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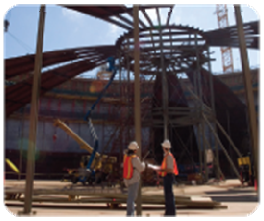

Report on Operations for 2006

Sewerage & Water Board of New Orleans, Louisiana

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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

BLACK & VEATCH
Building a world of difference.

February 27, 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 2006. 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 2007 through 2011. 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 2006.

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

Anna White
Project Manager

Enclosure

Contents

Introduction 1
- Purpose and Scope 1
- Definitions 1
- History 1
  - Water Department 2
  - Drainage Department 2
  - Sewer Department 4
  - General 5
- Sources of Financial Data 5
- Summary of Findings 5
  - Water Department 6
  - Sewerage Department 7
  - Drainage Department 7

Facilities Evaluation 9

Operation, Maintenance, and Reconstruction 9
- Introduction 9
  - Staffing Issues 10
- Water Purification Plants 10
  - Carrollton Water Purification Plant 11
  - Algiers Water Purification Plant 13
- Water Quality Laboratory at the Carrollton Plant 15
- Water Pumping and Power 16
- Sewerage Treatment Plants 17
  - East Bank Wastewater Treatment Plant 18
  - West Bank Wastewater Treatment Plant 20
- Sewage Pumping Stations 21
- Maintenance 24
- Engineering 24
- Networks 25
- Support Services 26
  - Fleet Management 26
  - Environmental Affairs Department 27
- Status of the Consent Decree 28
- Summary of Findings 29

Water Department ... 31
- Adherence to Water Revenue Bond Resolution Requirements ... 31
  - Powers as to Bonds and Pledge ... 31
  - The Extension of Payment of Bonds ... 31
  - The Establishment of Rates and Charges ... 32
  - The Sale, Lease, and Encumbrance of the System ... 32
  - The Operation, Maintenance, and Reconstruction of the System ... 32
  - Insurance and Condemnation ... 33
  - The Preparation of an Annual Operating Budget ... 33
  - The Preparation of the Capital Improvement Budget ... 34
  - Employment of Consulting Engineer ... 34
  - The Maintenance of Accounts and Reports ... 34
  - Issuance of Additional Bonds ... 35
- 2006 Water Department Operations ... 35
  - Water Use ... 35
  - Operating Revenues ... 36
  - Nonoperating Revenues ... 36
  - Operation and Maintenance Expenses ... 37
  - Capital Budget and Expenditures ... 37
  - Summary of Operations ... 37
- Proposed Capital Improvement Program ... 38
- Ability to Finance Proposed Capital Expenditures ... 38
  - Operating Revenues ... 38
  - Other Revenue Sources ... 38
  - Operation and Maintenance Expenses ... 39
  - Debt Service Requirements ... 39
  - Adequacy of Revenues to Finance Proposed Capital Improvements ... 39

Sewerage Department ... 54
- Adherence to Sewerage Service Revenue Bond Resolution ... 54
- 2006 Sewerage Department Operations ... 54
  - Operating Revenues ... 55
  - Nonoperating Revenues ... 55
  - Operation and Maintenance Expenses ... 55
  - Capital Budget and Expenditures ... 56
  - Summary of Operations ... 56
- Proposed Capital Improvement Program ... 56

Ability to Finance Proposed Capital Expenditures 57
Operating Revenues 57
Other Revenue Sources 57
Operation and Maintenance Expense 58
Debt Service Requirements 58
Adequacy of Revenues to Finance Proposed Capital Improvements 58
Drainage Department 72
2006 Drainage Department Operations 72
Revenues 72
Operation and Maintenance Expenses 73
Capital Budget and Expenditures 73
Summary of Operations 73
Proposed Capital Improvement Program 74
Ability to Finance Proposed Capital Expenditures 74
Revenues 74
Operation and Maintenance Expenses 75
Debt Service Requirements 75
Adequacy of Revenues to Finance Proposed Capital Improvements 75

List of Tables

Table 1 Insurance in Force as of December 31, 2006....43

Table 2 Water Department - Historical and Projected Sales and Average Number of Customers....44

Table 3 Water Department - Existing Water Rates....45

Table 4 Water Department - Statement of Historical Revenues....46

Table 5 Water Department - Historical Operation and Maintenance Expenses....47

Table 6 Water Department - Capital Expenditures - 2006....48

Table 7 Water Department - Proposed Capital Improvements....49

Table 8 Water Department - Projected Operating Revenues....50

Table 9 Water Department - Projected Operation and Maintenance Expenses....51

Table 10 Water Department - Debt Service Requirements....52

Table 11 Water Department - Analysis of Ability of Forecasted Revenue to Finance Projected Revenue Requirements....53

Table 12 Sewerage Department – Historical and Projected Billed Volumes and Average Number of Customers....62

Table 13 Sewerage Department - Existing Sewer Rates....63

Table 14 Sewerage Department - Statement of Historical Revenues....64

Table 15 Sewerage Department - Historical Operation and Maintenance Expenses....65

Table 16 Sewerage Department - Capital Expenditures – 2006....66

Table 17 Sewerage Department - Proposed Capital Improvements....67

Table 18 Sewerage Department - Projected Operating Revenues....68

Table 19 Sewerage Department - Projected Operation and Maintenance Expenses....69

Table 20 Sewerage Department - Debt Service Requirements....70

Table 21 Sewerage Department - Analysis of Ability of Forecasted Revenue to Finance Projected Revenue Requirements....71

Table 22 Drainage Department – Rainfall....79

Table 23 Drainage Department - Historical Revenues Received....80

Table 24 Drainage Department - Historical Operation and Maintenance Expenses 81

Table 25 Drainage Department - Capital Expenditures – 2006......................................82

Table 26 Drainage Department - Proposed Capital Improvements 83

Table 27 Drainage Department - Projected Participation by Others 84

Table 28 Drainage Department - Projected Operating Revenues...................................85

Table 29 Drainage Department - Projected Operation and Maintenance Expenses.......86

Table 30 Drainage Department - Debt Service Requirements..87

Table 31 Drainage Department - Analysis of Ability of Forecasted Revenue to Finance Projected Revenue Requirements 88

List of Figures

Figure 1. Carrollton Water Purification Plant....11

Figure 2. Sedimentation Basin G3 Overhaul....12

Figure 3. Filters at Carrollton....13

Figure 4. Algiers Water Purification Plant....14

Figure 5. Water Quality Laboratory....15

Figure 6. EWOCDS Equipment....16

Figure 7. Cracks in Deck....18

Figure 8. RAS Pump Out for Repair....19

Figure 9. Grease Tank Out of Service....20

Figure 10. Repaired Pumps....22

Figure 11. Portable Pumps & Generators....23

Figure 12. Drainage Station Pumps....23

Figure 13. New Equipment....27

Report on Operations for 2006 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, 2006. 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, 2006, $42,510,000 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.

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 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 will remain at that level at least through 2006.

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 the 1982 nine-mill bonds and 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, 2006, the outstanding balance was $7,100,000. 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, 2006 to $24,905,000.

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 remains at this level at least through 2007. 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.

Sewer 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; $5,500,000 revenue bonds in 2003; and $33,000,000 revenue bonds, $25,200,000 Bond Anticipation Notes (BANs), and $111,800,000 Refunding BANs were issued in 2004. The 2004 BANs were defeased by the $137,000,000 Refunding BANs Series 2005A. 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. During 2006, $40,493,073 of the $77,465,247 available for the Board was borrowed. 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 $189,465,000 as of December 31, 2006.

General

The Board provides free water and sewer services to the City of New Orleans and its public institutions from which no revenue is derived as mandated by state law in accordance with R.S. 33:4096 and R.S. 33:4121, respectively. During 2005, the Board provided 642,988,200 gallons of water free of charge to agencies of the City of New Orleans. The value of this free water, at current rates, is $1,159,414.02. The value of the sewerage charges is $2,243,882.62.

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 5,757,000 gallons or 3,203,200 above its annual "cap" of 2,553,800 gallons. City Park used 78,508,400 gallons or 156,815,000 below its annual "cap" of 235,323,400 gallons. Audubon Park used 96,048,600 gallons or 143,951,400 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 2006. 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 2006 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 2006 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, 2006, $40,494,073 of the $77,465,247 available to the Board had been borrowed. As a result of this agreement, the Board's 2006 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2006.

Summary of 2006 Operations

Based upon a tabulation of water bills rendered during the year, the Water Department provided water service to an average of 124,027 regular billed customers and 920 governmental accounts which are served without charge. According to the December 31, 2006 Comprehensive Annual Financial Report, of the 49,087.2 million gallons of water pumped by the Department during the year, 12,984.5 million gallons were sold, 434.9 million gallons were metered to customers without charge, treatment plan process water totaled 233 million gallons, and unmetered uses accounted for about 35,434.8 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 decreased approximately 10 percent from $41,664,942 in 2005 to $37,494,628 in 2006 due to the effects of Hurricane Katrina. Operation and maintenance expenses (excluding claims paid) decreased from $52,945,995 in 2005 to $41,785,046 in 2006. Deducting debt service payments of $3,767,524 and claims of $185,283 left a negative balance of $8,243,225, unadjusted for depreciation.

Ability to Finance Future Operations and Proposed Improvements

A summary of projected financial operations of the Water Department for the period 2007 through 2011 is shown in Table 11. Revenues shown on Line 1 of Table 11 are based on rates that became effective July 18, 2002. 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. It is anticipated that the Water Department will continue to maintain a deficit balance in the operating fund through 2011 as shown on Line 29.

Because the amount of bonds that can be issued is limited by the debt service coverage tests, issuance of Bond Anticipation Notes (BANs) is required to fund the adopted capital program. Revenue from issuance of BANs is shown on Line 32 of Table 11. Interest paid on outstanding BANs is shown on Line 23, costs associated with issuance of BANs are shown on Line 41, and redemption of the BANs is shown on Line 43.

Sewerage Department

Sewerage Service Revenue Bond Resolution Requirements

Sewerage and Water Board financial operations for 2006 have complied with the requirements set forth in the 1997 and Supplemental Sewer Revenue Bond Resolutions.

Summary of 2006 Operations

Sewerage Department revenues for 2006 of $67,931,654 increased approximately 9.1 percent from $62,243,406 in 2005. Operation and maintenance expenses (excluding claims paid) decreased from $34,875,018 in 2005 to $33,037,888 in 2006. After debt service payments of $18,138,651 and claims of $397,189, a balance of $16,357,926 was available for capital related expenditures in 2006, unadjusted for depreciation.

Ability to Finance Future Operations and Proposed Improvements

A summary of projected financial operations of the Sewerage Department for the period 2007 through 2011 is shown in Table 21. Revenues shown on Line 1 of Table 21 are based on rates that became effective July 1, 2006. This table illustrates that the existing schedule of rates will generate sufficient revenue to meet required debt service coverage tests and projected operating and capital expenditures during the study period.

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

Drainage Department

Summary of 2006 Operations

Total revenues received from all sources including interest income and two-mill ad valorem tax receipts totaled $37,695,186 in 2006, a decrease of approximately 23.7 percent from $49,404,326 reported for the same sources in 2005. Total operation and maintenance expenses increased about 10.1 percent from $21,127,854 in 2005 to $23,268,254 in 2006. After debt service payments of $2,193,701 and claims of $2,076,185, a balance of $10,157,046 was available for capital related expenditures in 2006, unadjusted for depreciation.

Ability to Finance Future Operations and Proposed Improvements

An analysis of financial operations projected for the Drainage Department for the period 2007 through 2011 is summarized in Table 31. Revenue from the three-mill, six-mill, and nine-mill ad valorem taxes may be used for operating expenses, debt service, or capital expenditures.

The analysis indicated that current revenue sources are adequate to meet operation and maintenance expenses and total debt service on the 1998 and 2002 bond issues for each year of the study period as well as debt service on new bond issues of $38,000,000 in 2007; $59,000,000 in 2008; $61,800,000 in 2009; $65,700,000 in 2010; and $28,600,000 in 2011. 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 2005 Comprehensive Annual Financial Report. In 2006, approximately 79 million kWh of power was purchased and 37.4 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 7.5¢ per kWh in 2002 to about 19.8¢ per kWh in 2006. During the same period, the Board's unit cost for generated power has increased from about 21.8¢ per kWh to about 34¢ per kWh. The cost of Board generated power is almost 1.7 times higher than that of purchased power. The cost of fuel to generate power in 2006 amounted to approximately 38.9¢ per kWh.

In conducting our analyses and in forming an option 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.

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 July 30, 2007 to August 10, 2007. 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 Sewerage and Water 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 120 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 10 million gallons per day 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 Sewage Treatment Plant has been upgraded to increase capacity to accommodate a growing population, and at the East Bank Sewage Treatment Plant modifications were made 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.

Board facilities sustained significant damage from the flooding that followed Hurricane Katrina. Damage to infrastructure facilities included loss of electrical power, flooding of treatment facilities, damage to water distribution lines, collection sewers, sewer pump stations, and the power plant. It was the first time in the Board's history that there was almost total failure of all systems. The following sections provide a detailed account of the condition of existing facilities after the storm and the repair and rehabilitation efforts undertaken to-date.

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. Areas that were significantly impacted by understaffing at the time of our site visits were engineering, facilities maintenance, networks, pumping and power, drainage and sewage pumping, water purification and the water analytical laboratory at the Carrollton plant. 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 expire. 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. Although the Board has closed all vacant positions as the first step in its effort to cut costs, the Planning and Budget Director indicated that hiring would not be a problem when a qualified employee was found.

Water Purification Plants

The Black & Veatch team was accompanied on the facility tours by the Assistant 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, was purifying approximately 115 MGD of water for the East Bank of Orleans Parish prior to the levee failure caused by Hurricane Katrina.

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 fluorosilicic 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 120 MGD of water in spite of serving only about 60 percent of the pre-Katrina population. The additional water treated is driving up the costs for chemicals. The majority of the chemical suppliers have not been cognizant of the financial struggles of the Board. (Because the City was evacuated during the storm and only a fraction of the citizens have returned, post-Katrina Board revenue has dropped to approximately 60 percent of pre-

Katrina levels). Some vendors have stopped chemical supplies to the Board until the outstanding payments are made. As a result, the Board has had to find other suppliers for products and services that are needed for water purification and has to pay spot prices for chemicals rather than operate under long term contracts with chemical suppliers.

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.

Many of the plant operations personnel have returned following the storm; however, the plant is still not adequately staffed for continuous operation. The plant may lose a few employees to retirement in the relatively near future.

The Hurricane Katrina-related damages and the damages from flood waters at the Carrollton water purification plant have been repaired and facilities have been returned to pre-Katrina condition. Problems persist currently in maintaining adequate pressure in the distribution system. Normal system pressure is 70 psi, but has been limited to 60 psi to control the loss of water through leaks in the distribution system.

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.

- 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.
- Flow metering of finished water was damaged in the hurricane. Currently the Board is investigating using the flow meters which Networks has installed to monitor flow rate rather than create unnecessary redundancy in flow measurement.
- A second sludge line to the river is currently in the design phase and should be complete soon.
- The L4 flocculation equipment and mono-rake system need repair work, such as repair of drive system as 4 of the 10 drive units are out of service and there are broken paddle supports.
- Rehabilitation of filters has been suspended due to severely limited funds. The consequence of rehabilitation suspension has increased the frequency of filter backwashing.
- Currently, the anhydrous ammonia storage system is under contract to be rehabilitated.

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 12 MGD of water and is serving the predominantly residential West Bank portion of the Parish. The plant suffered only minimal damage during Hurricane Katrina. The plant operations were not interrupted and the system remained certified throughout the storm event.

Figure 4. Algiers Water Purification Plant

The facility has also purchased a sodium hypochlorite generation system, which is to be installed in the near future. This system will replace chlorine gas as the disinfection agent at the plant. 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 which will be completed shortly.
- 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.
- Improvements to the ferric chemical feed system are in progress and should be completed soon.
- All valves have been changed on the chlorine system and upgrades have been completed on the chlorine system.
- Lime slaker 3 requires repairs. Currently, the system is manually run until repairs are completed.

Most of the operations personnel live in close proximity of the plant and only a few personnel did not return to employment at the Board as a result of the storm. Increased staffing is required to maintain the plant. All hurricane related damage at the plant has been repaired and the equipment is operating effectively.

Water Quality Laboratory at the Carrollton Plant

The water quality laboratory conducts daily analyses of the quality of river water 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 samples are also 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. 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

Significant improvements have been made in the equipment of the laboratory. The GC mass spec has been upgraded and is currently in operation.

Currently, the laboratory is staffed with one microbiologist, one chemist, two technicians, and two sample collectors. Regulations require the lab to have at least two microbiologists for maintaining State certification for bacteriological sampling. Low pay and past residency requirements made it difficult to hire and retain qualified staff.

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 five boilers (boiler 2 is out of service) 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 plant is 41 MWs as Turbine 4 (20 MW) is undergoing repairs. A new Boiler No. 2 is currently being installed and is expected to be commissioned by May 2008. Once turbine 4 and the new boiler are in service the plant will be at the original potential capacity of 61 MW. Other systems repaired since the hurricane include the condenser leaks, turbine No. 5 oil system, and the motor control center. Additional work at the 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 final one is scheduled to be reconditioned, but waiting on funds.

All roof damage has been repaired at the main power plant although some damage is still noted at the West Bank Power Control building and River Station No. 1. No. 1 raw water pump at the New River Station has been returned to service and the other two pumps at this facility will receive maintenance in the near future.

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. Plant personnel suggest considering a dike system around the power building to prevent the basement from flooding in the future.

In the aftermath of Katrina, the diesel generators at the Algiers generating station were able to provide backup power for the operation of the Algiers purification plant during occasional failure of Entergy power. The 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. One of the generators that were taken offline for repairs prior to the hurricane is still being worked on. Contracts have also been issued for roof repairs, but a shortage of funding is delaying the project.

All 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 flood waters, but have been repaired.

The water pumping and power department had 71 employees prior to the hurricane. Currently, only 55 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, and therefore the belt presses are processing solids and the dewatered solids are trucked to the landfill.

The plant suffered extensive damage from the strong winds and flood waters. The following is a list of damage from the hurricane that has been repaired.

- All buildings have been repaired except a new control room is under construction and should be completed in six months. The administration building containing the laboratory was destroyed by flood waters and demolished. The lab functions are being done off site and the staff are occupying trailers.

- Damage to structures and equipment from salt water. 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 are in the process of repair, which will be reimbursed by FEMA.

Figure 7. Cracks in Deck

- Extensive damage to incinerators. Both the Fluid Bed Incinerators (FBI) and Multiple Hearth Incinerators (MHI) were severally damaged by Hurricane Katrina. The FBI will be rebuilt at a cost of approximately $3.5 million over a 10-12 month time period and will be paid for by FEMA. The cost to repair the MHI is in excess of $9 million. Since the equipment has exceeded its life expectancy it will not be rebuilt. 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. The Board will continue to landfill biosolids until an alternative is identified and implemented.

- Currently, one of the return activated sludge pumps is out of service. Repairs are underway and should be completed and the pump reinstalled soon.

Figure 8. RAS Pump 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 and one of the scum pits was clogged and maintenance was currently working on the clog. The scum and grease tank should be repaired so the grease and scum are removed from the system rather than sending the scum in a circle within the plant.

Figure 9. Grease Tank Out of Service

- Other repairs currently needed include electrical repairs at the oxygen plant and the south RAS pump house. Repairs are scheduled to be completed within the next couple of months.

- At present an RFP 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 20 tons of oxygen a day.

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. There is a significant amount of inflow and infiltration in the collection system requiring treatment at the plant. Effluent quality is adequate and the plant has experienced no violations within the last year.

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 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.

The West Bank facility suffered only wind damage from the hurricane. The following items were damaged, but have been repaired and are back in service.

- The fiberglass cover of the solids thickener was damaged by the winds and has been repaired. The mechanical components of the thickener also sustained some damage and have been repaired. Solids are pumped to the gravity thickener for thickening and then trucked off site.
- The launder covers on the final clarifiers were blown off by the winds. The covers prevent algae growth in the effluent channels. The covers have been replaced and are functioning as intended.
- All damage to buildings has been repaired.
- The lost media in the trickling filters due to the storm has been replaced and the trickling filters are operating as intended and meeting current loads to the plant.
- Bar screen No. 3 is out of service due to a motor failure. Currently, the motor is out for repair, but this is not impacting current plant operations and the bar screen is expected to be back in service within the month.

The monthly average TSS and BOD influent concentration are approximately 150 mg/L and 150 mg/L, respectively. Hydrogen peroxide previously added at the sewer force main by the Blair sewage pumping station to control plant odors prior to the hurricane has been suspended and at present a different chemical is being added to various points in the collection system. Odor control at the plant has been retained with improved treatment and less risk. Treatment at the plant is very good for a trickling filter plant as the monthly average effluent TSS and BOD concentration has been approximately 15 mg/L and 15 mg/L, respectively.

The plant capacity is adequate for the long term needs of the area. Currently contracts are being prepared to install new belt filter presses for solids handling and a sodium hypochlorite storage facility to eliminate the need for liquid chlorine. Staffing levels are adequate and the facility and grounds are well maintained.

Sewage 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.

A vast majority of the east bank and several of the west bank pumps sustained mechanical and electrical damage from the flood waters and require complete overhauls.

Initially, the Board's rehabilitation of the pumps included checking and greasing bearings, cleaning motors with steam, and then baking them. This method was unsuccessful and resulted in many pump motor and bearing failures. As a result, the board changed the rehabilitation process to a three step process that includes electrical repair, bearing repair, and flood proofing of stations. About 40% of the electrical work has been completed. Bearing repair work has not been initiated at most stations. The final phase of flood proofing has not started to date.

The repairs to the sewerage 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 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 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 is paid for 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 ability 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 suffered significant damage from the 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. The estimated cost for relocating the stations is $150 to $200 million per station and is to be paid by the Corps.

The B&V 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 B&V team is attached as 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 laths and mills provide the department with the ability to fabricate parts when replacement parts are excessively expensive or no longer available. However, lack of trained personnel is eroding 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 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.

No major equipment was lost in the maintenance shop during the storm. The building sustained major roof damage which was repaired in 2006. All maintenance equipment is well maintained and adequate to do the work in-house.

Engineering

The Engineering Division 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.

In the aftermath of Hurricane Katrina, more work is being contracted out than before. Due to the emergency nature of the work, contract approval had a quicker turnaround time of two weeks in 2006 compared to two months before the hurricane. Contracts are now starting to take longer to be awarded. Following is the status of some of the contracts administered through the Engineering Department:

- Emergency contracts issued for purchasing generators and portable pumps for the drainage and 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.
- The contract for installation of the sodium hypochlorite generation system has been awarded and will be starting soon.
- 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.

To date, the Board has paid approximately $12 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 60 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 25,000 leaks have been fixed between July of 2006 and July of 2007.

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 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 an estimated payment of $3 million for the 50 percent of the sewer system inspected.

The estimated time frame for repairing the 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 Division 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 Networks has been restored. The inspection department has been hampered due to a lack of equipment. Networks has subcontracted paving due to the work load and lack of equipment. Over 4,000 paving projects have been completed since January 2006 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. Networks 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 had 834 pieces of rolling stock, which included trucks, backhoes and sewer cleaning equipment, prior to the hurricane. Approximately 548 pieces were damaged and rendered useless as a result of the levee failures. Almost 286 pieces were saved and are in operation. Almost 50 percent of the pieces saved are at least 13 years old and will be in need of replacement in the next few years. In addition, the Board has also leased or purchased 226 pieces of equipment. Of the 226 pieces of equipment only 12 pieces are still on lease, the other 214 pieces of equipment are owned by the Board. The new equipment includes new vacuum trucks, trailers, 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 had 135 total staff on their roll prior to the hurricane. Most of the personnel and mechanics, who evacuated for the storm, have since returned to work.

Environmental Affairs Department

The Environmental Affairs Division 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:

- Ensuring environmentally sound water and sanitation facilities for the temporary trailer facilities, although this is phasing out as the trailer facilities are being phased out in the near future.

- 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 crew.
- 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 eight less positions that account for one-third of the total strength.

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 majuere.

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 were submitted in June of 2007.
- 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.
- The deadline for submission of the Remedial Measures Action Plan (RMAP) as required under Section XV.D. for the South Shore Basin was extended to March 1, 2006. The Board submitted the RMAP on April 6, 2006; however, the Board complied with the requirements for submission of all other RMAPs. The implementation of RMAP in the Central Business District Basin and Uptown basin was delayed due to the hurricane. The

deadline for beginning construction and/or implementation of other RMAPs that sustained damage during the hurricane is still in negotiation.

- 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 require approximately 12 months to rebuild. Once the unit is commissioned the Board will be subject to this provision of the Decree.

- 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

- Following Katrina, there has been a shift in operations and maintenance philosophy from setting priorities based on available budget to setting priorities based on needs.

- The Board is well on its way to mitigating the damage caused by Katrina. 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-hurricane condition.

- The Board is currently utilizing portable pumps due to the damage that has occurred to the existing 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 suffering from lack 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 applied for a $400,000 grant by the Delta Regional Authority for initial feasibility of wetland wastewater assimilation for the East Bank Sewerage Treatment Plant. The Board has received eligibility and was awarded the grant. This project is moving forward and should be completed within 12 months.

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 as to bonds and pledge; 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.

The Board is in compliance with the 1998 General Water Revenue Bond Resolution and subsequent amendments. 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 2006 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2006.

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 by the hurricane.

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.

2006 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 2006 Water Department operations are discussed in the following paragraphs.

Water Use

According to statistics found in the December 31, 2006 Comprehensive Annual Financial Report, during the year, 49,087,160,000 gallons of water were pumped by the Water Department. Water sales accounts for 12,984,520,500 gallons; 434,860,100 gallons were metered to City departments without charge. Metered treatment plant process water totaled 233,024,000 gallons. The remaining 35,434,755,400 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 2002 through 2011. Based on year-end billing summaries, the number of monthly billed customers during 2006 averaged 124,027 compared with 108,697 for 2005.

In addition to regular customers, water is sold to construction contractors and other customers on an irregular basis. The Board also provides water service free of charge to certain municipal and public connections including the Board itself. In 2006 there were 920 connections in this group, compared with 963 for 2005.

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 12,592 million gallons of water sales were billed on a monthly basis in 2006, compared with a total of 14,616 million gallons in 2005.

Operating Revenues

The 2006 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 3-step declining block volume 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 2002 through 2006. 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 2006 were $33,718,910 which, when compared with $37,997,862 for 2005, shows a decrease of approximately 11.3 percent. Delinquent fee revenues were $80,850 in 2006.

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 2006, non-operating revenue included $834,088 of interest earned from the investment of available funds in the Water System Fund and the Water Revenue Bond Account and $2,860,779 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 2006 decreased about 21.1 percent from 2005 expenditures. 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 2006 capital expenditures, exclusive of prorated interest, totaled $35,998,639. 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 2006:

Total Revenues	$37,494,628
Operation and Maintenance Expense	41,785,046
Claims	185,283
Debt Service Payments	3,767,524
Revenue Primarily Available for Capital Expenditures (a)	-$8,243,225

(a) Unadjusted for depreciation.

Proposed Capital Improvement Program

Table 7 presents a summary of the projected major capital improvement program for the period 2007 through 2011. Table 7 is based on estimated improvement program scheduling and cost data taken from the Board's 2007 adopted Capital Budget and the 2008-2011 proposed Capital Program. The costs associated with CP 214, 215, 216, and 221 for 2007 through 2011 will be funded from FEMA reimbursements and is discussed in the next section. The five-year major capital improvement program costs are estimated to total $115,432,000. About 90 percent of this amount or $103,762,000 is for recurring annual capital improvements, with the remaining $11,670,000 for major improvements. The proposed routine annual capital expenditures for water system improvements and extensions include $2,033,000 for the Water Department's share of power projects, and $41,629,000 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 2007 through 2011 are shown in Table 8. These estimates reflect the rate schedule effective July 18, 2002 applied to the projected number of customers and water usage and are projected to increase, on average, about 1.2 percent per year throughout the study period; however, a 3.8 percent decrease is shown in 2008. The Board estimates that approximately 20,000 water accounts are currently inactive but are still being billed the monthly minimum charge. It is assumed that these meters will be removed next year and the accounts will be turned off.

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 $150,000 per year, and $150,000 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 2007 through 2011 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 2007.

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 2007 through 2011.

Because the amount of bonds that can be issued is limited by the debt service coverage tests, issuance of Bond Anticipation Notes (BANs), beginning in 2008, 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 2006 rates as previously presented in Table 8.

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.

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. Because the amount of bonds that can be issued is limited by the debt service coverage tests, issuance of BANs is required in 2008 through 2011 to fund major capital projects. 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 are shown on Line 21 as an offset to existing debt service requirements.

Line 24 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.

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, 2006, the Board had drawn down $46,011,566 of the $63,710,540 total funds available. During 2007 the Board will drawn down the remaining $17,698,974 funds available. The water portion of the 2007 draw down is reflected on Line 25 of Table 11.

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 $4,590,500 net balance of operating funds available at the beginning of the year 2006, 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 2007 through 2011, 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 not be equal to or greater than the targeted emergency capital reserve by the end of 2011.

Capital Projects Funding

Major capital improvement financing is examined in Lines 30 through 45 of Table 11. The amount of Funds Available at Beginning of Year, shown on Line 30, is a deficit of $2,444,400. This amount is based on audited data provided by the Board.

Because the amount of bonds that can be issued is limited by the debt service coverage tests, issuance of BANs is required to fund the adopted capital program. Revenue from issuance of BANs is shown on Line 32. 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 33. 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 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. For each damaged asset, the Board initiates a project worksheet with the original estimated project cost as determined by Board staff. Once the Board has received bids for the project work, the price is submitted to FEMA and FEMA agrees to an obligated reimbursement amount. If the difference between the original estimated project cost and the obligated amount is greater than $55,000, the Board can have a version written in order to increase the amount of funding from FEMA. If the difference is less than $55,000 FEMA will check the completed work and price and assuming it meets eligibility requirements will agree to reimburse the difference. FEMA will not accept any new project worksheets after June 30; however, if a project worksheet has already been written, costs may be added or revised after this date. Once the Project has been obligated and has invoices against it, then the Board is able to bring those invoices to the state for payment. The amount of time from when the paperwork is submitted to when the reimbursement is received is approximately 7-14 days.

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 BANs are shown on Line 41. The Total Application of Funds is shown on Line 44 of Table 11. The net End of Year Balance is shown on Line 45.

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 46 of Table 11, the indicated revenue increases will not provide sufficient net revenues to meet coverage requirements in 2008, 2009 and 2010.

The results of the Additional Bonds Test, described in an earlier section of this report, are shown on Lines 47 through 49 of Table 11.

Table 1

Insurance in Force as of December 31, 2006

Carrier	Kind and / or Location	Amount of Coverage	Policy Period	
			From	To
		$		
Clarendon America Insurance Company	Business Automobile	Primary: $1,000,000 (312 Units) ($200,000 Deductible)	06/20/06	06/20/07
Interstate Fire & Casualty Company	Business Automobile	Excess: $9,000,000 CSL	06/20/06	06/20/07
Fidelity & Deposit Co.	Government Crime Policy	$500,000 ($10,000 Deductible)	05/01/06	05/01/07
Continental Casualty Insurance Company	Fire, Extended Coverage and Vandalism and Malicious Mischief	$30,051,560 Building $4,785,440 Contents ($25,000	09/01/06	09/01/07
Zurich North America Surety	Performance Bond	$100,000 Limit	06/09/06	06/09/07
Fidelity & Deposit Co.	Commercial Crime	$25,000 ($500 Deductible)	09/04/06	05/01/07
National Union Fire Insurance Co.	Public Officials and Employees Liability	$5,000,000 ($100,000 Deductible)	11/20/06	11/20/07
Travelers Casualty & Surety	Fiduciary Liability	$1,000,000 ($50,000 Deductible)	08/01/04	08/01/07

Table 2

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

	Historical					Projected				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Single Family Residential (b)										
Customers	122,238	124,725	122,143	94,379	104,843	102,117	91,905	94,662	97,502	100,427
Sales (1,000,000 gal.)	9,868	9,473	9,163	6,471	5,207	7,148	6,801	7,005	7,313	7,532
Sales Per Customer (1,000 gal.)	81	76	75	69	50	70	74	74	75	75
Multi-family Residential										
Customers	5,549	5,605	5,423	4,184	4,818	4,693	4,224	4,351	4,482	4,616
Sales (1,000,000 gal.)	2,423	2,260	1,913	1,285	895	1,220	1,153	1,223	1,286	1,339
Sales Per Customer (1,000 gal.)	437	403	353	307	186	260	273	281	287	290
Commercial										
Customers	11,184	11,756	11,693	9,095	13,390	13,042	13,042	13,042	13,042	13,042
Sales (1,000,000 gal.)	5,912	5,643	5,623	4,140	3,874	5,282	5,543	5,712	5,830	5,882
Sales Per Customer (1,000 gal.)	529	480	481	455	289	405	425	438	447	451
Industrial										
Customers	26	25	24	19	47	46	46	46	46	46
Sales (1,000,000 gal.)	106	78	80	92	148	225	225	225	225	225
Sales Per Customer (1,000 gal.)	4,150	3,065	3,303	4,910	3,157	4,900	4,900	4,900	4,900	4,900
Dual Service & Metered Fire Service (c)										
Customers	1,168	1,200	1,220	1,020	929	905	815	839	864	890
Sales (1,000,000 gal.)	3,705	3,509	3,577	2,629	2,467	3,364	3,029	3,119	3,212	3,308
Sales Per Customer (1,000 gal.)	3,172	2,924	2,932	2,578	2,656	3,717	3,717	3,717	3,717	3,717
Total										
Customers	140,164	143,312	140,502	108,697	124,027	120,803	110,032	112,940	115,936	119,021
Sales (1,000,000 gal.)	22,013	20,963	20,355	14,616	12,592	17,240	16,752	17,284	17,866	18,286

(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 July 18, 2002)

		General Service	Dual Service (a)
		$	$
Monthly Water Service Charge			
Meter Size 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	20,000 gallons	2.31	2.31
Next	980,000 gallons	2.07	2.07
Over	1,000,000 gallons	1.59	1.59
Flat Rate Fire Service			
Meter Size 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

	2002	2003	2004	2005	2006
	$	$	$	$	$
Operating Revenue					
Sales of Water	52,392,578	53,886,572	53,057,240	37,997,862	33,718,910
Delinquent Fee	1,020,472	1,111,260	1,176,905	729,404	80,850
Total Operating Revenue	53,413,050	54,997,832	54,234,145	38,727,266	33,799,761
Nonoperating Revenue					
Interest Earned	386,885	468,688	563,059	666,889	834,088
Plumbing Inspection and License Fees	109,685	107,822	116,574	87,630	295,122
Revenue Sharing	354,156	342,946	331,223	281,159	282,273
Other Income	928,220	992,112	1,660,249	1,901,997	2,283,384
Total Nonoperating Revenue	1,778,945	1,911,568	2,671,105	2,937,675	3,694,867
Total Revenues	55,191,995	56,909,400	56,905,250	41,664,942	37,494,628

Table 5

Water Department
Historical Operation and Maintenance Expenses

	2002	2003	2004	2005	2006
	$	$	$	$	$
Management and General Expenses					
Administrative	2,662,584	1,428,644	1,994,969	1,799,005	1,290,870
Management Services Director	96,921	91,640	88,643	99,251	75,410
Building and Grounds and Support Services	933,702	1,007,156	1,017,743	948,310	1,128,139
Personnel Administration	392,522	437,976	452,757	397,340	297,352
Finance Administration	661,603	695,921	704,143	777,050	691,849
Information Systems	1,927,899	1,888,962	2,125,759	2,443,907	2,230,138
Revenue and Customer Service	2,790,947	2,911,598	3,078,314	2,882,398	2,325,713
Purchasing	276,535	259,125	262,234	268,376	216,849
Total Management and General	9,742,713	8,721,022	9,724,562	9,615,637	8,256,320
Operations Expenses					
General Superintendent	249,103	299,603	389,054	229,857	164,123
Chief of Operations	98,617	102,461	105,042	100,915	71,717
Water Pumping and Power	9,147,099	11,402,622	13,299,299	15,037,043	8,870,268
Central Control	528,880	579,450	620,571	748,612	470,418
Water Purification	5,983,264	6,295,805	6,180,711	6,685,610	7,026,675
Chief of Facilities Maintenance	182,311	115,828	112,109	118,707	61,042
Facilities Maintenance	2,958,421	2,912,654	2,950,542	3,479,142	2,990,353
Central Yard	1,964,767	2,303,389	2,424,053	2,472,046	1,995,190
Office of Chief of Networks	204,287	149,863	175,162	113,222	90,770
Networks	10,832,813	13,268,454	13,695,566	12,451,563	9,274,448
Engineering	1,066,639	1,245,919	1,315,150	1,391,081	1,051,807
Plumbing	383,661	448,181	433,282	461,852	400,927
Total Operations	33,599,862	39,124,229	41,700,541	43,289,650	32,467,738
Other Expenses					
Special Accounts	1,452,724	1,243,833	1,127,730	1,194,655	1,506,011
Payroll Related Expenses	2,877,195	2,580,955	3,083,796	2,970,428	3,090,901
Overhead Allocation	(3,375,586)	(3,864,563)	(3,942,123)	(4,124,375)	(3,535,924)
Total Other	954,333	(39,775)	269,403	40,708	1,060,988
Total Operation and Maintenance (a)	44,296,908	47,805,476	51,694,506	52,945,995	41,785,046

(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)
2006

C.P. #	Project	Actual Expenditures
		$
	Waterworks	
110	Normal Extensions & Replacements	1,136,060
118	Modernization of Steam System	
122	Filter Rehabilitation	421,357
135	Improvements to Chemical System	10,024
156	Advanced Carrollton Water Treatment	
157	Advanced Water Treatment	1,810
159	Water Plant Security Improvements	
160	Hurricane Katrina Expense for Water	21,557,142
	Total Waterworks	23,126,393
	Water Distribution	
214	Normal Extensions & Replacements	469,773
215	Rehabilitation - Mains, Hydrants & Services	
216	Water System Replacement Program	
221	Feeder Main Extension, General	
239	Mains In Street Department Contracts	564,231
	Total Water Distribution	1,034,003
600	Water Share of Power Projects	1,250,987
700	Water Emergency Reserve	
800	Water Share of General Budget Items	10,587,256
	Total Water Department	35,998,639

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

Table 7

Water Department
Proposed Capital Improvements (a)

C.P. #	Project	2007	2008	2009	2010	2011	Total
		$	$	$	$	$	$
	Routine Capital Improvements						
110	Normal Extension & Replacement	4,050,000	2,450,000	2,450,000	2,450,000	2,450,000	13,850,000
122	Filter Rehabilitation	13,700,000	1,450,000	1,000,000	1,000,000	1,000,000	18,150,000
200	Eng. & Insp. of Devp. Installations	10,000	10,000	10,000	10,000	10,000	50,000
214	Normal Extensions & Replacements (b)	0	0	0	0	0	0
215	Rehabilitation - Mains, Hydrants and Services (b)	0	0	0	0	0	0
221	Feeder Main Extension, General (b)	0	0	0	0	0	0
239	Mains In Streets Department Contracts	5,350,000	5,300,000	5,400,000	5,500,000	5,800,000	27,350,000
600	Water Share of Power Projects	826,000	715,000	366,000	63,000	63,000	2,033,000
701	Water Reserve for Emergencies	700,000	0	0	0	0	700,000
800	Water Share of General Budget Items	12,847,000	8,338,000	7,649,000	6,428,000	6,367,000	41,629,000
	Total Routine Capital Improvements	37,483,000	18,263,000	16,875,000	15,451,000	15,690,000	103,762,000
	Major Capital Improvements						
135	Improvements to Chemical System	2,040,000	1,410,000	250,000	250,000	250,000	4,200,000
156	Advanced Carrollton Water Treatment	150,000	150,000	0	0	0	300,000
157	Advanced Algiers Water Treatment	1,200,000	0	0	0	0	1,200,000
159	Water Plant Security Improvements	0	3,170,000	2,600,000	100,000	100,000	5,970,000
216	Water System Replacement Program (b)	0	0	0	0	0	0
	Total Major Capital Improvements	3,390,000	4,730,000	2,850,000	350,000	350,000	11,670,000
	Total Water Department Improvements	40,873,000	22,993,000	19,725,000	15,801,000	16,040,000	115,432,000

(a) The improvements for the 2007-2011 period are based on the budget dated December 12, 2006.
(b) The costs associated with CP 214, 215, 216, and 221 will be funded from FEMA reimbursements.

Table 8

Water Department
Projected Operating Revenues

Year	Total Operating Revenues
	$
2007	39,039,400
2008	37,536,800
2009	38,680,100
2010	39,942,200
2011	40,896,300

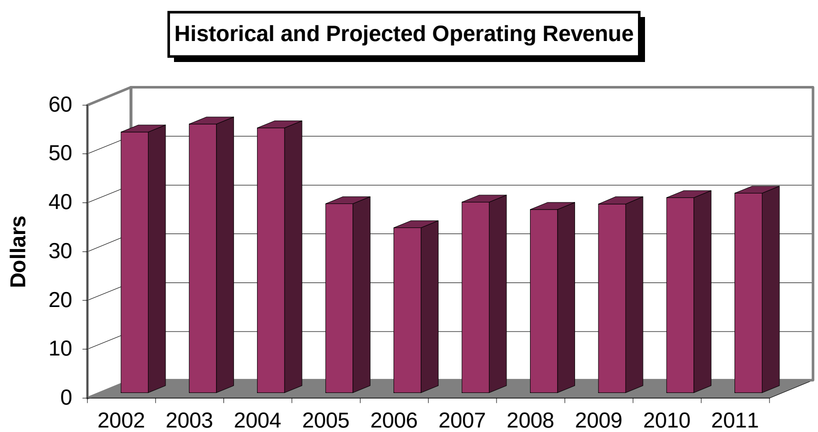

Table 9

Water Department
Projected Operation and Maintenance Expenses

	2007 (a)	2008	2009	2010	2011
	$	$	$	$	$
Management and General Expenses					
Administrative	3,009,400	3,099,700	3,192,700	3,288,500	3,387,200
Management Services Director	25,700	26,500	27,200	28,100	28,900
Building and Grounds and Support Services	966,900	995,900	1,025,800	1,056,600	1,088,300
Personnel Administration	346,800	357,200	367,900	378,900	390,300
Finance Administration	708,800	730,100	752,000	774,500	797,800
Information Systems	2,169,700	2,234,800	2,301,800	2,370,900	2,442,000
Revenue and Customer Service	3,345,800	3,446,200	3,549,600	3,656,100	3,765,800
Purchasing	309,900	319,200	328,800	338,600	348,800
Total Management and General	10,883,000	11,209,600	11,545,800	11,892,200	12,249,100
Operations Expenses					
General Superintendent	191,600	197,300	203,200	209,300	215,600
Chief of Operations	83,400	85,900	88,500	91,100	93,900
Water Pumping and Power	12,882,800	13,269,300	13,667,400	14,077,400	14,499,800
Central Control	389,700	401,400	413,500	425,900	438,700
Water Purification	7,772,600	8,005,800	8,246,000	8,493,400	8,748,200
Chief of Facilities Maintenance	68,700	70,700	72,900	75,000	77,300
Facilities Maintenance	3,821,300	3,935,900	4,054,000	4,175,600	4,300,900
Central Yard	1,818,100	1,872,600	1,928,800	1,986,700	2,046,300
Office of Chief of Networks	110,400	113,700	117,100	120,600	124,200
Networks	11,063,800	11,395,700	11,737,500	12,089,700	12,452,300
Engineering	1,145,000	1,179,300	1,214,700	1,251,200	1,288,700
Plumbing	407,000	419,200	431,800	444,800	458,100
Total Operations	39,754,400	40,946,800	42,175,400	43,440,700	44,744,000
Other Expenses					
Special Accounts	2,006,100	2,066,300	2,128,300	2,192,200	2,257,900
Payroll Related Expenses	4,287,700	4,416,300	4,548,800	4,685,300	4,825,800
Overhead Allocation	(4,072,700)	(4,194,800)	(4,320,600)	(4,450,300)	(4,583,800)
Total Other	2,221,100	2,287,800	2,356,500	2,427,200	2,499,900
Total Operation and Maintenance	52,858,500	54,444,200	56,077,700	57,760,100	59,493,000

(a) Represents the adopted operating budget as of December 12, 2006.

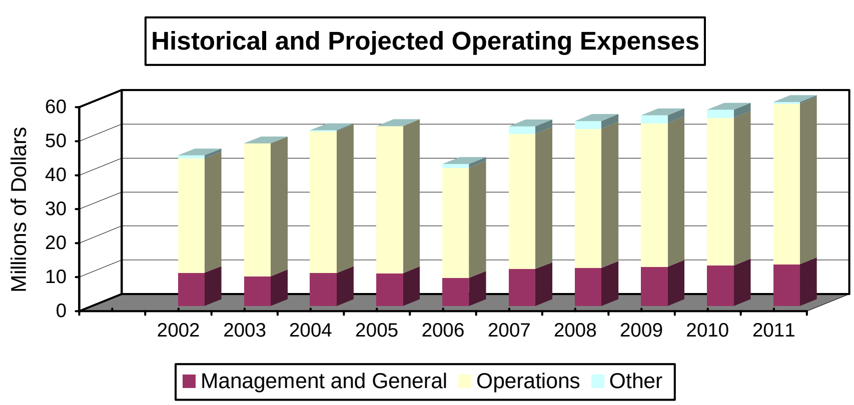

Table 10

Water Revenue Bond
Debt Service Requirements

	Amount of Issue	2007	2008	2009	2010	2011
	$	$	$	$	$	$
Existing Bonds						
Series 1998		1,260,400	1,274,700	1,281,700	1,281,700	1,283,500
Series 2002		2,542,800	2,565,100	2,588,600	2,606,200	2,623,100
Total Existing Debt Service (a)		3,803,200	3,839,800	3,870,300	3,887,900	3,906,600
Proposed Bonds						
2007	0	0	0	0	0	0
2008	0		0	0	0	0
2009	0			0	0	0
2010	0				0	0
2011	0					0
Total Proposed Debt Service		0	0	0	0	0
Total Debt Service		3,803,200	3,839,800	3,870,300	3,887,900	3,906,600

(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.					2007	2008	2009	2010	2011
					$	$	$	$	$
	Operating Fund								
1	Revenue from Charges				39,039,400	37,536,800	38,680,100	39,942,200	40,896,300
	Additional Revenue Required								
		Year	Revenue Increase	Months Effective					
2		2007	21.0%	2.0	1,366,400	7,882,700	8,122,800	8,387,900	8,588,200
3		2008	17.0%	5.0		3,217,200	7,956,500	8,216,100	8,412,400
4		2009	5.0%	5.0			1,140,800	2,827,300	2,894,800
5		2010	5.0%	5.0				1,236,900	3,039,600
6		2011	4.0%	5.0					1,063,900
7	Total Additional Revenue				1,366,400	11,099,900	17,220,100	20,668,200	23,998,900
8	Total Service Charge Revenue				40,405,800	48,636,700	55,900,200	60,610,400	64,895,200
9	Interest Income				121,900	121,900	121,900	121,900	121,900
10	Three-Mill Revenue Sharing				250,000	250,000	250,000	250,000	250,000
11	Plumbing Insp. & License Fees				150,000	150,000	150,000	150,000	150,000
12	Other Miscellaneous Income				1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
13	Interest from Bond Reserve Fund				120,000	120,000	120,000	120,000	120,000
14	Total Operating Revenue				42,047,700	50,278,600	57,542,100	62,252,300	66,537,100
15	Operation & Maintenance				52,858,500	54,444,200	56,077,700	57,760,100	59,493,000
16	Provision for Claims				1,845,000	1,891,400	1,939,100	1,688,300	1,738,900
17	Net Operating Revenue				(12,655,800)	(6,057,000)	(474,700)	2,803,900	5,305,200
	Debt Service								
18	Existing				3,803,200	3,839,800	3,870,300	3,887,900	3,906,600
19	Proposed				0	0	0	0	0
20	Subtotal				3,803,200	3,839,800	3,870,300	3,887,900	3,906,600
21	Gulf Opportunity Zone Act Loan				(3,803,200)	(252,000)	0	0	0
22	Net Debt Service				0	3,587,800	3,870,300	3,887,900	3,906,600
23	Interest Expense on BAN's				0	859,700	3,689,700	4,643,500	5,446,700
24	Transfer to Construction				0	0	0	0	0
25	SCDL Proceeds				5,899,700	0	0	0	0
26	FEMA Federal Assistance Fees				231,000	0	0	0	0
27	Net Annual Balance				(10,328,300)	(10,756,500)	(8,034,700)	(5,727,500)	(4,048,100)
28	Beginning of Year Balance				2,590,500	(7,737,800)	(18,494,300)	(26,529,000)	(32,256,500)
29	End of Year Balance				(7,737,800)	(18,494,300)	(26,529,000)	(32,256,500)	(36,304,600)
	Capital Projects Funding								
30	Funds Available at Beginning of Year				(2,444,400)	(44,435,600)	411,300	508,900	567,100
31	Revenue Bond Proceeds				0	0	0	0	0
32	Revenue from BANs				0	68,500,000	20,000,000	16,000,000	16,000,000
33	Operation Fund Transfers				0	0	0	0	0
34	Participation By Others				0	0	0	0	0
35	Interest Income				0	24,900	22,600	19,200	18,100
36	Total Funds Available				(2,444,400)	24,089,300	20,433,900	16,528,100	16,585,200
37	Routine Annual Additions (a)				37,483,000	18,263,000	16,875,000	15,451,000	15,690,000
38	Major Capital Additions (a)				3,390,000	4,730,000	2,850,000	350,000	350,000
39	FEMA Cost Share				1,118,200	0	0	0	0
	Issuance Costs								
40	Bond Issuance Expense				0	0	0	0	0
41	BAN Issuance Expense				0	685,000	200,000	160,000	160,000
42	Revenue Bond Reserve Fund				0	0	0	0	0
43	Redemption of BAN's				0	0	0	0	0
44	Total Application of Funds				41,991,200	23,678,000	19,925,000	15,961,000	16,200,000
45	End of Year Balance				(44,435,600)	411,300	508,900	567,100	385,200
	Debt Service Coverage								
46	Annual Test				N/A	-169%	-12%	72%	136%
	Additional Bonds Test								
47	Prior Two-Year Test				-207%	-218%	-238%	-83%	30%
48	Maximum Future Debt Test				-322%	-154%	-12%	72%	136%
49	Coverage 5 Years after Sale				167%	160%	153%	146%	138%

(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.
- 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 2006 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2006.

2006 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 2006 operations of the Sewerage Department are discussed in the following paragraphs.

Operating Revenues

Sewerage Department operating revenue for 2006 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 2002 through 2006. 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 2006 were $62,603,447 which, when compared with $56,842,180 for 2005, shows an increase of approximately 10 percent. Delinquent fee revenues were $54,189 in 2006.

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 2006 consisted of $4,568,292 from investments in the Sewerage System fund, the capital projects and construction fund. Miscellaneous income was $705,726 for 2006.

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 2002 through 2006 historical operation and maintenance expenses of the Sewerage Department. Expenditures for 2006 decreased 5 percent from 2005 expenditures. 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 $54,542,431 were made in 2006. Capital improvement expenditures for 2006 are shown in Table 16.

Summary of Operations

The following tabulation shows a summary of the receipts and expenditures of the Sewerage Department during 2006:

Total Revenue	$67,931,654
Operation and Maintenance Expense	33,037,888
Claims	397,189
Bond Debt Service	18,138,651
Revenue Available for Capital Expenditures (a)	$16,357,926

(a) Unadjusted for depreciation.

Proposed Capital Improvement Program

Table 17 presents a summary of the projected major capital improvement program for the period 2007 through 2011. Table 17 is based on estimated improvement program scheduling and cost data taken from the Board's 2007 adopted Capital Budget and the 2008-2011 proposed Capital Program. The Sewerage and Water Board staff has prepared a Capital Improvement Program calling for expenditures, exclusive of prorated interest, of $119,617,000 in the five-year period 2007 through 2011. 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 2007-2011 study period per staff direction. Of the projected total, $79,167,000 is considered to be for recurring annual capital improvements. The remaining $40,450,000 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 2007 through 2011 total $1,255,000 and $27,865,000, 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 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 2007 through 2011 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 $150,000 per year. Additionally, about $350,000 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 2007 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 2007 through 2011.

To adequately fund the proposed capital improvements, additional bonded debt of $25,000,000 is indicated in 2008, $25,000,000 in 2009, $25,000,000 in 2010, and $20,000,000 in 2011. 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), beginning in 2008, is 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 2006 rates as previously presented in Table 21.

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 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 $25,200,000 in 2008, $25,500,000 in 2009, $24,900,000 in 2010, and $19,800,000 in 2011 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 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 are shown on Line 21 and net debt service is shown on Line 22.

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.

Line 24 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.

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, 2006, the Board had drawn down $46,011,566 of the $63,710,540 total funds available. During 2007 the Board will drawn down the remaining $17,698,974 funds available. The sewerage portion of the 2007 draw down is reflected on Line 25 of Table 21.

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 $9,430,600 net balance of operating funds available at the beginning of the year 2007, 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 2006 through 2010, 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 $124,312,300. This amount is based on audited data provided by the Board.

Bond issues in the amount of $25,000,000 in 2008, $25,000,000 in 2009, $25,000,000 in 2010, and $20,000,000 in 2011 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 required to fund the adopted capital program. Revenue from issuance of Bans is shown on Line 32.

Financing of the major capital improvement program anticipates the transfer of $78,000,000 of operating reserves as shown on Line 33. Other sources of funds available to meet major capital improvement expenditures are Participation by EPA 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. For each damaged asset, the Board initiates a project worksheet with the original estimated project cost as determined by Board staff. Once the Board has received bids for the project work, the price is submitted to FEMA and FEMA agrees to an obligated reimbursement amount. If the difference between the original estimated project cost and the obligated amount is greater than $55,000, the Board can have a version written in order to increase the amount of funding from FEMA. If the difference is less than $55,000 FEMA will check the completed work and price and assuming it meets eligibility requirements will agree to reimburse the difference. FEMA will not accept any new project worksheets after June 30; however, if a project worksheet has already been written, costs may be added or revised after this date. Once the Project has been obligated and has invoices against it, then board is able to bring those invoices to the state for payment. The amount of time from when the paperwork is submitted to when the reimbursement is received is approximately 7-14 days.

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 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 2007-2011 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				
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Single Family Residential (b)										
Customers	121,645	124,122	121,524	93,897	104,312	101,600	91,440	94,183	97,008	99,918
Sales (1,000,000 gal.)	8,255	7,918	7,653	5,403	4,316	5,182	4,938	5,086	5,335	5,496
Sales Per Customer (1,000 gal.)	68	64	63	58	41	51	54	54	55	55
Multifamily Residential										
Customers	5,543	5,599	5,414	4,176	4,811	4,686	4,217	4,344	4,474	4,608
Sales (1,000,000 gal.)	2,112	1,954	1,635	1,094	766	923	873	925	971	1,009
Sales Per Customer (1,000 gal.)	381	349	302	262	159	197	207	213	217	219
Commercial										
Customers	11,416	11,984	11,897	9,292	13,623	13,269	13,269	13,269	13,269	13,269
Sales (1,000,000 gal.)	8,147	7,813	7,786	5,751	5,368	6,781	7,112	7,338	7,484	7,550
Sales Per Customer (1,000 gal.)	713	651	654	618	394	511	536	553	563	569
Industrial										
Customers	40	39	37	28	71	69	69	69	69	69
Sales (1,000,000 gal.)	110	88	86	57	67	106	106	106	106	106
Sales Per Customer (1,000 gal.)	2,743	2,292	2,348	2,023	937	1,529	1,529	1,529	1,529	1,529
Total										
Customers	138,645	141,743	138,871	107,393	122,817	119,624	108,995	111,865	114,820	117,864
Sales (1,000,000 gal.)	18,624	17,773	17,160	12,305	10,517	12,991	13,028	13,455	13,896	14,160

(a) Excludes customers receiving free service.
(b) Includes duplex.

Table 13

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

Monthly Sewerage Service Charge

Meter Size	Total Monthly Charge
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

	2002	2003	2004	2005	2006
	$	$	$	$	$
Operating Revenue					
Sewerage Service Charges	52,772,374	61,585,345	71,465,136	56,842,180	62,603,447
Delinquent Fee	682,918	743,351	786,979	487,783	54,189
Total Operating Revenue	53,455,292	62,328,696	72,252,115	57,329,963	62,657,636
Nonoperating Revenue					
Interest Income	1,462,951	1,185,918	2,673,124	4,218,505	4,568,292
Plumbing Inspection and License Fees	109,685	107,822	116,574	87,630	295,122
Revenue Sharing	438,727	427,719	413,099	350,659	352,048
Other Income	19,101	56,690	284,927	256,648	58,556
Total Nonoperating Revenue	2,030,464	1,778,149	3,487,724	4,913,443	5,274,018
Total Revenue	55,485,756	64,106,845	75,739,839	62,243,406	67,931,654

Table 15

Sewerage Department
Historical Operation and Maintenance Expenses

	2002	2003	2004	2005	2006
	$	$	$	$	$
Management and General Expenses					
Administrative	2,268,730	2,289,479	2,528,091	1,575,719	2,630,861
Management Services Director	70,672	66,820	64,635	72,370	54,986
Building and Grounds and Support Services	687,555	743,855	752,517	704,393	833,341
Personnel Administration	286,214	319,356	330,135	289,726	216,821
Finance Administration	500,411	528,126	534,728	588,646	525,451
Information Systems	1,405,759	1,377,367	1,550,033	1,782,016	1,626,143
Revenue and Customer Service	2,790,941	2,911,581	3,078,293	2,882,380	2,325,703
Purchasing	201,641	188,945	191,210	195,690	158,120
Total Management and General	8,211,923	8,425,529	9,029,642	8,090,940	8,371,426
Operations Expenses					
General Superintendent	181,638	218,460	283,685	167,604	119,672
Drainage Pumping and Central Control	323,560	298,867	343,313	335,715	210,012
Sewerage Pumping	2,254,523	2,327,686	2,349,727	2,404,140	2,018,413
Chief of Operations	71,908	74,711	76,593	73,583	52,294
Water Pumping and Power	278,014	337,290	379,879	1,949,523	3,023,657
Sewerage Treatment	10,966,747	12,317,374	12,525,522	8,982,281	8,091,279
Chief of Facilities Maintenance	141,797	84,459	81,746	86,558	44,510
Facilities Maintenance	2,334,960	2,302,474	2,336,736	2,739,218	2,342,667
Central Yard	1,493,809	1,742,439	1,827,746	1,835,205	1,467,353
Office of Chief of Networks	148,960	109,275	127,722	82,558	66,186
Networks	5,897,656	7,278,889	7,533,371	6,885,272	5,741,081
Engineering	777,758	908,482	958,961	1,014,334	766,945
Plumbing	383,656	448,178	433,278	461,851	400,924
Total Operations	25,254,986	28,448,584	29,258,279	27,017,842	24,344,993
Other Expenses					
Special Accounts	1,253,069	1,067,861	1,404,331	1,281,688	1,393,262
Payroll Related Expenses	1,704,457	1,637,674	1,910,252	1,856,434	1,819,006
Overhead Allocation	(2,759,710)	(3,159,474)	(3,222,884)	(3,371,886)	(2,890,799)
Total Other	197,816	(453,939)	91,699	(233,764)	321,469
Total Operation and Maintenance (a)	33,664,725	36,420,174	38,379,620	34,875,018	33,037,888

(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)
2006

C.P. #	Project	Actual Expenditures
		$
	Sewerage Systems	
308	Sewer Rehab - "DPR Solutions"	
313	Force Mains	2,353,746
317	Normal Extensions & Replacement of Gravity Mains	2,223,390
318	Rehabilitation Gravity Sewer System	388,411
326	Extensions & Replacements to Sewer Pump Stations	242,366
339	Mains in Street Dept. Contracts	401,312
347	Second Raw Sewage Channel, EBSTP	
348	Normal Extensions & Replacements	292,645
358	EBSTP Expansion	
367	Collection System Eval/Survey Uptown	862,942
369	Hurricane Katrina Expenses for Sewer System	37,943,430
	Total Sewerage System	44,708,242
	Sewerage Treatment	
381	Modification & Extension of WBSTP to 20/50 MGD	
	Total Sewerage Treatment	0
600	Sewerage Share of Power Projects	309,785
800	Sewerage Share of General Budget Items	9,524,404
	Total Sewerage Department	54,542,431

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

Table 17

Sewerage Department
Proposed Capital Improvements (a)

C.P. #	Project	2007	2008	2009	2010	2011	Total
		$	$	$	$	$	$
	Routine Annual Capital Improvements						
317	Extensions and Replacements - Gravity Mains (b)	0	0	0	0	0	0
326	Extensions and Replacements to Pumping Stations (b)	0	0	0	0	0	0
339	Mains in Streets Department Contracts	3,750,000	3,750,000	4,300,000	4,550,000	4,600,000	20,950,000
348	Extensions and Replacements - Treatment Plants	10,111,000	10,310,000	3,405,000	2,521,000	2,750,000	29,097,000
600	Sewer Share of Power Projects	663,000	439,000	107,000	23,000	23,000	1,255,000
702	Sewer Reserve for Emergencies	0	0	0	0	0	0
800	Sewer Share of General Budget Items	7,774,000	5,540,000	5,351,000	4,631,000	4,569,000	27,865,000
	Total Routine Annual Improvements	22,298,000	20,039,000	13,163,000	11,725,000	11,942,000	79,167,000
	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	0	0	0	0	0
313	Extensions and Replacements - Sewer Force Mains (b)	0	0	0	0	0	0
318	Rehabilitation Gravity Sewer System	4,000,000	4,000,000	4,000,000	4,000,000	4,000,000	20,000,000
358	EBSTP Expansion (c)	0	0	0	0	0	0
367	Sewer System Evaluation Study	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	3,000,000	2,400,000	0	0	0	5,400,000
	Total Major Improvements	10,010,000	9,410,000	7,010,000	7,010,000	7,010,000	40,450,000
	Total Sewerage System Improvements	32,308,000	29,449,000	20,173,000	18,735,000	18,952,000	119,617,000

(a) The improvements for the 2007-2011 period are based on the budget dated December 12, 2006.
(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

Year	Amount
	$
2007	68,544,200
2008	67,203,700
2009	69,088,500
2010	71,037,100
2011	72,383,000

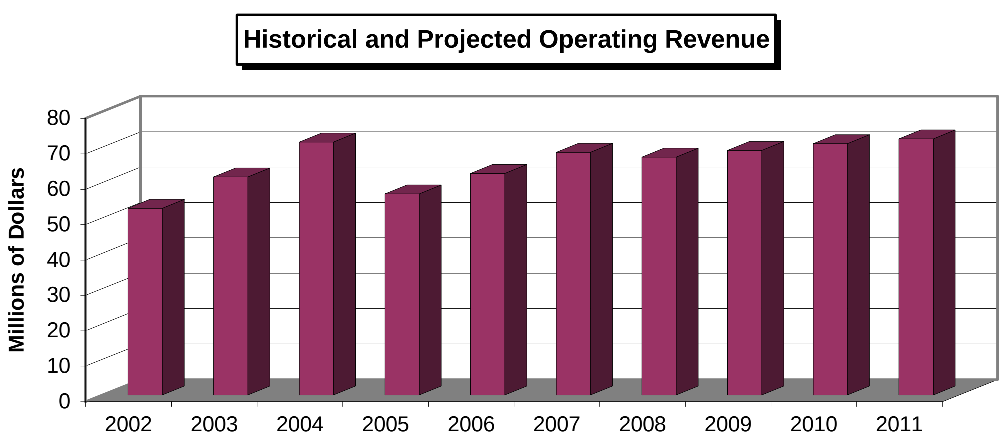

Table 19

Sewerage Department
Projected Operation and Maintenance Expenses

	2007 (a)	2008	2009	2010	2011
	$	$	$	$	$
Management and General Expenses					
Administrative	2,596,500	2,674,400	2,754,700	2,837,300	2,922,400
Management Services Director	18,700	19,300	19,900	20,500	21,100
Building and Grounds and Support Services	705,000	726,200	748,000	770,400	793,500
Personnel Administration	252,800	260,400	268,200	276,300	284,600
Finance Administration	538,100	554,300	570,900	588,000	605,700
Information Systems	1,582,100	1,629,500	1,678,400	1,728,800	1,780,600
Revenue and Customer Service	3,345,800	3,446,200	3,549,600	3,656,100	3,765,800
Purchasing	226,000	232,800	239,700	246,900	254,300
Total Management and General	9,265,000	9,543,100	9,829,400	10,124,300	10,428,000
Operations Expenses					
General Superintendent	139,700	143,900	148,200	152,600	157,200
Drainage Pumping and Central Control	405,000	417,100	429,700	442,500	455,800
Sewerage Pumping	2,231,900	2,298,800	2,367,800	2,438,800	2,512,000
Chief of Operations	60,800	62,600	64,500	66,500	68,400
Water Pumping and Power	336,300	346,400	356,800	367,500	378,500
Sewerage Treatment	9,477,300	9,761,600	10,054,400	10,356,100	10,666,800
Chief of Facilities Maintenance	50,100	51,600	53,100	54,700	56,400
Facilities Maintenance	3,004,300	3,094,400	3,187,300	3,282,900	3,381,400
Central Yard	1,378,100	1,419,500	1,462,000	1,505,900	1,551,100
Office of Chief of Networks	80,500	82,900	85,400	88,000	90,600
Networks	6,644,000	6,843,300	7,048,600	7,260,100	7,477,900
Engineering	834,900	859,900	885,700	912,300	939,700
Plumbing	407,000	419,200	431,800	444,800	458,100
Total Operations	25,049,900	25,801,200	26,575,300	27,372,700	28,193,900
Other Expenses					
Special Accounts	1,851,100	1,906,700	1,963,900	2,022,800	2,083,500
Payroll Related Expenses	2,702,400	2,783,500	2,867,000	2,953,000	3,041,600
Overhead Allocation	(3,275,800)	(3,374,100)	(3,475,300)	(3,579,600)	(3,687,000)
Total Other	1,277,700	1,316,100	1,355,600	1,396,200	1,438,100
Total Operation and Maintenance	35,592,600	36,660,400	37,760,300	38,893,200	40,060,000

(a) Represents the adopted operating budget as of December 12, 2006.

Historical and Projected Operating Expenses

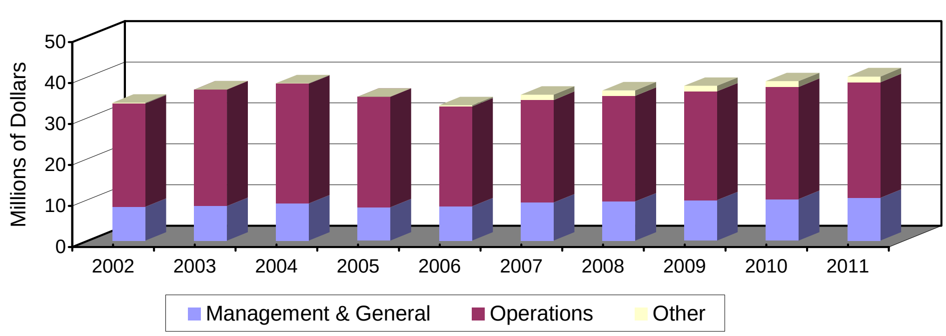

Table 20

Sewerage Service Revenue Bond Debt Service Requirements

		2007	2008	2009	2010	2011
		$	$	$	$	$
Existing Bonds						
Series 1997		2,508,300	2,505,900	2,511,000	2,515,400	2,519,000
Series 1998		1,982,900	1,998,300	2,003,900	2,004,900	2,007,400
Series 2000A		2,229,800	2,231,200	2,231,200	2,235,000	2,245,100
Series 2000B		1,681,300	1,686,900	1,692,600	1,699,000	1,703,900
Series 2001		2,649,500	2,629,800	2,617,500	2,614,800	2,612,800
Series 2002		4,449,000	4,481,200	4,516,000	4,550,800	4,570,800
Series 2003		406,600	406,900	406,500	408,100	408,100
Series 2004		2,487,800	2,451,800	2,438,700	2,448,100	2,457,200
Total Existing Debt Service (a)		18,395,200	18,392,000	18,417,400	18,476,100	18,524,300
Proposed Bonds	Amount of Issue					
	$					
2007	0	0	0	0	0	0
2008	25,000,000		406,600	1,626,300	1,626,300	1,626,300
2009	25,000,000			406,600	1,626,300	1,626,300
2010	25,000,000				406,600	1,626,300
2011	20,000,000					325,300
Total Proposed Debt Service		0	406,600	2,032,900	3,659,200	5,204,200
Total Debt Service		18,395,200	18,798,600	20,450,300	22,135,300	23,728,500

(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.					2007	2008	2009	2010	2011
					$	$	$	$	$
	Operating Fund								
1	Revenue from Charges				68,544,200	67,203,700	69,088,500	71,037,100	72,383,000
	Additional Revenue Required								
		Year	Revenue Increase	Months Effective					
2		2007	0.0%	0.0	0	0	0	0	0
3		2008	0.0%	0.0		0	0	0	0
4		2009	0.0%	0.0			0	0	0
5		2010	0.0%	0.0				0	0
6		2011	0.0%	0.0					0
7	Total Additional Revenue				0	0	0	0	0
8	Total Service Charge Revenue				68,544,200	67,203,700	69,088,500	71,037,100	72,383,000
9	Interest Income				282,600	216,800	229,900	228,100	229,100
10	Three-Mill Revenue Sharing				350,000	350,000	350,000	350,000	350,000
11	Plumbing Insp. & License Fees				150,000	150,000	150,000	150,000	150,000
12	Miscellaneous Revenue				100,000	100,000	100,000	100,000	100,000
13	Interest from Bond Reserve Fund				558,000	583,000	632,000	682,000	726,000
14	Total Operating Revenue				69,984,800	68,603,500	70,550,400	72,547,200	73,938,100
15	Operation & Maintenance				35,592,600	36,660,400	37,760,300	38,893,200	40,060,000
16	Provision for Claims				1,133,000	1,167,000	1,202,000	1,238,100	1,275,200
17	Net Operating Revenue				33,259,200	30,776,100	31,588,100	32,415,900	32,602,900
	Debt Service								
18	Existing				18,395,200	18,392,000	18,417,400	18,476,100	18,524,300
19	Proposed				0	406,600	2,032,900	3,659,200	5,204,200
20	Subtotal				18,395,200	18,798,600	20,450,300	22,135,300	23,728,500
21	Gulf Opportunity Zone Act Loan				(18,395,200)	(12,018,300)	0	0	0
22	Net Debt Service				0	6,780,300	20,450,300	22,135,300	23,728,500
23	Interest Expense on BAN's				1,176,000	2,436,200	5,824,600	5,716,800	5,374,200
24	Transfer to Construction				44,000,000	21,000,000	5,000,000	5,000,000	3,000,000
25	SCDL Proceeds				5,899,700	0	0	0	0
26	FEMA Federal Assistance Fees				1,072,400	0	0	0	0
27	Net Annual Balance				(4,944,700)	559,600	313,200	(436,200)	500,200
28	Beginning of Year Balance				9,430,600	4,485,900	5,045,500	5,358,700	4,922,500
29	End of Year Balance				4,485,900	5,045,500	5,358,700	4,922,500	5,422,700
	Capital Projects Funding								
30	Funds on Hand				(124,312,300)	(115,708,500)	699,500	257,200	490,300
31	Revenue Bond Proceeds				0	25,000,000	25,000,000	25,000,000	20,000,000
32	Revenue from BANs				0	103,000,000	16,000,000	21,000,000	28,000,000
33	Operation Fund Transfers				44,000,000	21,000,000	5,000,000	5,000,000	3,000,000
34	Participation by EPA				0	0	0	0	0
35	Interest Income				0	13,300	47,000	54,400	59,300
36	Total Funds Available				(80,312,300)	33,304,800	46,746,500	51,311,600	51,549,600
37	Routine Annual (a)				22,298,000	20,039,000	13,163,000	11,725,000	11,942,000
38	Major Capital Additions (a)(b)				10,010,000	9,410,000	7,010,000	7,010,000	7,010,000
39	FEMA Cost Share				3,088,200	0	0	0	0
	Issuance Costs								
40	Bond Issuance Expense				0	500,000	500,000	500,000	400,000
41	BAN Issuance Expense				0	1,030,000	160,000	210,000	280,000
42	Revenue Bond Reserve Fund				0	1,626,300	1,626,300	1,626,300	1,301,000
43	Redemption of BAN's				0	0	24,030,000	29,750,000	29,750,000
44	Total Application of Funds				35,396,200	32,605,300	46,489,300	50,821,300	50,683,000
45	End of Year Balance				(115,708,500)	699,500	257,200	490,300	866,600
	Debt Service Coverage								
46	Annual Test				N/A	453.9%	154.5%	146.4%	137.4%
	Additional Bonds Test								
47	Prior Two-Year Test				173.7%	169.8%	148.4%	134.5%	130.8%
48	Maximum Future Debt Service Test				181.5%	154.3%	146.6%	139.9%	133.3%
49	Coverage 5 Years after Sale				133.8%	134.5%	135.1%	135.8%	136.3%

(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

2006 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. Following a relatively wet year in 2002, rainfall in 2003, 2004, and 2005 was 2.56 inches, 3.46 inches, and 3.19 inches, respectively, above average annual rainfall. Rainfall in 2006 was 13.43 inches below average annual rainfall. A summary of rainfall for 2002 through 2006 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 2006 debt service payment was defeased; therefore, there was no debt service coverage requirement in 2006.

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 2002 through 2006. 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 2002 through 2006 operation and maintenance expenses of the Drainage Department. Expenditures for 2006 increased about 10 percent from 2005 expenditures. Operation and maintenance expenses have increased an average of 7.2 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 2006, shown in Table 25, amounted to $14,196,332.

Summary of Operations

The following tabulation shows a summary of receipts and expenditures of the Drainage Department during 2006:

Total Revenues	$37,695,186
Operation and Maintenance Expense	23,268,254
Claims	2,076,185
Bond Debt Service	2,193,701
Revenue Available for Capital Expenditures (a)	$10,157,046

(a) Unadjusted for depreciation

Proposed Capital Improvement Program

Table 26 presents a summary of the projected major capital improvement program for the period 2007 through 2011. Table 26 is based on estimated improvement program scheduling and cost data taken from the Board's 2007 adopted Capital Budget and the 2008-2011 proposed Capital Program. The five-year major capital improvement program costs are expected to total $802,297,000. 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 2007 through 2011 Capital Budget according to capital project and amount to $471,531,000, 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 2006, 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 2006 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 2007 through 2011 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 2007.

Debt Service Requirements

Nine-mill bonds in the amount of $10,000,000 were issued in 1998, and as of December 31, 2006, $7,100,000 remained outstanding. Additional nine-mill bonds in the amount of $20,000,000 were issued in 2002, and as of December 31, 2006, $17,805,000 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 2007 through 2011.

It is proposed that the program of major capital improvements for the Drainage Department be principally financed through the sale of additional bonds. The proposed revenue bond financing schedule, described more fully in a subsequent section, provides for the issuance of drainage related bonds in the following amounts to meet major capital program requirements through 2011:

2007	$39,000,000
2008	$59,000,000
2009	$61,800,000
2010	$65,700,000
2011	$28,600,000

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.

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 in the amount of $39,000,000 in 2007; $59,000,000 in 2008; $61,800,000 in 2009; $65,700,000 in 2010; and $28,600,000 in 2011 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 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 are shown on Line 13 and net debt service is shown on Line 14.

Line 15 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.

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, 2006, the Board had drawn down $46,011,566 of the $63,710,540 total funds available. During 2007 the Board will drawn down the remaining $17,698,974 funds available. The drainage portion of the 2007 draw down is reflected on Line 16 of Table 31.

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 $3,022,600 net balance of operating funds available at the beginning of the year 2007, 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 2007 through 2011, 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 for each year of the study period.

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 $30,568,100. This amount is based on audited data provided by the Board.

Bond issue amounts for a total of $254,100,000 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.

Financing of the major capital improvement program anticipate the transfer of $52,000,000 in operating reserves 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. For each damaged asset, the Board initiates a project worksheet with the original estimated project cost as determined by Board staff. Once the Board has received bids for the project work, the price is submitted to FEMA and FEMA agrees to an obligated reimbursement amount. If the difference between the original estimated project cost and the obligated amount is greater than $55,000, the Board can have a version written in order to increase the amount of funding from FEMA. If the difference is less than $55,000 FEMA will check the completed work and price and assuming it meets eligibility requirements will agree to reimburse the difference. FEMA will not accept any new project worksheets after June 30; however, if a project worksheet has already been written, costs may be added or revised after this date. Once the Project has been obligated and has invoices against it, then board is able to bring those invoices to the state for payment. The amount of time from when the paperwork is submitted to when the reimbursement is received is approximately 7-14 days.

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 2007-2011 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	
2002	3.97	6.20	10.97	14.47	16.74	22.23	28.06	33.69	56.11	65.89	69.88	74.86	15.53
Average (a)	4.66	9.24	14.44	19.32	24.13	29.70	36.15	42.02	47.77	50.94	54.67	59.33	
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	2.56
Average (a)	4.62	9.21	14.41	19.29	24.07	29.76	36.24	42.09	47.81	50.98	54.72	59.35	
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	3.46
Average (a)	4.61	9.23	14.39	19.30	24.11	29.84	36.30	42.14	47.81	51.00	54.76	59.38	
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	3.19
Average (a)	4.60	9.26	14.41	19.34	24.14	29.86	36.36	42.27	47.91	51.07	54.81	59.41	
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	

(a) Average of Year 1894 to Date.

Table 23

Drainage Department
Historical Revenues Received

	2002	2003	2004	2005	2006
	$	$	$	$	$
Three-mill Ad Valorem Tax	10,312,636	11,031,057	12,199,559	12,990,040	9,682,028
Six-mill Ad Valorem Tax	10,567,048	11,169,140	12,352,092	13,152,643	9,803,052
Nine-mill Ad Valorem Tax	15,946,585	16,735,885	18,508,104	19,707,787	13,686,249
Two-mill Ad Valorem Tax	5,059	7,424	5,192	1,407	3,699
Plumbing License and Inspection Fees	0	0	0	0	0
Interest Earned	1,594,758	966,684	1,259,621	2,539,391	3,571,415
Other	878,022	857,102	971,224	1,013,058	948,743
Total Revenue	39,304,108	40,767,292	45,295,792	49,404,326	37,695,186

Table 24

Drainage Department
Historical Operation and Maintenance Expenses

	2002	2003	2004	2005	2006
	$	$	$	$	$
Management and General Expenses					
Administrative	813,384	761,832	1,417,324	(79,477)	1,540,850
Management Services Director	34,327	32,456	31,395	35,152	26,708
Building and Grounds and Support Services	1,456,467	2,012,076	2,142,492	1,970,916	1,401,622
Personnel Administration	139,018	155,117	160,352	140,723	105,314
Finance Administration	210,791	219,425	221,540	246,375	217,596
Information Systems	682,798	669,008	752,874	865,551	789,841
Purchasing	97,941	91,772	92,872	95,051	76,801
Total Management and General	3,434,726	3,941,686	4,818,849	3,274,291	4,158,732
Operations Expenses					
General Superintendent	88,224	106,109	137,791	81,407	58,127
Drainage Pumping and Central Control	4,993,778	5,198,587	5,448,217	6,322,322	5,137,257
Chief of Operations	34,927	36,287	37,202	35,742	25,400
Water Pumping and Power	2,472,849	3,308,905	4,260,920	5,830,473	8,948,644
Chief of Facilities Maintenance	81,027	41,022	39,706	42,042	21,619
Facilities Maintenance	1,246,930	1,220,339	1,227,592	1,479,832	1,295,357
Central Yard	729,464	850,339	891,602	893,468	713,516
Office of Chief of Network	72,353	53,077	62,037	40,100	32,148
Networks	3,474,597	2,221,412	2,283,389	2,100,297	1,640,000
Engineering	554,462	650,068	607,271	706,332	618,892
Total Operations	13,748,611	13,686,145	14,995,727	17,532,015	18,490,960
Other Expenses					
Special Accounts	482,325	524,886	634,506	705,482	824,875
Payroll Related Expenses	1,318,780	942,252	1,293,774	1,171,306	1,129,437
Overhead Allocation	(1,267,978)	(1,451,655)	(1,484,151)	(1,555,240)	(1,335,750)
Total Other	533,127	15,483	444,129	321,548	618,562
Total Operation and Maintenance (a)	17,716,464	17,643,314	20,258,705	21,127,854	23,268,254

(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)
2006

C.P. #	Project	Actual Expenditures
		$
	Canals	
403	Improvements to Vehicular Bridges	108,444
404	Washington Ave. Canal Improvements	
418	Normal Extensions & Replacements	8,629
439	SWB Part Drng Tchoupitoulas Paving Project	244,523
463	Stormwater Management Plan	
466	Louisiana Avenue Canal	
471	C.O.E. Drainage Study	695,838
474	Terpsichore Canal	
476	Hollygrove Canals	715,255
477	Eng. Design - Claiborne Manifold	
478	S. Claiborne - Lowerline to Monticello Street	
486	Napoleon Canal Improvements	364,334
490	Orleans Ave. Canal (SELA)	
496	General DeGaulle Canal	3,987
497	Florida Ave. Canal - Mazant to Peoples	136,092
498	Dwyer Canal (St. Charles to Dwyer DPS)	
499	Jefferson Avenue Canal	
	Total Drainage Canals	2,277,102
	Pumping Stations	
511	Normal Extensions & Rep./Stations	1,600,455
520	Suction Canal DPS #19	
546	DPS #4 West-Build A 1000 CFS Station	
550	Additions to Drainage Pumping Station #1	
554	Expansion of Dwyer DPS	107,080
555	Design Services for Improvement	
570	Pritchard DPS	
574	Hurricane Katrina Expenses for Drainage System	8,898,548
	Total Drainage Pumping Stations	1,707,535
600	Drainage Share of Power Projects	5,450,693
703	Drainage Reserve for Emergency	
800	Drainage Share of General Budget Items	4,761,002
	Total Drainage Department	14,196,332

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

Table 26

Drainage Department
Proposed Capital Improvements (a)

C.P.#	Project	2007	2008	2009	2010	2011	Total
		$	$	$	$	$	$
	Routine Capital Improvements						
400	Eng. & Inspt. of Devlp. Installations	10,000	10,000	10,000	10,000	10,000	50,000
418	Normal Ext. & Replacements	3,050,000	1,850,000	1,900,000	2,450,000	2,450,000	11,700,000
511	Normal Ext. & Replacement - Stations	6,100,000	4,650,000	4,500,000	4,500,000	4,500,000	24,250,000
600	Drainage Share of Power Projects	7,311,000	4,336,000	5,877,000	2,989,000	239,000	20,752,000
703	Drainage Reserve for Emergencies	0	0	0	0	0	0
800	Drainage Share of General Budget Items	3,774,000	2,821,000	2,724,000	2,130,000	2,113,000	13,562,000
	Total Routine Capital Improvements	20,245,000	13,667,000	15,011,000	12,079,000	9,312,000	70,314,000
	Major Capital Improvements						
403	Improvements to Vehicular Bridges	0	0	0	0	0	0
404	Washington Avenue Canal Improvrments	0	0	0	0	0	0
439	Mains, Over 36" in Street Dept. Contracts	1,580,000	1,690,000	1,790,000	1,900,000	2,000,000	8,960,000
453	Improvements to Metairie Relief Canal	450,000	7,000,000	0	0	0	7,450,000
466	Louisiana Ave. Canal	300,000	100,000	26,250,000	1,850,000	1,250,000	29,750,000
471	SELA Program Management	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	6,000,000
472	Tchoupitoulas Corridor	165,000	4,150,000	2,900,000	0	0	7,215,000
474	Melpomene Street Canal	875,000	0	0	0	0	875,000
476	Hollygrove Canals	600,000	0	0	0	0	600,000
477	S. Claib Manifold - LA Ave. to Nashville Ave.	1,300,000	0	0	0	0	1,300,000
478	S. Claib - Lowerline to Monticello St.	32,100,000	1,500,000	38,150,000	1,500,000	1,000,000	74,250,000
483	Airline & Monticello Canal Improvements	250,000	2,975,000	0	0	0	3,225,000
486	Napoleon Canal Improvements	34,525,000	28,125,000	3,100,000	2,600,000	1,500,000	69,850,000
490	Orleans Ave. Canal	3,250,000	45,500,000	1,000,000	1,300,000	0	51,050,000
492	Donner Canal Improvements	0	2,300,000	0	24,350,000	1,250,000	27,900,000
495	Florida Ave. Canal, Peoples to Elysian Fields	0	250,000	0	26,000,000	1,500,000	27,750,000
496	De Gaulle Canal	10,300,000	1,500,000	52,100,000	1,500,000	1,750,000	67,150,000
497	Florida Ave. Canal, DPS #19 to Peoples	44,750,000	22,200,000	22,000,000	21,750,000	0	110,700,000
498	Dwyer Canal - Lamb to Jourdan	37,500,000	1,100,000	800,000	0	0	39,400,000
499	Jefferson Ave. Canal	300,000	22,350,000	1,150,000	22,300,000	22,400,000	68,500,000
512	Expansion of DPS #15	0	0	0	0	0	0
535	DPS #6	24,300,000	4,000,000	4,000,000	4,000,000	4,000,000	40,300,000
546	Expansion of DPS #4 West	0	0	0	758,000	17,000,000	17,758,000
550	Additions to DPS #1	0	0	0	0	0	0
554	Expansion of Dwyer DPS	4,625,000	625,000	0	0	0	5,250,000
555	DPS #7 Improvements	2,400,000	3,000,000	0	0	0	5,400,000
557	Flood Gate - DPS #16 Discharge Tunnel	2,050,000	0	0	0	0	2,050,000
568	Lakefront Pumping Station	0	0	0	0	0	0
570	Pritchard DPS	0	0	0	0	0	0
571	Harrison Ave. DPS	0	1,000,000	0	8,200,000	600,000	9,800,000
572	Robert E. Lee DPS	0	1,000,000	0	8,200,000	600,000	9,800,000
573	DPS #13 Improvements	2,200,000	0	32,050,000	950,000	0	35,200,000
575	New 60 Hertz Generator for DPS #7	500,000	4,000,000	0	0	0	4,500,000
	Total Major Capital Improvements	205,520,000	155,565,000	186,490,000	128,358,000	56,050,000	731,983,000
	Total Drainage Department Improvements	225,765,000	169,232,000	201,501,000	140,437,000	65,362,000	802,297,000

(a) The improvements for the 2007-2011 period are based on the budget dated December 12, 2006.

Table 27

Drainage Department
Projected Participation by Others (a)

C.P.#	Project	2007	2008	2009	2010	2011	Total
		$	$	$	$	$	$
453	Improvements to Metairie Relief Canal	108,000	1,680,000				1,788,000
466	Louisiana Ave. Canal	225,000	75,000	17,100,000			17,400,000
472	Tchoupitoulas Corridor	1,000,000	850,000				1,850,000
476	Hollygrove Canals	450,000					450,000
477	S. Claib - Manifold-Louisiana Ave to Nashville	600,000					600,000
478	S. Claib - Lowerline to Monticello St.	24,075,000	1,125,000	28,613,000	1,125,000	750,000	55,688,000
486	Napoleon Canal Improvements	25,894,000	21,094,000	2,325,000	1,950,000	937,000	52,200,000
490	Orleans Ave. Canal	2,438,000	34,125,000	750,000	975,000		38,288,000
492	Donner Canal Improvements		1,725,000		18,263,000	937,000	20,925,000
496	De Gaulle Canal	7,725,000	1,125,000	39,075,000	1,125,000	1,313,000	50,363,000
497	Florida Ave. Canal, DPS #19 to Peoples	33,563,000	16,650,000	16,500,000	16,312,000		83,025,000
498	Dwyer Canal - Lamb to Jourdan	28,125,000	825,000	600,000			29,550,000
499	Jefferson Ave. Canal	225,000	16,762,000	863,000	16,725,000	16,800,000	51,375,000
520	DPS #19 Generators						0
535	DPS #6	5,832,000	960,000	960,000	960,000	960,000	9,672,000
546	Expansion of DPS #4 West				569,000	12,750,000	13,319,000
554	Expansion of Dwyer DPS	3,469,000	469,000				3,938,000
568	Lakefront Pumping Station						0
571	Harrison Ave. DPS		750,000		6,150,000	450,000	7,350,000
572	Robert E. Lee DPS		750,000		6,150,000	450,000	7,350,000
573	DPS #13 Improvements	1,650,000		24,037,000	713,000		26,400,000
	Total	135,379,000	98,965,000	130,823,000	71,017,000	35,347,000	471,531,000

(a) The improvements for the 2007-2011 period are based on the budget dated December 12, 2006.

Table 28

Drainage Department
Projected Operating Revenues

Year	Ad Valorem Tax Revenue				
	Three-Mill	Six-Mill	Nine-Mill	Other	Total
	$	$	$	$	$
2007	11,348,800	11,470,700	17,085,200	900,000	40,804,700
2008	11,571,800	11,696,100	17,421,000	900,000	41,588,900
2009	11,799,200	11,926,000	17,763,400	900,000	42,388,600
2010	12,031,100	12,160,400	18,112,500	900,000	43,204,000
2011	12,267,500	12,399,400	18,468,500	900,000	44,035,400

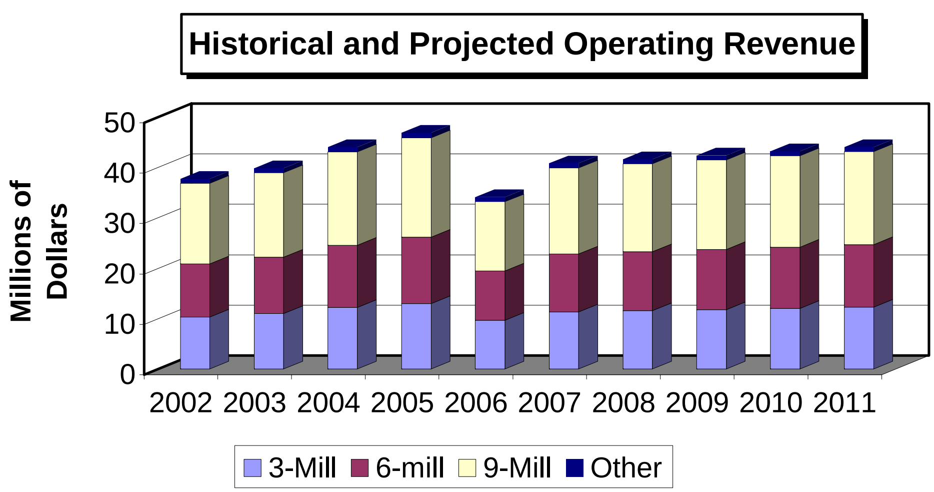

Table 29

Drainage Department
Projected Operation and Maintenance Expenses

	2007 (a)	2008	2009	2010	2011
	$	$	$	$	$
Management and General Expenses					
Administrative	1,260,300	1,298,100	1,337,000	1,377,100	1,418,400
Management Services Director	9,100	9,400	9,700	9,900	10,200
Building and Grounds and Support Services	1,834,100	1,889,200	1,945,800	2,004,200	2,064,300
Personnel Administration	122,800	126,500	130,300	134,200	138,200
Finance Administration	223,200	229,900	236,800	243,900	251,200
Information Systems	768,400	791,500	815,200	839,700	864,900
Purchasing	109,800	113,100	116,400	119,900	123,500
Total Management and General	4,327,700	4,457,700	4,591,200	4,728,900	4,870,700
Operations Expenses					
General Superintendent	67,800	69,900	72,000	74,100	76,400
Drainage Pumping and Central Control	4,910,600	5,058,000	5,209,700	5,366,000	5,527,000
Chief of Operations	29,500	30,400	31,300	32,300	33,200
Water Pumping and Power	3,730,300	3,842,200	3,957,400	4,076,100	4,198,400
Chief of Facilities Maintenance	24,300	25,100	25,800	26,600	27,400
Facilities Maintenance	1,634,000	1,683,000	1,733,500	1,785,500	1,839,000
Central Yard	672,700	692,900	713,700	735,100	757,100
Office of Chief of Network	39,100	40,300	41,500	42,700	44,000
Networks	1,792,100	1,845,800	1,901,200	1,958,200	2,017,000
Engineering	591,500	609,200	627,500	646,300	665,700
Total Operations	13,491,900	13,896,800	14,313,600	14,742,900	15,185,200
Other Expenses					
Special Accounts	1,416,100	1,458,600	1,502,400	1,547,400	1,593,900
Payroll Related Expenses	1,811,300	1,865,700	1,921,600	1,979,300	2,038,700
Overhead Allocation	(1,505,100)	(1,550,300)	(1,596,800)	(1,644,600)	(1,694,000)
Total Other	1,722,300	1,774,000	1,827,200	1,882,100	1,938,600
Total Operation and Maintenance	19,541,900	20,128,500	20,732,000	21,353,900	21,994,500

(a) Represents the adopted operating budget as of December 12, 2006.

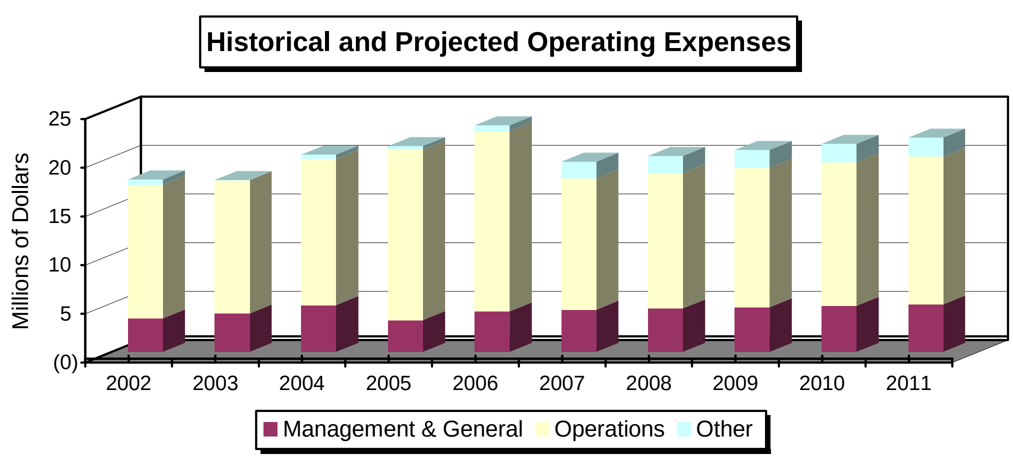

Table 30

Drainage Department
Debt Service Requirements

		2007	2008	2009	2010	2011
		$	$	$	$	$
Nine-Mill Tax Bonds						
Series 1998		784,100	790,100	794,300	792,900	794,600
Series 2002		1,411,700	1,404,800	1,400,200	1,391,000	1,403,100
Total Nine-Mill Debt Service (a)		2,195,800	2,194,900	2,194,500	2,183,900	2,197,700
Proposed Bond Issues						
	Amount of Issue					
	$					
2007	39,000,000	634,300	2,537,000	2,537,000	2,537,000	2,537,000
2008	59,000,000		959,500	3,838,000	3,838,000	3,838,000
2009	61,800,000			1,005,100	4,020,200	4,020,200
2010	65,700,000				1,068,500	4,273,900
2011	28,600,000					465,100
Total Proposed Debt Service		634,300	3,496,500	7,380,100	11,463,700	15,134,200
Total Debt Service		2,830,100	5,691,400	9,574,600	13,647,600	17,331,900

(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		2007	2008	2009	2010	2011
		$	$	$	$	$
	Operating Fund					
1	Three-Mill Ad Valorem Tax Revenue	11,292,400	11,515,800	11,743,700	11,976,100	12,213,100
2	Six-Mill Ad Valorem Tax Revenue	11,413,700	11,639,500	11,869,800	12,104,700	12,344,200
3	Nine-Mill Ad Valorem Tax Revenue	17,000,300	17,336,700	17,679,700	18,029,500	18,386,200
4	Other	900,000	900,000	900,000	900,000	900,000
5	Interest Income	172,500	153,000	138,700	136,400	141,200
6	Total Operating Revenue	40,778,900	41,545,000	42,331,900	43,146,700	43,984,700
7	Operation & Maintenance	19,541,900	20,128,500	20,732,000	21,353,900	21,994,500
8	Provision for Claims	2,472,000	2,546,200	2,622,500	2,701,200	2,782,300
9	Net Operating Revenue	18,765,000	18,870,300	18,977,400	19,091,600	19,207,900
	Debt Service					
10	Existing	2,195,800	2,194,900	2,194,500	2,183,900	2,197,700
11	Proposed	634,300	3,496,500	7,380,100	11,463,700	15,134,200
12	Subtotal	2,830,100	5,691,400	9,574,600	13,647,600	17,331,900
13	Gulf Opportunity Zone Act Loan	(2,195,800)	(534,900)	0	0	0
14	Net Debt Service	634,300	5,156,500	9,574,600	13,647,600	17,331,900
15	Transfer to Construction	22,000,000	13,000,000	10,000,000	5,000,000	2,000,000
16	SCDL Proceeds	5,899,600	0	0	0	0
17	FEMA Federal Assistance Fees	346,500	0	0	0	0
18	Net Annual Balance	181,000	178,900	(597,200)	444,000	(124,000)
19	Beginning of Year Balance	3,022,600	3,203,600	3,382,500	2,785,300	3,229,300
20	End of Year Balance	3,203,600	3,382,500	2,785,300	3,229,300	3,105,300
	Capital Projects Funding					
21	Funds on Hand	30,568,100	(448,000)	160,400	104,700	132,700
22	Revenue Bond Proceeds	39,000,000	59,000,000	61,800,000	65,700,000	28,600,000
23	Operation Fund Transfers	22,000,000	13,000,000	10,000,000	5,000,000	2,000,000
24	Participation by Others	135,379,000	98,965,000	130,823,000	71,017,000	35,347,000
25	Interest Income	268,100	55,400	58,300	62,000	27,900
26	Total Funds Available	227,215,200	170,572,400	202,841,700	141,883,700	66,107,600
27	Routine Annual	20,245,000	13,667,000	15,011,000	12,079,000	9,312,000
28	Major Capital Additions	205,520,000	155,565,000	186,490,000	128,358,000	56,050,000
29	FEMA Cost Share	1,118,200	0	0	0	0
	Issuance Costs					
30	Bond Issuance Expense	780,000	1,180,000	1,236,000	1,314,000	572,000
31	Total Application of Funds	227,663,200	170,412,000	202,737,000	141,751,000	65,934,000
32	End of Year Balance	(448,000)	160,400	104,700	132,700	173,600

Assessment of East Bank Sewerage Stations

ID	Date	Facility Name	Route	Location	Status
1	08/09/2007	Chickasaw	A	Chickasaw at Metropolitan	Portable pump to be used until mechanical repairs are made.
2	08/09/2007	K-Mart	A	Desire at Gentilly	Portable pump; station rehabilitation not started to date.
3	08/09/2007	Station 23	A	4500 Mithra	One pump out of service
4	08/09/2007	Station 17	A	4975 Spain at Selma	One pump out of service
5	08/09/2007	Station 22	A	5705 Perlita	One pump out of service
6	08/09/2007	Station 19	A	3730 Jumonville at Milton	One pump out of service
7	08/09/2007	Station 21	A	6670 Memphis At Filmore	One pump out of service
8	08/09/2007	Station 18	A	Vicksburg at Florida	One pump out of service
9	08/09/2007	City Park	A	5701 Marconi Drive	In service
10	08/09/2007	Station 20	A	328 37th Street	One pump out of service
11	08/09/2007	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	08/09/2007	Lakewood South	A	Country Club Drive near Marconi	One pump out of service
13	08/09/2007	Station 6	A	242 S Solomon at Palmyra	In service
14	08/09/2007	Station 3	A	8720 Olive near Eagle	In service
15	08/09/2007	Station 1	A	7336 Cohn	Portable pump
16	08/09/2007	Station 14	A	4000 Clara	Three pumps out of service. Two pumps in service.
17	08/09/2007	Station 5	A	3912 Erato St	Not in service due to mechanical problems Portable pump.

Assessment of East Bank Sewerage Stations

ID	Date	Facility Name	Route	Location	Status
18	08/09/2007	Station 15	A	2431 Palmyra near Rocheblave	Three pumps out of service
19	08/09/2007	Station 8	A	Corner of N Broad and Toulouse	Not in service due to mechanical problems. Portable pump.
20	08/09/2007	Station 9	A	2540 Annette at Law	In service
1	08/08/2007	Station 16	B	3751 N Miro at Pauline	One pump out of service
2	08/08/2007	Station 24	B	5027 N Tonti at Forstall	Portable pump; stationelectrical rehabilitation completed; no mechanical repairs done.
3	08/08/2007	Station 25	B	2245 Charbonnet	. Portable pump; stationelectrical rehabilitation completed; no mechanical repairs done.
4	08/08/2007	Station 26	B	2244 St Maurice at Tonti	Portable pump; stationelectrical rehabilitation completed; no mechanical repairs done.
5	08/08/2007	Southern Scrap	B	Southern Scrap Rd Harbor Rd	Portable pump; station rehabilitation not started to date; no electrical service at station.
6	08/08/2007	France and Florida	B	2701 France Road	Portable pump; station rehabilitation not initiated
7	08/08/2007	MECO-Mechanical Equipment Company	B	3855 France Road	Portable pump; station rehabilitation not started to date
8	08/08/2007	Victoria at Gentilly	B	3620 Victoria	Portable pump; station rehabilitation not started to date
9	08/08/2007	American Marine	B	4045 Jourdan Rd	Portable pump; station rehabilitation not started to date
10	08/08/2007	Plum Orchard	B	7300 Chef Menteur Highway	Portable pump; station rehabilitation not

Assessment of East Bank Sewerage Stations

ID	Date	Facility Name	Route	Location	Status
					started to date
11	08/08/2007	Dodt	B	8118 Chef Menteur Highway	Portable pump; station rehabilitation not started to date
12	08/08/2007	Castle Manor	B	4950 Gwain at Dwyer	In service.
13	08/08/2007	Cerise	B	5001 Cerise	Electrical and transformer repairs completed; portable pump; roof damage; pumps have not been rebuilt.
14	08/08/2007	McCoy	B	McCoy at Gentilly	In service
15	08/08/2007	Amid	B	6800 Almonaster Road	Electrical repairs completed; portable pump; pumps have not been rebuilt.
16	08/08/2007	Lakeland Terrace	B	5057 Warren Drive	Portable pump; electrical rehabilitation complete; No mechanical repairs initiated
17	08/08/2007	Lake Forest	B	10451 Lake Forest Blvd	Portable pump; station rehabilitation not started to date
18	08/08/2007	Wright Road	B	Wright Road at Lake Forest	Electical Rehabilitation complete; portable pump. No mechanical repairs completed
19	08/08/2007	Bullard	B	5501 Bullard Road	Portable pump; station rehabilitation not started to date; no electrical service at station.
20	08/08/2007	Wilson	B	7709 Wilson Avenue	Portable pump; electrical rehabilitation almost complete; vacuum pumps are being repaired. No mechanical repairs initiated
21	08/08/2007	America	B	6789 Dwyer Road at Westlake	Portable pump; electrical rehabilitation almost complete; vacuum pump and pump belt covers need to be installed. No mechanical repairs initiated.

Assessment of East Bank Sewerage Stations					
ID	**Date**	**Facility Name**	**Route**	**Location**	**Status**
22	08/08/2007	Pines Village	B	6155 Dwyer Road at Foch	One pump out of service
23	08/08/2007	Crowder	B	5500 Crowder Road	Portable pump; station rehabilitation not started to date;
24	08/08/2007	Station B	B	4725 St Claude Avenue	One pump out of service; building damage.
25	08/09/2007	Station A Municipal Auditorium	B	1321 Orleans Avenue	Two pumps out of service
1	08/09/2007	Venetian Isles # 2	C	20711 Old Spanish Trail	Portable pump; station rehabilitation not started to date.
2	08/09/2007	Industrial Parkway	C	4200 Industrial Parkway	One pump out of service
3	08/09/2007	Folgers	C	14601 Gentilly Boulevard	Portable pump; station mechanical rehabilitation not started to date.
4	08/09/2007	Michoud	C	4400 Michoud Boulevard	Portable pump; station rehabilitation not started to date.
5	08/09/2007	Blvd “ X”	C	4433 Chef Menteur Highway	In service
6	08/09/2007	Alcee Fortier	C	Alcee Fortier Blvd at the Levee	In service
7	08/09/2007	Village De Lest	C	11324 Dwyer	Portable pump; station rehabilitation not started to date.
8	08/09/2007	Willow Brook	C	Willowbrook off of Michoud	In service
9	08/09/2007	Oak Island	C	14201 Michoud Blvd	One pump in service
10	08/09/2007	Eastover	C	6051 Eastover Drive	One pump in service
11	08/09/2007	Paris Road	C	Dwyer West of Paris Road	In service
12	08/09/2007	Shorewood	C	14441 Morrison Road	Portable pump; Mechanical issues not addressed
13	08/09/2007	Briarwood Station	C	13701 Morrison Road	Portable pump; station rehabilitation not started to date.

Assessment of East Bank Sewerage Stations					
ID	**Date**	**Facility Name**	**Route**	**Location**	**Status**
14	08/09/2007	Liggett	C	12501 Morrison Road	Portable pump; station rehabilitation not started to date.
15	08/09/2007	Berg	C	11501 Morrison Road	Portable pump; station rehabilitation not started to date.
16	08/09/2007	Weber	C	10141 Morrison Road	Portable pump; station rehabilitation not started to date.
17	08/09/2007	Burke	C	9001 Morrison Road	Portable pump; station rehabilitation not started to date.
18	08/09/2007	Lawrence	C	7900 Morrison Road	Portable pump; station rehabilitation not started to date.
19	08/09/2007	Lamb	C	6450 Morrison Road	Portable pump; station rehabilitation not started to date.
20	08/09/2007	Gentilly Oaks	C	5000 Papania Road at Vienna	In service

Assessment of West Bank Sewerage Stations

ID	Date	Facility Name	Location	Status
1	08/06/2007	Horace	3301 Lawrence Street	In service
2	08/06/2007	Holiday	2799 Holiday Drive	One pump out of service; motor needs to be repaired.
3	08/06/2007	Huntlee	3201 Huntlee	In service
4	08/06/2007	Eton	3440 Eton Street	In service
5	08/06/2007	Aurora	6000 Carlisle Court	In service
6	08/06/2007	Blair	3800 Blair Street	In service
7	08/06/2007	Lower Coast	3700 Old Woodland	In service
8	08/06/2007	English Turn I	2201 Stanton Road	In service
9	08/06/2007	English Turn II	123 ½ Oak Alley	In service; roof damage
10	08/06/2007	English Turn III		In service
11	08/06/2007	Woodland	4150 Woodland Drive	In service
12	08/06/2007	Park Timbers	4100 Lennox Blvd	Out of service; check valve needs to be repaired.
13	08/06/2007	Tall Timbers	3800 Tall Pines Drive	In service
14	08/06/2007	Forest Isle	5631 West Forest Park Drive	Portable pump, service line to be relocated.
15	08/06/2007	Garden Oaks	3201 Memorial Park Drive	In service
16	08/06/2007	Memorial	2501 Memorial Park Drive	Portable pump
17	08/06/2007	Bridge Plaza	2914 Vespasian Street	One pump in service.

Assessment of East Bank Drainage Stations

ID	Date	Facility Name	Location	Status
1	08/07/2007	Station 6	345 Orpheum	Two pumps out of service
2	08/07/2007	Station 4	5700 Warrington Drive	Two pumps out of service; roof damage.
3	08/07/2007	Station 12	Robert E Lee and Ponchartrain Boulevard	One vacuum pump out of service
4	08/07/2007	I-10 Pump Station	I-10 Service Road	One pump out of service
5	08/07/2007	St. Charles Station 16	Danube Road at Wales	One pump out of service
6	08/07/2007	Citrus Station 10		In service
7	08/07/2007	Station 14	Oneida at Haynes	One pump out of service; roof damage.
8	08/07/2007	Maxent	Alcee Fortier	Station vandalized; rehabilitation not started to date.
9	08/07/2007	Industrial Boulevard	Industrial Boulevard	Two pumps out of service
10	08/07/2007	Grant Street	Grant Street at Gentilly Boulevard	Two pumps out of service
11	08/07/2007	Amid Station 20	6300 Intercoastal Waterway at Terminal Road	One pump out of service; roof damage.
12	08/07/2007	Elaine		rehabilitation not started to date
13	08/07/2007	Station 5	Florida Avenue	In service
14	08/07/2007	Station 3	2251 N Broad Street	Two pumps out of service because discharge gates are inoperable
15	08/07/2007	Station 7	5741 Orleans Avenue at Marconi Drive	Control center has termite damage; three pumps out of service
16	08/07/2007	Station 2	444 N Broad Street	In service; building damage; control room SCADA cabinet inoperable.
17	08/07/2007	Station 1	2501 S Broad Street	Sluice gates inoperable
18	08/07/2007	Canal Boulevard	5500 Canal Boulevard	In service
19	08/07/2007	Oleander	9400 Oleander	One pump out of service

Assessment of East Bank Drainage Stations				
ID	**Date**	**Facility Name**	**Location**	**Status**
20	08/07/2007	Pritchard	2901 Monticello	In service
21	08/07/2007	Station 19	4500 Florida Avenue	One pump out of service
22	08/07/2007	Station 17	2801 Florida Avenue	In service

Assessment of West Bank Drainage Stations				
ID	**Date**	**Facility Name**	**Location**	**Status**
1	08/07/2007	Station 11	5301 East Sixth Street	In service; ACOE repairing floodwall at station
2	08/07/2007	Station 13	4201 Tall Spruce Drive	One pump out of service

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