avenue	One pump out of service
22	05/21/2008	Station 17	2801 Florida Avenue	In service

Assessment of West Bank Drainage Stations

ID	Date	Facility Name	Location	Status
1	05/21/2008	Station 11	5301 East Sixth Street	In service
2	05/21/2008	Station 13	4201 Tall Spruce Drive	One pump out of service



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