

DRAFT SUBJECT TO CHANGE

Appendix D

**Report on the
Financial Feasibility of
The Metropolitan St. Louis Sewer District
Wastewater System Revenue Bonds, Series 2011A**

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June 15, 2011

Board of Trustees
The Metropolitan St. Louis Sewer District
2350 Market Street
St. Louis, MO 63103-2555

We are submitting herewith our Financial Feasibility report prepared at the request of The Metropolitan St. Louis Sewer District (“District”) in connection with the proposed issuance of its Wastewater System Revenue Bonds, Series 2011A (“Series 2011A Bonds”). The purpose of this report is to summarize findings of studies performed by Black & Veatch Corporation (“Black & Veatch”) related to the wastewater system of the District (“System”). This report provides a financial feasibility analysis of the District’s Capital Improvement and Replacement Program (“CIRP”) as it relates to the issuance of the proposed Series 2011A Bonds. This report also addresses other technical and financial issues that affect the operation of the System and the District’s ability to issue and repay wastewater revenue bonds issued during the six-year study period of fiscal years 2011 through 2016, where the District’s fiscal year ends on June 30 of each year.

In preparing this report, Black & Veatch has examined the financial operations of the District through reviews of financial reports, operating and capital budgets, and other statistical and financial information, and through discussions with the District’s financial staff. We have performed various financial tests and analyses necessary to support our findings and opinions.

In the preparation of the forecast of future operations summarized in this report, Black & Veatch has made certain assumptions with respect to conditions, events, and circumstances which may occur in the future. The methodologies utilized in performing our studies follow generally accepted industry practice. While Black & Veatch believes such assumptions are reasonable and attainable for the purpose of forecasting the District’s future operations, the actual results may differ materially from the forecasts as influenced by the conditions, events, and circumstances which actually occur.

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

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The results of our investigations and analyses are presented in the report, with separate sections describing institutional framework, wastewater system financing, and bond covenant compliance. Our summary findings and opinions, which are discussed more fully in the report, are as follows:

Institutional Framework

- The District was established under the provisions of Section 30 of Article VI of the Constitution of Missouri. This section also provided specific procedures for drafting a plan ("1954 Plan" or "Plan") under which the District would be formed and operated. The Plan was approved by the voters in 1954. The Plan was challenged in 1955 but found to be constitutional by the Missouri Supreme Court. Amendments to the Plan were approved by voters at a special election held on November 7, 2000. Additional amendments recommended

by a Plan Amendment Commission in May 2010 have been submitted to the Board for their consideration pursuant to the decennial requirement of the amended Plan or Charter.

- The District is managed by a Board of Trustees (“Board”) which appoints the three-member Civil Service Commission, Internal Auditor, Secretary-Treasurer, Executive Director and various community organizations to serve on the Rate Commission. The Executive Director appoints the General Counsel and the directors of the five operating departments. An organization chart of the District is shown in Figure 1 of the report.
- All seven of the District’s wastewater treatment facilities have received peak performance awards for the past four calendar years.
- Authorized staffing has increased from 852 positions in 2004 when the first series of revenue bonds were sold to 944 budgeted positions in 2012, a 10.8 percent increase during the nine year period. The current authorized staffing level for wastewater operations is expected to remain relatively stable through fiscal year 2016. Current staffing levels are able to meet operating requirements, with about 95 percent of all authorized positions filled.
- The District is able to quickly and efficiently procure the services of qualified engineering, architectural, and survey consultants as needed due to an effective consultant procurement process.
- Strategic planning efforts are annually conducted by the District to align the District’s vision, mission and values with specific strategies necessary to accomplish the District’s goals. The District outlines these strategies each year in a Strategic Business and Operating Plan. The current strategic business plan covers fiscal years 2012 through 2016.

Wastewater System Financing

- The District has developed a detailed CIRP required to meet regulatory requirements, maintain the integrity of the System, and continue to address water quality issues. During the six-year study period, the District plans to spend approximately \$1.3 billion on major capital improvements to the System.
- As shown in Table 3 of the report, projected capital program requirements are projected to be funded from a combination of available funds on hand, senior and subordinate revenue bond proceeds, annual operating revenues, grants, and interest income. Approximately 77.1 percent of total major capital improvement expenditures are anticipated to be debt financed with about 21.5 percent of improvements financed directly from operating revenues and the drawdown of available fund balances. The remaining 1.4 percent of major capital improvements are anticipated to be financed by contributions and interest earned on construction funds.
- The average number of wastewater customers served by the District is approximately 425,600. Modest decreases in the number of customers are projected for the study period based on analysis of past growth trends.

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- District revenue is derived principally from charges for wastewater service. The existing schedule of wastewater rates has been in effect since July 1, 2010. The Board adopted these wastewater rates on January 14, 2010 by Ordinance 13021. The Board has also accepted wastewater rates recommended by the Rate Commission for fiscal year 2012 which are planned to be effective on July 1, 2011. In addition, a new rate proposal was submitted to the Rate Commission on May 10, 2011 that proposes new wastewater rates for fiscal years 2013 through 2016.
- The District has four senior revenue bond issues and eight subordinate series of revenue bonds issued under the state's revolving fund ("SRF") loan program currently outstanding. It is expected that after issuance of the Bonds, a ninth series of subordinate revenue bonds, will be issued under the SRF loan program. Issuance of this debt will fully utilize the total revenue bond authorization approved by the voters of the District at elections held on February 3, 2004 (\$500 million) and August 5, 2008 (\$275 million).
- A summary of the project categories financed by the 2004 and 2008 bond authorizations utilized to date is summarized in the table below.

Use of Bond Authorizations	
Project Category	Amount
2004 Bond Authorization	\$millions
Lower Meramec Treatment Plant	177
Coldwater Creek Treatment Plant Improvements	61
Missouri River Plant Rehab & Improvements	52
Grand Glaize Plant Improvements	35
Other Treatment Plant Projects	24
CSO/SSO Collection System Improvements	80
Cityshed Capacity	7
Contingencies and Costs of Issuance	3
Bond Reserve for Series 2004A Bonds	21
Lemay WWTP Improvements	40
Total 2004 Authorization Utilized	500
2008 Bond Authorization	
Lemay WWTP Improvements	62
Missouri River WWTP Improvements	50
Bissell Point WWTP Improvements	7
CSO/SSO Collection System Improvements	57
Cityshed Capacity	7
Total 2008 Authorization Utilized	183

WWTP - Wastewater Treatment Plant

CSO/SSO - Combined Sewer Overflow/Sanitary Sewer Overflow

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- Proceeds of the Series 2011A Bonds will be used to construct additional disinfection facilities at the Bissell Point, Lemay and Coldwater Creek wastewater treatment plants. A SRF Loan of \$39,999,300 is expected to be issued by November 1, 2011. This issuance will use the remainder of the 2008 Bond Authorization.
- The Master Bond Ordinance adopted by the Board on April 22, 2004, as supplemented and amended by ordinances adopted by the Board for each bond issue, including the ordinance expected to be adopted by the Board for the proposed Series 2011A Bonds (collectively, the “Bond Ordinance”) establishes covenants between the District and bondholders and various terms and conditions related to the Bonds.
- The cash flow analysis of projected wastewater utility revenue and revenue requirements presented in Table 11 of the report shows that projected revenues, including projected revenue increases, will produce sufficient revenues to adequately operate and maintain the System, provide debt service coverage in excess of the requirements of the Bond Ordinance and continue full funding of the CIRP.
- Based on the financial projections and analyses presented in the report, it is our opinion that the District will be able to adequately finance the CIRP, meet all known cash requirements of the System, and comply with all Bond Ordinance requirements during the six-year study period.

Bond Covenant Compliance

- The Board approved wastewater charges for fiscal year 2012 and proposed wastewater charges for fiscal years 2013 through 2016, currently under consideration by the Rate Commission, will allow the District to issue additional revenue bonds within the study period, as currently anticipated, and make needed improvements and replacements of the System.
- Indicated debt service coverage levels are above the minimum Bond Ordinance requirements and the District is currently in compliance with all other bond covenants.

Conclusion

- Based on the financial study performed by Black & Veatch related to the System, we believe that the District’s organizational structure, planned CIRP, and financing plans are sound for purposes of supporting the pending Series 2011A Bonds and subsequent bonds required to support the full implementation of the CIRP for the 2011 through 2016 fiscal years.

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The summary statements presented in this letter do not address all of the issues examined and described in the full report. Accordingly, the findings and conclusions presented herein should not be considered complete except in the context of the detailed descriptions and information contained in the report.

We appreciate the opportunity to be of service to the District in this important matter.

Very truly yours,

BLACK & VEATCH CORPORATION

Keith D. Barber, P.E.
Principal Consultant

John Kerston
Vice President

KDB
Enclosure

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**Report on the
Financial Feasibility of
The Metropolitan St. Louis Sewer District
Wastewater System Revenue Bonds, Series 2011A**

Introduction

The Metropolitan St. Louis Sewer District (“District”) is responsible for providing wastewater and stormwater services for the City of St. Louis, Missouri (“City”) and most of St. Louis County, Missouri (“County”). In order to continue to improve and expand its wastewater system (“System”) and keep the System in compliance with state and federal regulations, the District has developed a major capital improvement and replacement program (“CIRP”). To provide for equitable recovery of capital financing costs from existing and future wastewater customers, the District plans to partially finance System improvements by the issuance of long-term debt. The remainder of the funds required to finance the CIRP will be obtained from annual operating revenues, interest income, grants and contributions, and funds on hand.

The District is governed by a Board of Trustees (“Board”), which is comprised of six members, three of whom are appointed by the Mayor of the City and three of whom are appointed by the County Executive of the County. The Board enacts ordinances, adopts annual budgets and determines District policies. The Board also appoints the Executive Director, the Secretary-Treasurer, the Internal Auditor and various organizations that serve staggered terms on the Rate Commission. The Executive Director appoints the General Counsel and the directors of the five operating departments.

Revenue bonds are issued pursuant to the District’s Charter, which was approved by the voters of the City and the County at a special election held on February 4, 1954 (“1954 Plan” or “Plan”) and amended at a special election held on November 7, 2000 (“Charter”). Assent of the majority of voters voting at the initial bond authorization election held on February 3, 2004 authorized the District to issue up to \$500 million of wastewater revenue bonds. A second authorization was approved by the majority of voters on August 5, 2008, which authorized the District to issue up to \$275 million of additional wastewater revenue bonds. A third authorization of up to \$1 billion is expected to be placed before the voters in April 2012. All bonds are issued under the provisions of the Master Bond Ordinance adopted by the Board on April 22, 2004, as supplemented and amended by ordinances adopted by the Board for each bond issue including the ordinance expected to be adopted by the Board on

July 12, 2011 (collectively, the “Bond Ordinance”) for the proposed Wastewater System Revenue Bonds, Series 2011A (“Series 2011A Bonds”).

Background

The District was created under the provisions of Section 30 of Article VI of the Missouri Constitution. This section empowered the people of the City and the County “to establish a metropolitan district or districts for the functional administration of services common to the area included therein” based on their approval of a plan submitted to them by Members of the Board of Freeholders. The District is the only special district in Missouri created under these provisions.

To enable the District to sell revenue bonds on a district-wide basis, and update other key provisions of the 1954 Plan, the Board submitted four propositions to the voters in November 2000. All four propositions passed, with three of the propositions receiving more than 70 percent of the popular vote. Several additional key changes to the 1954 Plan also affect the District’s capital improvement and financial planning process. These key revisions:

- Established a requirement to annually develop and adopt a continuing five-year Strategic and Operating Plan for the District.
- Lowered the majority vote required to pass revenue bonds from four-sevenths to a simple majority and changed the majority vote required for passage of general obligation bonds from two-thirds to the requirement currently specified by Article VI, Section 26(b) of the Missouri Constitution, which is a four-sevenths majority at primary or general elections and two-thirds majority at all other elections.
- Allow the issuance of revenue bonds through a negotiated sale process.
- Established an independent Rate Commission charged with the responsibilities to review and make recommendations to the Board regarding all proposed changes in wastewater and stormwater rates.
- Provide the ability to invest funds in the same manner permitted the state and other Missouri public bodies.
- Require that a management audit be conducted every five years by a nationally recognized management consulting firm.
- Require a mandatory rotation of auditors every five years and formally established the Internal Auditor position.
- Provide for the appointment of a Plan Amendment Commission every ten years to review and recommend potential amendments to the Charter.

Other Charter revisions set a maximum two term (8 years) limit on the Trustees and Civil Service Commission appointments, require the publication of Board vacancies, and

require the Board to make a written report to the Mayor and Board of Aldermen of the City and to the County Executive and County Council of the County on an annual basis.

A Plan Amendment Commission was formed in July 2009 pursuant to Charter requirements to discuss and draft recommendations for possible additional amendments to the Charter. The Commission and supporting District staff met regularly through May 2010 and sought and reviewed comments from stakeholders. The Commission's recommendations and stakeholder comments are presented in the 2010 Plan Amendment Commission Report and Recommendations document submitted on May 27, 2010. All recommendations presented in the Commission report that were approved by eight or more members are currently being considered by the Board. If the Board determines that the recommended revisions are necessary and beneficial, those revisions will be presented to registered voters for their consideration and possible approval by a majority vote.

Purpose

The purpose of this report is to summarize findings of the financial study performed by Black & Veatch related to the System and independently assesses the financial feasibility of the District's proposed issuance of the Series 2011A Bonds. This report addresses financial issues that affect the operation of the System and the District's ability to issue and repay wastewater revenue bonds.

Scope

This report addresses the organization and management of the District. Also included are the results of analyses related to existing and future financial requirements of the System based on a review of financial reports, ordinances, budgets and other information. Information from these documents was supplemented through meetings and conversations with key District representatives. Projections of revenue and revenue requirements of the System are shown in this report for a study period that includes fiscal years 2011 through 2016.

Evaluation of the financial feasibility of the proposed Series 2011A Bonds is based upon a review of historical financial information provided by the District, an examination of revenue and expenditure projections by District staff and Black & Veatch, and the preparation of cash flow analyses examining projected System operation and capital programming financing through fiscal year 2016. The level of debt service coverage for the proposed Series 2011A Bonds and subsequent bonds issued through fiscal year 2016 is determined and compared with requirements of the Bond Ordinance.

Black & Veatch Qualifications

Black & Veatch is one of the largest and most experienced firms of consulting engineers specializing in utility engineering and has extensive experience in the planning, design, and operation analysis of wastewater systems. In addition, the firm has extensive experience in assisting utilities with management and financial aspects of their operations. The firm has been engaged in various assignments for thousands of clients, including municipally-owned utilities ranging in size from small villages to large metropolitan regions; investor-owned utilities; industrial and commercial businesses; and agencies of the U.S. Government. Over the past 40 years, Black & Veatch has provided numerous planning, design, and financial services for the District.

The financial, organization, and management reviews have been performed by personnel from Black & Veatch Management Consulting, which provides specialized services in such areas as utility rate studies, revenue bond feasibility studies, best practice studies, organizational strengthening studies, and other management related services. Black & Veatch Management Consulting has assisted the District with its wastewater rates and other financial matters on a continuous basis since 1975. This includes prior revenue bond feasibility work related to the successful first issuance of district-wide revenue bonds in April 2004 and development of the District's existing and currently proposed wastewater rates.

Institutional Framework

The institutional framework of the District's wastewater utility operation provides the basis and direction under which the System is operated, maintained, improved, and expanded. Such framework includes the District's enabling legislation, organization, staffing, and means of retaining assistance for the design and construction of major capital improvements.

Enabling Legislation

The District was established under the provisions of Section 30 of Article VI of the Constitution of Missouri. This section states that the "people of the city of St. Louis and the people of the county of St. Louis shall have power...to establish a metropolitan district or districts for the functional administration of services common to the area included therein...." This section also provided specific procedures for a nineteen member Board of Freeholders to draft a plan under which the District would be formed and operated for consideration by qualified voters within the affected region. At a special election held on February 9, 1954, the voters approved the proposed Plan. Section 30(b) of Article VI of the Missouri Constitution provides that upon adoption of the Plan, it "shall become the organic law of the territory therein defined, and shall take the place of and supersede all laws, charter provisions and ordinances inconsistent therewith relating to said territory."

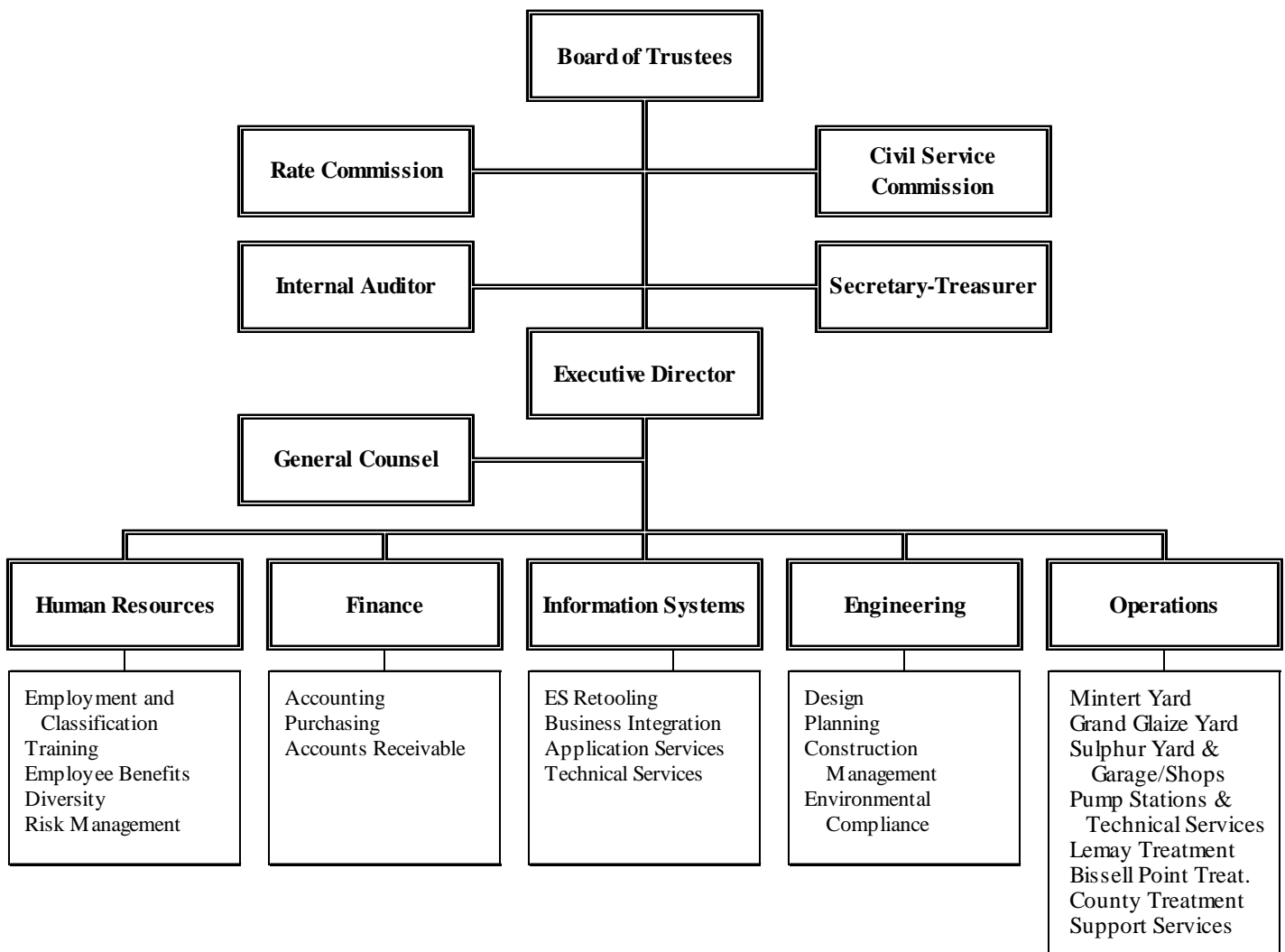
The 1954 Plan was challenged in 1955 and found to be constitutional by the Missouri Supreme Court (State on Inf. Dalton v. Metropolitan St. Louis Sewer District, 275 S.W.2d 225). This case also defined "functional administration" to mean the administration of such services so as to make them function properly for the purposes for which they were intended.

Amendments to the Plan were approved by voters at a special election held on November 7, 2000. The revised Plan or Charter defines the District as "a body corporate, a municipal corporation, and a political subdivision of the state, with power to adopt, use, and alter at its pleasure a corporate seal, sue and be sued, contract and be contracted with, and in other ways to act as a public corporation within the purview of this Plan, and shall have the powers, duties, and functions as herein prescribed" (Charter Section 1.010). Additional amendments recommended by a Plan Amendment Commission in May 2010 have been submitted to the Board pursuant to the requirements of the Charter. Any recommendations approved by the Board must be submitted to the voters at a future election. However, the Board is also considering various options that balance the cost of an election with the benefits gained by making the recommended Charter changes. At this time no decision has been reached on whether or not the District will seek a Charter change election.

Organization

Figure 1 presents an organization chart of the District. As indicated, the District is managed by a Board of Trustees. The Board appoints community organizations to serve on the Rate Commission, the three-member Civil Service Commission, Internal Auditor, Secretary-Treasurer, and Executive Director. The Executive Director appoints the General Counsel and the directors of the five operating departments.

**Figure 1
Metropolitan St. Louis Sewer District
Organization Chart**



Board of Trustees

The Board is composed of six members, three of whom are appointed by the Mayor of the City and three of whom are appointed by the County Executive of the County. Each

Trustee is appointed for a four year term and may not serve more than two consecutive terms. Also, no more than two Trustees appointed by the City or County can be affiliated with the same political party. Trustees must be registered voters, have lived in their representative areas for at least three years, and continue to reside in their respective areas for the tenure of their office. A Trustee can not hold “an office of profit under the United States or any state or local government” with the exception of serving in an organized militia, reserve corps, or as a public notary. They must not “have been convicted of a felony, malfeasance in office, bribery, or other corrupt practice, or of a misdemeanor involving moral turpitude” (Charter Section 5.020).

The Board enacts ordinances, adopts annual budgets, and determines District policies. A majority of both City and County Trustees is required to approve an ordinance. Members appoint a chair and vice-chair to manage Board meetings, with these positions alternating between the City and County representatives every two years. Board members chair one of five standing Board committees. These committees include Audit, Finance, Program Management, Pension and Stakeholder Relations. Each committee is allowed to have citizen advisors that can serve one year terms if approved by the Board and continue to serve up to three years with annual Board approval. The Board conducts its business under rules and procedures periodically adopted by resolution. The current rules were adopted by Resolution 2941 on November 10, 2010.

Rate Commission

The Charter provides for the formation of an independent Rate Commission “to review and make recommendations to the Board regarding all proposed changes in wastewater rates, stormwater rates and tax rates or change in the structure of any of the foregoing” (Charter Section 7.040). Organizations are selected to provide a diverse mixture of residential customers, commercial and industrial customers, environmental interests, labor interests, community and neighborhood organizations, and nonprofit organizations. Each Rate Commission member serves a six-year staggered term that allows re-appointment or replacement of five members of the Rate Commission every two years. The Rate Commission performs its duties under a set of Operational Rules, Regulations, and Procedures, as amended. These rules were most recently amended by the Rate Commission on March 7, 2011.

Civil Service Commission

Section 8.020 of the Charter requires the Board to appoint a three member Civil Service Commission. The qualifications for these members are the same as those for the Board plus members must be “persons who are known to be in sympathy with the application of merit principles to public employment” (Charter Section 8.020). The duties of the Civil

Service Commission include: (1) advising the Board, Executive Director, and Human Resources Director on problems concerning personnel administration; (2) reporting to the Board at least once a year concerning personnel administration matters; (3) recommending civil service rules to the Board; (4) hearing appeals from disciplinary actions; and (5) fostering the improvement of personnel standards and conditions in the District.

Internal Auditor

The Internal Auditor is the auditing officer of the District as provided by Section 7.030 of the Charter. This position is appointed directly by the Board and may be held by either an individual or a firm of Certified Public Accountants if such firm has no personal or financial interest in District affairs or have any material financial relationship with any Trustee or any officer of the District. The Internal Auditor must have at least ten years experience in accounting. The duties of the Internal Auditor include: (1) review and recommend periodic changes to the District's accounting system; (2) audit the accounts and records of accountable officers and employees of the District; (3) investigate matters relating to the receipt, disbursement and application of public funds; (4) perform investigations and create reports on fiscal matters required by the Board; (5) perform periodic operational audits and recommend potential changes to the Board; (6) evaluate compliance with District policies, ordinances, Charter, and third party agreements; (7) examine District staff and others as required to complete an investigation; and (8) perform such other duties as may be required by the Board.

The Mission of the Internal Auditor is to provide independent, objective assurance and consulting services designed to add value and improve the operations of the District. The Department assists the Board and the Executive Director in accomplishing their oversight responsibilities by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, internal control, and governance processes.

On June 11, 2009, the Board of Trustees adopted Ordinances 12892, 12893 and 12894 which authorized the District to enter into contracts with three accounting firms: (1) Jefferson Wells; (2) Rubin Brown, LLP; and (3) Stone Carlie and Company, LLC. The current contracts have two-year terms that expire on June 30, 2011. Beginning in July 2012 the District will be co-sourcing its audit function. Two firms, Brown Smith & Wallace and Deloitte & Touche will be awarded general service contracts for this work which will be controlled by an Internal Audit Administrator retained by the District. This arrangement allows the District to provide independent audit services at lower costs than potential full-time in-house services while receiving required specialized audit skills of the respective firms.

Secretary-Treasurer

Section 7.020 of the Charter requires the Board to appoint a Secretary-Treasurer who “shall have at least ten years experience in the management and investment of public funds, and have knowledge of banking operations and municipal accounting.” The duties of this position include: (1) maintain a journal of Board proceedings and all ordinances, resolutions, regulations, rules, and orders; (2) make daily deposits of District revenues; (3) invest available District funds; (4) pay money out of the treasury on warrants drawn by the Executive Director or Finance Director; (5) appoint and remove any employees provided for his/her office, subject to personnel provisions; (6) foster the improvement of personnel standards and conditions in the District; and (7) perform such other duties as are required by the Board. The department is organized and operated by the following four functions: (1) Secretary, to maintain all records of the District; (2) Treasurer, to handle and invest the available funds of the District; (3) Audit, to serve as the administrative coordinator for an independent audit of the District’s financial records; and (4) Elections, to assure that the relevant issues are placed on the ballot in an appropriate and timely fashion and monitor District funds used by the Board of Election Commissioners.

The Mission of the Secretary-Treasurer is to serve as the Secretary to the Board of Trustee, manage District funds, provide administrative support and oversight to the Audit function, and provide services to all customers.

The District approved its investment policy (as required by Ordinance 10908) on February 8, 2001 through Resolution 2389. It was also formally certified by the Association of Public Treasurers of the United States and Canada in July 2005. Such certification acknowledges that the District’s investment policy has met all of the Association’s critical elements such as liquidity; selection and review of suitable investment instruments; internal controls; reporting; portfolio diversification; custody and safekeeping; selection of investment institution criteria; ethics; and conflicts of interest.

Executive Director

The Executive Director is “the chief executive and administrative officer of the District and all subdistricts” and is “responsible to the Board for the proper administration of all affairs of the District and all subdistricts” (Charter Section 6.010). To qualify for this position, a person must be a registered professional engineer, possess technical or specialized skill or knowledge in the field of engineering, and have at least ten years of practical experience as an engineer with at least five years in a responsible

The Mission of the Executive Director is to ensure that all affairs of the District are in accordance with the Charter of the District and the policies of the Board of Trustees and to inform and engage the stakeholders regarding the services they receive from the District and the District’s importance to the community.

administrative and executive capacity.¹ The duties of the Executive Director include: (1) appoint and, when necessary, remove all officers and employees of the District, except as otherwise provided by the Charter or delegated to department heads; (2) prepare and submit an annual budget to the Board; (3) prepare and submit an annual report of the finances and administrative activities of the District to the Board; (4) advise the Board of the District's financial condition and make recommendations concerning future needs; (5) attend all Board meetings and, in so far as possible, its committee meetings; (6) enforce all District ordinances and see that all contracts are faithfully performed; (7) foster the improvement of personnel standards and conditions in the District; and (8) perform such other duties as may be prescribed by the Charter or required by the Board which are not inconsistent with the Charter. This department is organized under two major functions: (1) District Administration, and (2) Public Information. The District Administration function is responsible for the administration of all affairs of the District in accordance with the Charter and as directed by the Board. Efforts to inform the District's rate payers about the services they receive from the District and the District's importance to the community is the responsibility of the Public Information function.

General Counsel

The General Counsel oversees all legal matters affecting the District including specialized matters that may require legal assistance from private law firms. This department has the following three major organizational functions: (1) Legal Administration; (2) Litigation and Claims; and (3) Collection Litigation. The Legal Administration function is responsible for all legal matters involving or affecting the District and provides legal services

The Mission of the General Counsel is to handle all legal matters involving or affecting the District. The Department provides legal services and guidance as requested or required by the Board of Trustees, Executive Director and District staff.

as required by the Board or Executive Director. It also has the responsibility of coordinating with federal, state, and local officials to secure additional support as required and informing public officials about the beneficial services provided by the District. The Litigation and Claims function handles all litigation and claims involving the District, and supervises outside counsel, if required. The Collection Litigation function assists the Finance Department in the collection of delinquent customer accounts and any other amounts due the District.

¹ The 2010 Plan Amendment Commission has recommended that these requirements be revised to remove the registered professional engineer requirement. The recommended qualifications for this position require "at least ten years of progressive professional experience at a leadership level and an appropriate graduate degree or professional certification."

Human Resources

The Director of Human Resources supervises all personnel related issues. These issues are addressed by the five functional areas of Training; Employee Benefits; Employment and Classification; Diversity; and Risk Management. Training activities are designed to help achieve the District's Strategic Business and Operating Plan by administering programs to improve employee performance.

The Employee Benefits function administers and communicates employee benefit programs consistent with the Charter and ensures proper fiscal management of all benefit programs. Responsibilities of ensuring accurate job descriptions; job performance accountabilities and performance standards; employee recruitment; internal job posting and promotional opportunities; and consistent compensation practices are part of the Employment and Classification function. The Diversity function develops, recommends, implements, and administers policies, procedures and programs which advance the District's commitment to inclusion in all of its activities and communicates these to internal personnel and others. This function also administers District policies and goals related to the inclusion of minority and women business owners in District contracts. The protection of the District's assets from loss is the responsibility of the Risk Management function.

The Mission of the Human Resources Department is to support a learning and business oriented culture based on accountability. This Department measures its success by customer's satisfaction with performance in accomplishing mutual objectives.

Finance

Section 7.010 of the Charter states that the Director of Finance "shall have charge of the administration of the financial affairs of the District and all subdistricts, subject to the supervision and direction of the Executive Director."

This section also requires the Finance Director to "have knowledge of municipal accounting and taxation and shall have had experience in budgeting and finance control." The duties of the Director of Finance include: (1) assisting the Executive Director in the preparation of the annual operating and capital budgets; (2) maintaining the District's financial records; (3) prescribing reimbursement documentation criteria; (4) certifying that sufficient funds are available before a contract is executed; (5) auditing and approving bills and other District expenditures prior to payment; (6) inspecting, supervising, and auditing all financial transactions; (7) contracting for, purchasing, storing, and distributing all supplies, materials, and equipment required by any department; and (8) performing such other duties as may be imposed by the Executive Director or by ordinance.

The Mission of the Finance Department is to manage the District's costs and revenues to improve financial performance.

The Finance Department is organized into three functional areas. These areas include (1) Accounting; (2) Purchasing, and (3) Accounts Receivable which also includes the District's Customer Billing Call Center. The Accounting function ensures that District payments and receipts are properly authorized, recorded and reported in accordance with District policy and generally accepted accounting principles. It also prepares the District's annual operating budget, debt service report, and capital improvement and replacement program. The Purchasing function is responsible for contracting all of the supplies, materials, equipment, construction repairs, professional services, and improvement construction projects required by the District. It is also responsible for the timely disposal of all surplus property and equipment. The Account Receivable function generates monthly customer bills, collects District revenue and maintains an account receivable record for each of the District's customers. This function also assists District customers with user charge billing and collection questions, and enforces user charge ordinances. Through the efforts of the Finance Department, the District has received the Distinguished Budget Presentation Award from the Government Finance Officer Association ("GFOA") for its comprehensive annual budgets for the past 24 consecutive years and a Certificate of Achievement for Excellence in Financial Reporting for its Comprehensive Annual Financial Reports for the past 23 consecutive years.

Information Systems

The Director of Information Services is responsible for all computer related services and applications required by the District. The department is organized by the following three functions: (1) Business Integration; (2) Application Services and (3) Technical Services.

The primary function of the Business Integration function is to ensure that business and stakeholder needs are satisfied through enhancements to the District's business application systems. This includes working with the business departments to review and improve business processes to better support stakeholders. The Application Services function provides technical support to all District users and maintains the District's business application systems. This group develops new systems and also provides ongoing support for change to existing systems. The Technical Services function is responsible for managing the District's information technology infrastructure, including servers, enterprise storage, desktop services, peripheral devices and telecommunications equipment. The Technical Services group manages and supports both the Local Area Network ("LAN") and the Wide Area Network

The Mission of the Information Systems Department is to lead the District in the implementation of business processes and information technology that will assist the District in providing the highest quality services in the most efficient and cost effective manner possible. The priority is placed on making it easier for residents, businesses and community agencies to "do business" with the District through improved business processes and the effective use of information technology.

(“WAN”) and serves as the focal point for the evaluation, procurement, and installation of new technologies. The Information Systems Department in partnership with the business departments has just recently implemented an enterprise initiative that replaced legacy business processes and applications with an enterprise resource planning (“ERP”) system. This new enterprise system provides an integrated view of corporate data enabling the District to be more efficient in its operation.

Engineering

The Director of Engineering is responsible for the design, planning, and management of all of the District’s wastewater and stormwater capital improvement projects. This department is also responsible for all environmental compliance activities. The Director of Engineering is assisted by four Assistant Directors of Engineering that are each directly responsible for one of the following four functions: (1) Design; (2) Planning; (3) Construction Management; and (4) Environmental Compliance.

The Mission of the Engineering Department is to responsibly deliver stormwater and wastewater facilities to protect the water environment.

The Design function consists of three groups that provide for preparation of construction bid documents and property rights acquisition for sanitary sewer, storm, and combined sewer projects to execute the District’s capital and infrastructure repair program and includes work performed in-house as well as by contracted consultant resources. Long and short-term planning for all sewer projects within the District is provided by the Planning function. This function evaluates, prioritizes and selects projects to be included in the CIRP and is responsible for infiltration/inflow investigations, mapping activities, regulatory coordination concerning overflow issues, evaluation of sewer system hydraulic models and management of engineering documents. This function also provides plan review and permitting of all private development involving sewers and drainage systems located within the District. Management, coordination and monitoring of the construction of all capital improvement projects is the responsibility of the Construction Management function. This includes project reviews, budget and schedule compliance monitoring, fee negotiation, contract management, and construction management and inspection. The responsibilities of the Environmental Compliance function include the monitoring of waters and wastewaters, analytical support for compliance programs and treatment plants, investigation of pollution sources, environmental compliance assessments of District facilities and pollution control programs, administration of programs designed to recover the cost of treating high-strength wastes from industrial and hauled waste customers, administration of the District’s Industrial Pretreatment Program, overseeing cleanup of collection system overflows, and implementing stormwater quality best management practices.

Operations

The Director of Operations is responsible for the day to day operation of all wastewater collection and treatment services provided by the District as well as all stormwater removal and pollution abatement services. The Director of Operations is assisted by an Assistant Director of Operations and seven Division Managers. Operations related services are organized into eight basic functions consisting of (1) Mintert Yard; (2) Grand Glaize Yard; (3) Sulfur Yard and Garage/Shops; (4) Lemay Treatment; (5) Bissell Point Treatment; (6) County Treatment; (7) Pump Stations and Technical Services, and (8) Support Services.

The Mission of the Operations Department is to protect the public's health, safety and water environment by effectively operating and maintaining the District's wastewater and stormwater infrastructure.

The three regional maintenance yards are responsible for the sanitary, combined, and storm sewers within their designated service areas. The Garage and Shops Division provides for the maintenance, repair, and upkeep of the District's vehicles, office buildings and grounds. It also operates machine shop, garage, and carpentry facilities. The three regional treatment control centers are responsible for treatment services provided in their respective service areas. The Pump Stations and Technical Services Division is responsible for all wastewater pumping across the District; the automated overflow regulation systems; flood wall pump stations and the flow monitoring group. The Support Services Division is responsible for the proper management of the Department's spare parts inventory out of three warehouse hubs. It also supports all customer calls of a non-billing nature, provides administrative support to all treatment plants and maintenance yards, and tracks and reports on a variety of performance indicators.

The Assistant Director of Operations has direct responsibility for operation of the garage facilities and also manages the Support Services Division. Each of the three regional treatment control centers, the pump station group and each of the three maintenance yards are supervised by one of the seven Division Managers.

Peak Performance Awards

The success of the District's wastewater operations can be measured by its ability to consistently meet the requirements of its National Pollutant Discharge Elimination System ("NPDES") permits. The District has been very successful in meeting its discharge requirements as recognized by the National Association of Clean Water Agencies ("NACWA"). NACWA has a three-tiered recognition system consisting of silver, gold and platinum awards. Silver awards recognize facilities that received no more than five NPDES permit violations over the past calendar year. Gold awards honor treatment plants that have achieved 100 percent compliance with their NPDES permit during an entire calendar year. The platinum award is only presented to treatment plant facilities that have achieved five-

consecutive gold awards, which represent five-consecutive years of no NPDES permit violations. One of the District's largest plants, Bissell Point, won this prestigious award in 2000 for full NPDES compliance during calendar years 1995 through 1999. The table below

Treatment Facility	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Bissell Point	**P**	G	G	S	S		G	S	S	G
Lemay	S	S	S		S	S	S	S	S	S
Coldwater Creek	S	S		S	G	G	S	S	S	S
Missouri River	G	G	S	S	G	G	S	G	G	G
Grand Glaize	G	S		S	S	G	G	S	S	S
Fenton	S	G		S	S	G	S	S	G	G
Meramec Lagoon	S	S	S	G	S	S	S	S	x	x
Baumgartner			S	G	G	S	S	G	x	x
Lower Meramec WWTP (a)								S	G	G

P - Platinum; **G** - Gold; **S** - Silver; **x** - Out of Service
(a) Replaced Meramec and Baumgartner lagoons in 2008.

shows a 10-year history of the peak performance awards presented to the District. As indicated by this table, all of the District's treatment plants earned awards for permit compliance during calendar years 2006 through 2009. Awards for 2010 are expected to be presented in July 2011.

Staffing

Authorized staffing as of July 1, 2011 for the District is summarized in Table 1 by department and compared to prior levels since the first successful issuance of district-wide revenue bonds in fiscal year 2004. These levels include all personnel involved with the day to day operation of the District, including all stormwater operations. Of the 944 budgeted positions, 895 positions or approximately 95 percent are currently filled. About 84 percent of these full time equivalent positions are required for the operation and maintenance of the System with the remaining positions required for stormwater activities. All of the stormwater positions are in the Operations and Engineering departments with support from other departments.

The District employs both union and nonunion employees. About 83 percent of the employees within the Operations Department are eligible to be represented by one of six unions consisting of the American Federation of State, County and Municipal Employees (AFSCME) No. 410; the Bricklayer's Union No. 1; the International Association of Machinists (IAM) District 9; International Brotherhood of Electrical Workers (IBEW) No. 1; the International Union of Operating Engineers (IUOE) No. 513; and the Service Employees International Union (SEIU) No. 2000. About 52 percent of the employees within the

Operations Department or 62 percent of those eligible for union membership are actual union members.

Table 1
Historic Staffing Levels

	2004	2006	2008	2010	Budget 2012
Secretary-Treasurer	6	7	7	7	7
Internal Auditor	4	0	0	0	0
Executive Director	6	5	4	4	4
General Counsel	8	8	7	7	7
Human Resources	24	25	25	25	27
Finance	65	59	66	70	63
Information Systems (a)	22	38	41	42	43
Engineering					
Planning & Design	118	108	125	131	125
Project Management	40	51	57	54	54
All Other (b)	59	52	49	49	50
Total	217	211	231	234	229
Operations					
Collection System (c)	282	282	374	356	326
Pump Stations	45	42	40	61	62
Treatment Plants	173	180	174	175	176
Total	500	504	588	592	564
Total	852	857	969	981	944

(a) Includes computer operations, application development and network operations.

(b) Includes operational support, compliance programs and technical services functions.

(c) Includes Mintert, Sulphur and Grand Glaize maintenance yards; support services; and garage & shops functions.

Since the first series of district-wide revenue bonds was issued, the District has increased staffing from 852 positions in 2004 to 944 positions in 2012, a 10.8 percent increase in a nine year period. Most of this increase was realized by the Operations Department as the District continues to actively address overflow problems in both the combined and sanitary sewer systems. The current authorized staffing level for wastewater operations is expected to remain relatively stable through fiscal year 2016.

Contractors

To supplement and expand its existing staffing resources, the District enlists the aid of private companies and consultants on an as needed basis. Currently, the District has outstanding contracts for such services as billing and collection of user charges, collection of

past due bills, legal, project management, claims management administration, public relations activities, internal auditing, consulting and various other professional services. To assist the District with the CIRP, a number of design and construction firms will be contracted. The District has established specific procedures to be used to retain private firms for such services.

Consultant Procurement Process

To enable the District to quickly and efficiently procure services of qualified engineering, architectural, and survey consultants, the District has established a procurement policy and related procedures. This policy was most recently updated on March 1, 2011. To qualify for the procurement procedure, a consultant must submit an annual Qualification Form and insurance certificate meeting District requirements that must be updated on an annual basis. These forms are used to create a pre-qualification list of consultants to be considered in the selection of firms to provide professional services. Each firm must have a full-time office within the District boundaries with a professional staff capable of producing architectural, surveying or engineering products; at least one professional engineer/architect/surveyor registered in the State of Missouri, and must provide verifiable documentation of experience in their area of expertise to be considered for the pre-qualification list. However, any prior poor performance could result in the District rescinding or denying prequalification of a previously qualified firm.

The procedure used to select firms from the pre-qualification list for a project depends upon the estimated value of the project. For projects in which the total fee is estimated to be less than \$500,000, two similar projects are selected for which proposals from three experienced consultants on the pre-qualified list are solicited. This approach virtually assures a response from all three qualified candidates due to a high probability of success.

For projects that exceed \$500,000, the District sends out requests for qualifications and will consider any pre-qualified consultant that expresses an interest in the project. A short list selection committee of senior Engineering and Operations staff and the Manager of Diversity Programs reviews the qualifications of each interested firm and prepares a short list of at least three consultants. These firms are then asked to submit a proposal which is evaluated by a selection committee composed of at least five senior Engineering and Operations staff that does not include any members from the short list selection committee unless it is deemed necessary by the Executive Director. A point system is used to select a consultant, usually the one with the highest number of first place selections, and the winning consultant is then asked to submit a fee proposal. Contracts are negotiated to reasonably assure the best and fairest rates are obtained by the District for the services required. If a reasonable contract can not be negotiated, the District repeats the process with the next

highest rated consultant. If no contract can be negotiated, the procurement process will be repeated with all new consultants. For unusual or unique projects, negotiations with qualified consultants, who do not have offices in St. Louis, may be undertaken after written justification by the Director of Engineering and approval by the Executive Director.

In either of these two cases, a performance evaluation of the quality of professional services completed and ability to meet project schedules and budget is prepared by District staff. This evaluation is discussed with the consultant and filed for use in a future selection process.

Strategic Business Plan

Section 5.110 of the Charter requires the District to adopt a continuing five-year Strategic Business and Operating Plan or strategic business plan on an annual basis. The Strategic Business and Operating Plan must “state the District’s objectives for the succeeding five years and include objective targets by which to measure the District’s performance in meeting these objectives.” The objectives are achieved by various strategies consistent with overall goals established by the District.

The first strategic business plan was completed in June 2001 and was based on priority initiatives recommended by an Advisory Committee composed of 50 individuals and groups from throughout the St. Louis community. The five initial goals lend support to the District’s capital improvement planning and financing plan and provide the foundation for the District to update and revise the Strategic Business and Operating Plan on an annual basis. The goals established in 2001 are listed below.

- Goal 1.** To deliver effective and dependable wastewater and stormwater services to the citizens of the District.
- Goal 2.** To earn the community’s trust, understanding, and support.
- Goal 3.** To utilize the District’s resources appropriately and efficiently.
- Goal 4.** To create a sustainable and effective organizational environment that is open, effective, and supportive of all employees and volunteers.
- Goal 5.** To make the protection, beautification, and enhancement of the region’s water environment among the community’s highest priorities.

The updated Strategic Business and Operating Plan provides a broad look at where the District needs to focus its attention and resources over the next five years (fiscal years 2012 through 2016). It identifies four near-term goals compatible with the original goals and develops six business-focused strategies to achieve those goals. A set of specific objectives that support the six strategies required to achieve the goals of the Strategic Business and

Operating Plan are delineated in the plan and segmented into applicable time frames for their completion. The near term goals for the current fiscal year 2012 Strategic Business and Operating Plan are as follows:

- Goal 1.** Deliver consistent, high quality customer service;
- Goal 2.** Comply with all legal and regulatory requirements and schedules;
- Goal 3.** Minimize customer rate increases; and
- Goal 4.** Be accountable to the St. Louis Community

To achieve these goals, the fiscal year 2012 Strategic Business and Operating Plan proposes the following six business-focused strategies:

- Strategy 1.** Educate and partner with stakeholders to build community support.
- Strategy 2.** Manage the District's costs and revenues to optimize financial impacts.
- Strategy 3.** Integrate and improve the District's business processes.
- Strategy 4.** Promote appropriate regulatory standards through proactive government involvement.
- Strategy 5.** Address customer service levels and needs, and regulatory requirements through a comprehensive asset management program.
- Strategy 6.** Create a learning- and business-oriented culture based on competency and accountability.

The annual Strategic Business and Operating Plan is a critical and invaluable document that provides the framework, the direction and the plan for success that the District's various stakeholders require and expect.

Wastewater System Financing

The general objectives of the District's wastewater Capital Improvement and Replacement Program ("CIRP") are to provide the facilities necessary to meet federal and state requirements, maintain the integrity of the system, and provide satisfactory levels of service and performance to customers. To accomplish these objectives, the District must have sufficient operating revenues and adequate funding for CIRP projects.

The proceeds of the Series 2011A Bonds are to be used along with wastewater service charge revenues, grants, other revenues and available fund balances to meet the costs of the an ongoing \$6.0 billion, 20-year CIRP that was initiated in fiscal year 2002.

Program Planning

The District is responsible for operating and maintaining an extensive system of sanitary, combined and stormwater sewers. The age of the sewers maintained by the District range from 150 years old to less than one year old. Over 311 miles of sewers predate 1890 and another 524 miles of sewers are more than 80 years old. The District operates and maintains 9,649 miles of sewers consisting of 4,741 miles of sanitary sewers, 1,928 miles of combined sewers, and 2,980 miles of stormwater sewers and improved channels. It also operates and maintains over 280 pumping stations and utilizes seven treatment facilities treating more than 330 million gallons of wastewater every day. This extensive collection, drainage, and treatment system required a comprehensive plan to prioritize and address the wastewater infrastructure needs that are present in the City and the County.

With the possibility of over 2,300 CIRP projects to be constructed, the District embarked on a major program planning process to verify, evaluate and establish the priority of these capital projects. Due to the magnitude of the undertaking and relatively short time frame to complete the study, the District elected to utilize the services of consultants versed in facility planning and knowledgeable of regulatory requirements. A joint venture team was selected by the District in March 2001 to provide the required program planning services. The intensive planning effort was initiated in July 2001 and completed in September 2002.

The District and joint venture consultants first developed a Program Planning Strategic Plan ("Strategic Plan") to identify high-level goals and issues that help define the District's CIRP. The Strategic Plan set forth these issues to accomplish the following objectives:

- Keep critical issues and considerations in the forefront as the CIRP was developed.
- Facilitate tracking and discussion of these issues so the CIRP is responsive to them.

- Facilitate senior level (Board and senior staff) review and input on issues affecting the CIRP.

The Strategic Plan is intended to be a “living document” that will periodically be updated by the District’s senior management and refined as the program planning continues and as issues that impact the program evolve.

Capital Improvement and Replacement Program

The District reviews and modifies its wastewater system CIRP on an ongoing basis. Detailed wastewater system analyses are periodically conducted to identify and prioritize needed capital improvements. The most recent detailed CIRP plan was completed in September 2002 by the District and the joint venture team of Sverdrup, Kwame, and Metcalf & Eddy. This plan is being followed by the District with annual modifications as required to reflect current needs and priorities.

In June of 2007, a lawsuit was filed by the Environmental Protection Agency (“EPA”) and the State of Missouri accusing the District of violating state and federal clean water statutes. The lawsuit alleges the District allowed polluted water to be dumped into waterways through “overflows”, sewer pipes that empty into rivers and act as relief valves when heavy rainfall clogs the system. Through court filings, the District has denied all allegations in the federal lawsuit. In the past 15 years, the District has spent approximately \$2.0 billion on improvements to comply with the Clean Water Act. In July 2008, all parties of the lawsuit agreed to try to resolve the case out of court and hired a mediator. In June 2011, the District agreed in principle to sign a Consent Decree agreement with the EPA and the Coalition for the Environment, which intervened in the lawsuit, that commits it to spending \$4.7 billion over a 23 year period. The State of Missouri has not agreed to sign the Consent Decree in its present form. Major components of the Consent Decree are presented in the following text box.

Table 2 presents a summary of the projected CIRP for fiscal years 2011 through 2016. These costs were obtained from the District’s supplemental budget documents and other data provided by District staff. The costs for projects benefiting special assessment districts are not included in Table 2 since they are fully funded by subdistrict tax revenues and thus do not impact the magnitude of the proposed bonds or required revenue increases. All costs shown in Table 2 include an inflation allowance of three percent per year.

The proposed CIRP is primarily focused on collection system improvements projects that include an estimated \$641.6 million to eliminate sanitary sewer overflows and \$211.6 to reduce or eliminate combined sewer overflows. About \$271.7 million is earmarked for system improvements throughout the District that includes asset management and collection

Major Federal Consent Decree Components:

1. **Schedule and Estimated Cost** - The Consent Decree will have an implementation schedule of 23 years after the CSO Long Term Control Plan is approved by the State of Missouri. The District estimates the cost to comply with the Consent Decree to be \$4.7 billion in 2011 dollars.
2. **Early Elimination Projects** - Requires the completion of sanitary sewer projects that will eliminate 50 specific constructed SSO Outfalls by December 31, 2012.
3. **SSO Master Plan** – Requires the submission of an SSO Master Plan that includes an extensive sewer system evaluation survey, hydraulic modeling, and capacity analysis of the sanitary sewer system. The SSO Master Plan will identify remedial measures and projects aimed at eliminating all constructed SSO Outfalls, known SSOs, treatment plant bypassing within the sanitary sewer system, and reducing building backups. This plan must be submitted by the District no later than December 31, 2013.
4. **Remedial Measures** – Requires the completion of the remedial measures and elimination projects identified in the SSO Master Plan in accordance with the schedule provided therein, which includes the removal of 85 percent of the constructed SSO Outfalls, and a goal of eliminating all other known SSOs by no later than December 31, 2023, and all remaining constructed SSO Outfalls by December 31, 2033.
5. **CMOM Program** – Requires the District continue its development and implementation of a Capacity, Management, Operations, and Maintenance (CMOM) program that includes detailed performance goals for the prioritization, cleaning, inspection, and rehabilitation of the entire sewer system. This program also includes continued implementation of the District’s Fats, Oils, and Grease (FOG) program, the development and implementation of a Private Inflow and Infiltration Reduction Program, Building Backup Response Plan, and a Non-Capacity Related SSO Response Plan.
6. **Cityshed Mitigation Program** – Requires the commitment of a regular annual program to mitigate the effects of wet weather surcharging and overland flooding of the combined sewer system, with an anticipated expenditure of \$230 million over the life of the Consent Decree.
7. **CSO Long Term Control Plan (LTCP)** – Requires the construction and implementation of CSO control measures in accordance with the requirements and schedule set forth in the approved LTCP and Consent Decree. The projects in the LTCP will be completed 23 years after the LTCP is approved by the State of Missouri.
8. **CSO Post Construction Monitoring Program** – Requires the implementation of a Post Construction Monitoring Program to validate performance of completed CSO control measures as set forth in the approved LTCP and Consent Decree.
9. **CSO Green Infrastructure Program** – Includes the commitment of \$100 million to implement a Green Infrastructure Program. This will include a five-year pilot program aimed at using green infrastructure to reduce stormwater and resulting CSO volumes.
10. **Consent Decree Reporting** – Requires significant and continuous detailed reporting and transparency on all activities identified above, as well as reporting progress in achieving the overall goals of the Consent Decree to eliminate and reduce sewer system overflows. The annual reports will be made available on the District’s website.
11. **Supplemental Environmental Project (SEP)** – To offset civil penalties, the District will spend \$1.6 million dollars for a SEP program that will implement a sewer connection and septic tank closure program for low-income residents. This program must be completed within five years of the effective date of the Consent Decree.
12. **Civil Penalty** – Within 30 days of the effective date of the Consent Decree, the District will pay the United States \$1,200,000 as a civil penalty. This penalty is consistent with public entities of similar size that have begun the process of addressing overflow issues.
13. **Stipulated Penalties** – The District will be subject to stipulated penalties if it fails to meet certain specified requirements outlined in the Consent Decree.
14. **Coalition for the Environment** – In settlement of the Coalition’s claim for costs of litigation, including attorneys’ fees, the District will pay \$116,050 to be used to fund projects as determined by joint agreement between the District and the Coalition. The Consent Decree also requires the District to provide a copy of various documents and reports to the Coalition.

Source: Fact Sheet for Agenda Item No. 44 for June 9, 2011 Board meeting.

Table 2
Capital Improvement and Replacement Program

Line No.	Description	Fiscal Year Ending June 30,						Total
		2011	2012	2013	2014	2015	2016	
		\$	\$	\$	\$	\$	\$	\$
	Sanitary Sewer Overflow Control							
1	Design	12,410,000	728,000	54,224,000	71,025,000	51,240,000	11,636,000	201,263,000
2	Construction	54,931,000	18,093,000	69,963,000	40,856,000	108,201,000	148,245,000	440,289,000
3	Subtotal	67,341,000	18,821,000	124,187,000	111,881,000	159,441,000	159,881,000	641,552,000
	Combined Sewer Overflow Control							
4	Design	13,415,000	5,284,000	24,860,000	11,298,000	12,993,000	22,941,000	90,791,000
5	Construction	0	2,206,000	8,971,000	47,094,000	54,708,000	7,865,000	120,844,000
6	Subtotal	13,415,000	7,490,000	33,831,000	58,392,000	67,701,000	30,806,000	211,635,000
	System projects							
7	Cityshed Improvements	6,283,000	0	20,536,000	11,818,000	7,303,000	7,761,000	53,701,000
8	Asset Management	15,697,000	23,234,000	59,029,000	50,667,000	25,446,000	35,565,000	209,638,000
9	Billing & Collection System	0	0	3,934,000	4,389,000	0	0	8,323,000
10	Subtotal	21,980,000	23,234,000	83,499,000	66,874,000	32,749,000	43,326,000	271,662,000
11	Wastewater Treatment	55,487,000	81,558,000	32,290,000	281,000	1,739,000	0	171,355,000
12	Total	158,223,000	131,103,000	273,807,000	237,428,000	261,630,000	234,013,000	1,296,204,000

system improvements. Improvements related to existing treatment plants are expected to cost about \$171.4 million during the five-year study period.

Bond Financed Projects

At special elections held on February 3, 2004 and August 5, 2008, District voters approved the issuance of \$500 million and \$275 million, respectively, of wastewater system revenue bonds. To provide assurances to its ratepayers that the revenue bonds authorized by the two elections would be properly expended on the most essential projects, such as those designed to bring the community into compliance with federal and state clean water laws and regulations, the Board adopted Resolution 2533 for the initial authorization and Resolutions 2808 and 2889 for the second authorization. These resolutions established a list of priority projects that would be financed by each revenue bond authorization. The resolutions also required quarterly progress reports and an independent audit of the projects by an outside accounting firm to be made available to the public.

A summary of the 2004 and 2008 authorizations used to date is presented in the table below. Projects financed by the 2004 Authorization included improvements to the collection system to reduce or eliminate combined sewer overflows (“CSO”), sanitary sewer overflows (“SSO”) and basement backup problems as well as several improvements to the District’s wastewater treatment plants. The bond financed treatment plant improvements included \$177 million applied toward the estimated \$239 million total cost of constructing the new Lower Meramec River Wastewater Treatment Plant, \$61 million to expand and improve the Coldwater Treatment Plant, \$52 million to rehabilitate and improve the Missouri River Treatment Plant, \$35 million to expand and improve the Grand Glaize Wastewater Treatment Plant, and \$64 million for other treatment costs such as wet weather expansion of the Lemay Plant and increasing capacity at the

Use of Bond Authorizations	
Project Category	Amount
	\$millions
2004 Bond Authorization	
Lower Meramec Treatment Plant	177
Coldwater Creek Treatment Plant Improvements	61
Missouri River Plant Rehab & Improvements	52
Grand Glaize Plant Improvements	35
Other Treatment Plant Projects	24
CSO/SSO Collection System Improvements	80
Cityshed Capacity	7
Contingencies and Costs of Issuance	3
Bond Reserve for Series 2004A Bonds	21
Lemay WWTP Improvements	40
Total 2004 Authorization Utilized	500
2008 Bond Authorization	
Lemay WWTP Improvements	62
Missouri River WWTP Improvements	50
Bissell Point WWTP Improvements	7
CSO/SSO Collection System Improvements	57
Cityshed Capacity	7
Total 2008 Authorization Utilized	183

WWTP - Wastewater Treatment Plant

CSO/SSO - Combined Sewer Overflow/Sanitary Sewer Overflow

Fenton Plant.

Projects financed by the 2008 authorization also include improvements to the collection system to reduce or eliminate CSO and SSO overflows and basement backup problems as well as additional wastewater treatment plant improvements. Treatment plant improvements financed by the 2008 authorization include \$62 million for aeration blower modifications, incinerator improvements and wet weather expansion at the Lemay plant and \$50 million for secondary treatment expansion and additional disinfection facilities at the Missouri River Treatment Plant.

Projects to be financed by the Series 2011A Bonds include additional improvements to the collection system to reduce or eliminate basement backup problems and potential sewer overflows. The Series 2011A Bonds will also help finance additional disinfection facilities at the Bissell Point, Lemay and Coldwater wastewater treatment plants.

CIRP Financing

Table 3 presents the proposed capital improvement financing plan and summarizes the projected source and application of funds over the six-year study period. This plan anticipates that proposed capital improvements will be financed from a combination of available funds on hand, bond proceeds, annual operating revenues, and interest income.

A fiscal year 2011 beginning year balance of \$92,977,300 in unencumbered capital funds is indicated to be available to assist in the financing plan as shown on Line 1 of Table 3. Revenue bond issues in the amounts of \$52,020,000 in 2012 \$250,000,000 in 2013, \$215,000,000 in 2014, \$200,000,000 in 2015 and \$140,000,000 in 2016 for a total of \$857,020,000 are shown on Line 2 of Table 3. State revolving loan proceeds in the amounts of \$37,000,000 in 2011, \$39,999,300 in 2012, and \$35,000,000 in 2013 through 2016 for a total of \$216,999,300 are projected and shown on Line 3 of Table 3. The revenue bonds and state revolving loan proceeds together total \$1,074,019,300 and are expected to finance about 77.1 percent of the total six-year major capital improvement program costs (Line 8 of Table 3) net of issuance costs and funding of applicable bond reserve requirements. The amount of each debt issue is developed considering capital program needs, current policies, other sources of capital improvement program financing, and debt service coverage requirements related to the issuance of district-wide revenue bonds.

Cash financing of capital improvements from annual revenues is expected to total \$233,590,000 for the study period as indicated on Line 4 of Table 3. Included in this amount are the revenues derived from the district-wide connection fees that are used to finance the Improvement Fund projects shown on Line 9 of Table 3. The unencumbered beginning of fiscal year 2011 fund balance is expected to be reduced by \$56,236,200 during the six-year

Table 3
Capital Improvement Program Financing

Line No	Description	Fiscal Year Ending June 30,						Total
		2011	2012	2013	2014	2015	2016	
		\$	\$	\$	\$	\$	\$	\$
Source of Funds								
1	Beginning of Year Balance	92,977,300	8,668,600	2,643,500	27,001,100	55,773,300	51,343,100	92,977,300
2	Revenue Bond Proceeds	0	52,020,000	250,000,000	215,000,000	200,000,000	140,000,000	857,020,000
3	State Revolving Loan Proceeds	37,000,000	39,999,300	35,000,000	35,000,000	35,000,000	35,000,000	216,999,300
4	Cash Financing of Construction	37,250,000	37,038,000	31,877,000	33,317,000	38,258,000	55,850,000	233,590,000
5	Grants & Contributions (a)	454,800	474,500	1,494,900	516,300	538,600	561,900	4,041,000
6	Interest Income (b)	2,768,900	2,113,700	2,721,500	2,397,600	2,191,800	1,819,400	14,012,900
7	Total Funds Available	170,451,000	140,314,100	323,736,900	313,232,000	331,761,700	284,574,400	1,418,640,500
Application of Funds								
8	Major Capital Improvements	158,223,000	131,103,000	273,807,000	237,428,000	261,630,000	234,013,000	1,296,204,000
9	Improvement Fund Projects	1,265,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	11,265,000
10	Issuance Costs (c)	552,200	988,300	3,727,500	3,237,500	3,027,500	2,187,500	13,720,500
11	Revenue Bond Reserve Fund (d)	1,742,200	3,579,300	17,201,300	14,793,200	13,761,100	9,632,800	60,709,900
12	Total Application of Funds	161,782,400	137,670,600	296,735,800	257,458,700	280,418,600	247,833,300	1,381,899,400
13	End of Year Fund Balance	8,668,600	2,643,500	27,001,100	55,773,300	51,343,100	36,741,100	36,741,100

(a) Includes anticipated contributions from the City of Arnold to reserve capacity in the Lower Meramec River Wastewater Treatment Plant.

(b) Interest Income is estimated at 1% of the average of the beginning and end of year balances.

(c) Issuance Costs are estimated at 1.40% of the issue amount for Revenue Bonds, 0.65% of the issue amount for SRF Loans, and \$25,000 per issue for commercial paper.

(d) The required balance in the Revenue Bond Reserve Fund is determined to be the maximum principal and interest payment on senior debt.

study period. Pay-as-you-go cash financing and drawdown of available fund balances net of funds used for Improvement Fund projects is expected to provide about 21.5 percent of major capital improvement costs over the six-year study period.

The District anticipates receiving contributions from the City of Arnold for a share of capacity in the Lower Meramec River Wastewater Treatment Plant. District staff estimates that this revenue will average about \$506,800 per year for each year of the study period. These amounts together with a one million dollar grant are shown on Line 5 of Table 3. Interest income earned on invested capital improvement funds is also available to meet capital improvement expenditures. Interest earnings recognize an assumed 1.0 percent average annual interest rate on funds maintained in the construction account. Line 6 indicates the estimated interest income earned on capital improvement program balances and Line 7 shows the total of all funds available to finance the capital improvement program. Total revenues obtained by grants, contributions and interest income will provide the remaining 1.4 percent of major capital improvement costs for the six-year study period.

The application of funds shows that about \$1,296,204,000 in total major capital improvement expenditures is projected over the planning period, as previously summarized in Table 2. All of these projects are identified and tracked in the Sanitary Replacement Fund. In addition, about \$11,265,000 of Improvement Fund projects will be constructed during the study period, as shown on Line 9 of Table 3. Line 10 of Table 3 shows the debt issuance costs associated with projected revenue bond issues. These costs are estimated to be 1.4 percent of the total principal amount for Senior Bonds (as defined in the Bond Ordinance) and 0.65 percent of total principal amount for SRF Bonds (as defined in the Bond Ordinance). Line 11 of Table 3 indicates the amount of revenue bond reserve payments required by the bond covenants to maintain a reserve fund equal to the least of (a) ten percent of the stated principal amount of the Senior Bonds, (b) the maximum principal and interest payment of all outstanding Senior Bonds, or (c) 125 percent of the average annual principal and interest requirement on the Senior Bonds. Interest earned on this reserve is credited to the Payment Account since the bond reserve is used as a source of security for debt service payments and may be used to make the last annual debt payment of each revenue bond issue. Although a cash funded debt service reserve is provided for in this analysis, it is not intended to preclude the option of satisfying a debt reserve requirement through the purchase of a surety bond or other credit facility, should the District find this to be a more attractive alternative.

Wastewater Service Charges

Table 4 presents a summary of the district-wide charges imposed by the District since the beginning of fiscal year 2004. Rates adopted by the Board for fiscal years 2004, 2005 and 2006 were the first rates reviewed and recommended by the Rate Commission. Rates for fiscal year 2008 and three subsequent years were based on a pay-as-you-go financing plan and were recommended to the Board by the Rate Commission on August 13, 2007 as a result of the 2007 proceedings. Subsequent to the Board's acceptance of the projected rate increases, concerns over their cumulative impact on residential bills arose from customer advocacy groups who did not participate in the 2007 Rate Commission proceedings. To respond to these concerns, a proposed Rate Change was submitted to the Rate Commission in January 2008 that advocated the use of \$275 million in additional wastewater revenue bonds to lower wastewater rates from those that were previously recommended by the Rate Commission and introduced by the Board on October 11, 2007. As a result of the 2008 rate proceedings, the Rate Commission recommended and the Board accepted the lower wastewater rates proposed for fiscal years 2010, 2011, and 2012 with no increase in fiscal year 2009 contingent upon voter approval of the \$275 million of additional revenue bond authorization. Since the additional bond authorization was approved by the District's voters, the revised wastewater rates for fiscal years 2010 and 2011 have been implemented. The rates approved for fiscal year 2012 will become effective on July 1, 2011 and are expected to increase user charge revenues by 4.3 percent.

General Service Charges

The current wastewater rates were adopted on January 14, 2010 and became effective on July 1, 2010. These rates are part of the third set of rates to go through the Rate Commission review procedures mandated by the Charter.

The rates consist of a monthly base charge, a uniform volume charge, and extra strength surcharges for biochemical oxygen demand ("BOD") in excess of 300 milligrams per liter ("mg/l") or chemical oxygen demand ("COD") in excess of 600 mg/l, and suspended solids ("SS") in excess of 300 mg/l. The base charge includes a billing and collection charge component and system availability charge component that are applicable to all customer classes. A compliance charge is applied to non-residential customers, in addition to the base charge, to recover monitoring and pretreatment program related costs.

Table 4
Historical District-Wide User Charges

Line No.	Type of Monthly Charge	Fiscal Year Ending June 30,					
		2004	2005	2006	2008	2010	2011
	Ordinance	11553	11692	12019	12561	12754	(b) 13021
	Adopted Date	07/24/03	03/11/04	07/14/05	12/13/07	10/07/08	01/14/10
	Effective Date	08/01/03	07/01/04	07/01/05	01/01/08	07/01/09	07/01/10
	Base Charge - \$/Bill						
1	Billing & Collection Charge	0.85	0.85	0.85	2.30	2.30	2.60
2	System Availability Charge	<u>5.30</u>	<u>6.45</u>	<u>7.05</u>	<u>8.40</u>	<u>8.60</u>	<u>8.80</u>
3	Total Base (Residential) Service Charge	6.15	7.30	7.90	10.70	10.90	11.40
4	Compliance Charge - \$/Bill (a)	<u>11.80</u>	<u>12.15</u>	<u>12.55</u>	<u>27.40</u>	<u>29.65</u>	<u>30.85</u>
5	Total Nonresidential Service Charge	17.95	19.45	20.45	38.10	40.55	42.25
	Volume Charge						
6	Metered - \$/Ccf	1.34	1.66	1.81	1.88	1.92	2.02
	Unmetered - \$/Bill						
7	Each Room	0.88	1.08	1.18	1.23	1.25	1.32
8	Each Water Closet	3.28	4.04	4.42	4.59	4.69	4.93
9	Each Bath	2.74	3.37	3.69	3.83	3.91	4.11
10	Each Separate Shower	2.74	3.37	3.69	3.83	3.91	4.11
	Extra Strength Surcharges - \$/ton (b)						
11	Suspended Solids over 300 mg/l	162.88	200.15	218.90	218.90	218.90	222.62
12	Biochemical Oxygen Demand over 300 mg/l	319.24	412.58	461.44	529.56	551.52	596.72
13	Chemical Oxygen Demand over 600 mg/l	159.62	206.29	230.72	264.78	275.76	298.36

Ccf - Hundred Cubic Feet

mg/l - milligram per liter

(a) Applicable only to non-residential customers.

(b) Current rates as recommended by the Rate Commission and adopted by the Board of Trustees. These rates were previously adopted by Ordinance 12754 and reaffirmed by Ordinances 12905 and 13021.

Low Income Charges

The first low-income rates were adopted by the Board in 1993 by Ordinance 9031, which was promulgated at the same time as the general service wastewater charges enacted by Ordinance 9029. Current District policy defines low income credit eligibility as residential customers with household income (for the previous calendar year) less than 150 percent of the most recent Health and Human Services (“HHS”) poverty guidelines by household size and less than 175 percent for disabled individuals and seniors at least age 62. The District recently expanded the eligibility criteria to include multifamily residential customers residing in multifamily housing consisting of six units or less. The Water Quality Act of 1987 (Public Law 100-4) allows such consideration for low-income customers and states that:

“A system of user charges which imposes a lower charge for low-income residential users (as defined by the Administrator) shall be deemed to be a user charge system meeting the requirements of clause (A) of this paragraph if the Administrator determines that such system was adopted after public notice and hearing.”

Wastewater charges applicable to eligible low-income residential customers are set equal to 50 percent of those presented in Table 4 by District policy. The cost impact on a typical single family residential customer not eligible for low-income assistance and discharging 8 hundred cubic feet (“Ccf”) per month of wastewater is expected to be less than \$0.05 per month in fiscal year 2013. This cost is expected to increase in subsequent years as the District more actively promotes this program and the number of qualified low-income customers increases.

Other Charges and Fees

In addition to the normal and excess strength wastewater service charges, the District also imposes a number of other charges to meet cost related to growth and system operations. The District imposes District-wide sewer system connection fees per Ordinance 9346 adopted in 1994. Under this system of capital recovery charges, new customers buy into the wastewater system so that they are on an equal equity basis with customers having similar service requirements. The current charge is based on a unit equity value of \$2.96 per gallon of wastewater per day attributed to each new customer. For all single family customers, the sewer system connection fee is \$1,072. For non-residential customers, the charge varies from \$1,072 for customers served by a 5/8 or 3/4-inch water meter to \$82,655 for customers served by a 10-inch water meter. Multifamily customers have the option to be billed on a flat \$713 per unit basis or on the standard meter size basis.

A \$0.08 per gallon charge for septage or other wastewater hauled to the Bissell Wastewater Treatment Plant is imposed on all permitted waste haulers that serve customers having septic tanks, cesspools, private treatment facilities, or customers otherwise not connected to the District's sewer system per Ordinance 12716, adopted on August 14, 2008. Costs incurred for sampling and testing wastewater samples from industrial users are recovered by a system of wastewater monitoring fees. These fees are typically published in ordinances updating the wastewater service charges. A number of engineering and service fees are also applied to reimburse the District for various services such as plan review, construction permits, construction related inspections, machine taps, project bid fees, provision of blueprint and microfilm copies, and permitting pretreatment customers.

Rate Setting Process

Historically, wastewater rates have been based on cost of service principles and then presented to the Board for their consideration and final approval. This general rate setting process was significantly changed upon passage of the amendments to the Plan in November 2000, which required the formation of a Rate Commission and a much more detailed rate setting procedure based on five governing criteria. Wastewater rates are still determined based on cost of service principles recognized throughout the industry but now the District is required to submit a written rate change notice to the Board and Rate Commission to initiate a 120 to 165 day rate review process.

The District must also submit direct testimony of all District witnesses and other rate setting documents within three business days after submission of the rate change notice. These documents will typically present the District's case concerning how the proposed rate change meets the five governing criteria specified by Section 7.270 of the Charter. Specifically, the documents must present sufficient information to allow the Rate Commission to determine if the rate change and all portions thereof:

- (1) is consistent with constitutional, statutory or common law as amended from time to time;
- (2) enhances the District's ability to provide adequate sewer and drainage systems and facilities, or related services;
- (3) is consistent with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District;
- (4) does not impair the ability of the District to comply with applicable Federal or State laws or regulations as amended from time to time; and
- (5) imposes a fair and reasonable burden on all classes of ratepayers.

Per Section 7.300(b) of the Charter, the Board is required to accept the Rate Commission report unless it finds that the report or any part thereof, violates any of the five

governing criteria. If the Board fails to accept or reject the Rate Commission report or any part thereof after consideration at two Board meetings, the Rate Commission report is deemed to be accepted by the Board. Once the report is accepted or deemed to be accepted, the Board must enact an ordinance consistent with the Rate Commission report. If the Rate Commission report is rejected by the Board, the Board must submit a written report to the Rate Commission explaining the reasons why the Rate Commission report was rejected. Rejection of the Rate Commission report does not prevent the Board from enacting an ordinance establishing different rates or taxes.

Although the current rate setting process extends the time required to obtain rate adjustments, the involvement of local organizations and the opportunity for interveners and other ratepayers to participate in the process, provides assurances to the public that the proposed rates are needed and have been thoroughly reviewed by an independent Rate Commission. The process can also provide a deeper understanding and appreciation of the detailed rate design process by all participants of the rate review proceedings. Such understanding can avoid potential future rate related misunderstandings between interested parties and the District.

A new wastewater rate change proposal was submitted to the Rate Commission on May 10, 2011. Under this proposal, wastewater bills for typical residential customers are projected to increase by about 13 percent per year in fiscal years 2013 through 2016. A transition from the current environmental compliance charge to a five-tier system of charges is also proposed to more equitably recover costs from non-residential customers.

Revenues

District revenue is derived primarily from charges for wastewater service, including revenues from extra strength surcharges. Other sources of income include, dedicated subdistrict assessments, connection fees, waste hauler permits, industrial monitoring charges, various engineering fees, interest earnings, late charges and other operating income.

Customer Growth

Table 5 presents a summary of the historical and projected average number of wastewater customers served by the District. All customer projections are based on an analysis of historic growth patterns by customer class during the past five years. As indicated by Table 5, the number of metered customers is projected to decrease from 348,200 in 2011 to 347,600 in 2016 and the number of unmetered customers is projected to decrease from 77,400 in 2011 to 75,600 in 2016. The total number of customer accounts is expected to decrease at an average rate of 0.1 percent per year throughout the six-year study period.

**Table 5
Historical and Projected Customer Accounts**

Line No.	Customer Class	Historical					Projected					
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Metered Customers												
1	Single Family	301,122	302,582	302,694	302,843	303,096	302,300	302,100	302,100	302,100	302,100	302,100
2	Multifamily	20,825	20,816	20,824	20,862	20,787	20,800	20,700	20,700	20,700	20,700	20,800
3	Non-Residential	25,712	25,620	25,583	25,387	25,165	25,100	24,900	24,800	24,800	24,700	24,700
4	Total	347,659	349,018	349,102	349,092	349,048	348,200	347,700	347,600	347,600	347,500	347,600
Unmetered Customers												
5	Single Family	60,010	59,977	59,733	58,757	58,034	57,400	56,800	56,400	56,200	56,200	56,200
6	Multifamily	23,757	23,818	23,780	20,437	19,938	20,000	19,700	19,500	19,400	19,400	19,400
7	Total	83,767	83,795	83,513	79,194	77,972	77,400	76,500	75,900	75,600	75,600	75,600
Total Customer Accounts												
8	Single Family	361,132	362,559	362,427	361,601	361,130	359,700	358,900	358,500	358,300	358,300	358,300
9	Multifamily	44,582	44,634	44,605	41,299	40,725	40,800	40,400	40,200	40,100	40,100	40,200
10	Non-Residential	25,712	25,620	25,583	25,387	25,165	25,100	24,900	24,800	24,800	24,700	24,700
11	Total	431,426	432,813	432,616	428,287	427,020	425,600	424,200	423,500	423,200	423,100	423,200
12	Annual Percentage I	0.4%	0.3%	0.0%	-1.0%	-0.3%	-0.3%	-0.3%	-0.2%	-0.1%	0.0%	0.0%

Wastewater Volumes

Table 6 presents a summary of historical and projected contributed or billed wastewater volumes. Billed wastewater volume is the amount of wastewater flow contributed to the System by residential and non-residential customers. The determination of contributed wastewater volume for unmetered residential customers is based on the same indoor water usage attributes previously used to develop water rates for unmetered water customers in the City. The indicated unit volumes include:

- 16 gallons per day (“gpd”) for each room,
- 60 gpd for each water closet, and
- 50 gpd for each bath or separate shower

Billable wastewater volumes for all single family customers with metered water usage are determined on the basis of water used during the period best equated to contributed wastewater volume. For District customers, this period is from November 1 through April 30. Billed wastewater volume for non-residential customers is equal to actual metered water usage less exemption allowances for any water that does not enter the sewer system. Multifamily customers are either billed based on actual annual water usage or the average annual water usage established during the best equated period for wastewater contribution, depending on the billing method selected by each multifamily customer. The selected billing basis is permanent and cannot be changed. Projected volumes are based on the recognition of historical billing volumes and trends. Also considered are projections of numbers of customers and average historic billed volume per customer.

The District’s largest customer, Anheuser-Busch, was analyzed separately for projection purposes. This large customer has had a significant reduction in contributed wastewater over the past few years due to several successful water conservation and reduction projects. It is projected that annual wastewater flow from Anheuser-Busch will remain at about 1.9 percent of total wastewater volume throughout the study period. Total wastewater volume for metered and unmetered customers is expected to modestly decrease during the six-year period from 69,302,900 Ccf in 2011 to 68,004,000 Ccf in 2016.

Table 6
Historical and Projected Contributed Wastewater Volume

Line No.	Customer Class	Historical					Projected					
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
		Ccf	Ccf	Ccf	Ccf	Ccf	Ccf	Ccf	Ccf	Ccf	Ccf	Ccf
Metered Customers												
1	Single Family	27,437,644	26,166,748	26,229,750	25,672,899	24,884,791	24,820,900	24,646,300	24,458,200	24,457,100	24,458,100	24,460,800
2	Multifamily	9,763,965	9,625,609	9,419,644	9,160,576	8,904,095	8,839,200	8,667,400	8,639,400	8,607,900	8,572,900	8,558,900
3	Non-Residential	31,600,536	30,567,364	30,117,889	26,940,750	25,006,893	23,370,600	23,224,200	23,136,100	23,092,100	23,077,500	23,077,500
5	Total	68,802,145	66,359,721	65,767,283	61,774,225	58,795,779	57,030,700	56,537,900	56,233,700	56,157,100	56,108,500	56,097,200
Unmetered Customers (a)												
6	Single Family	7,068,871	7,112,387	7,105,847	7,076,700	7,215,245	7,442,300	7,291,000	7,234,100	7,213,400	7,215,400	7,218,200
7	Multifamily	5,044,805	5,038,213	5,008,881	4,928,578	4,823,684	4,829,900	4,744,500	4,700,200	4,687,700	4,689,300	4,688,600
8	Total	12,113,676	12,150,600	12,114,727	12,005,278	12,038,928	12,272,200	12,035,500	11,934,300	11,901,100	11,904,700	11,906,800
Total Contributed Wastewater Volume												
9	Single Family	34,506,515	33,279,135	33,335,597	32,749,599	32,100,036	32,263,200	31,937,300	31,692,300	31,670,500	31,673,500	31,679,000
10	Multifamily	14,808,770	14,663,822	14,428,525	14,089,154	13,727,779	13,669,100	13,411,900	13,339,600	13,295,600	13,262,200	13,247,500
11	Non-Residential	31,600,536	30,567,364	30,117,889	26,940,750	25,006,893	23,370,600	23,224,200	23,136,100	23,092,100	23,077,500	23,077,500
12	Total	80,915,821	78,510,321	77,882,010	73,779,503	70,834,707	69,302,900	68,573,400	68,168,000	68,058,200	68,013,200	68,004,000

Ccf = Hundred Cubic Feet (748 gallons)

- (a) Unmetered wastewater volume is determined by multiplying the number of fixtures by their respective unit usage values. Unit usage values are 16 gallons per day (gpd) per room, 60 gpd per water closet, and 50 gpd per bath or separate shower.

Wastewater Revenues Under Existing Rates

Existing wastewater rates for the District, as presented in Table 4, have been in effect since July 1, 2010. The rates currently consist of a monthly service or base charge, a uniform volume charge, and extra strength surcharges for BOD in excess of 300 mg/l or COD in excess of 600 mg/l, and suspended solids in excess of 300 mg/l. The base charge includes a billing and collection charge and system availability charge that are applicable to all customer classes, and an environmental compliance charge that is only applicable to non-residential customers.

A summary of historical revenues for fiscal years 2006 through 2010 and projected wastewater revenues under existing rates for fiscal years 2011 through 2016 is presented in Table 7. Projected billed wastewater revenues do not include allowances for bad debt, refunds or billing adjustments. These billing adjustments are included with other operating revenues in Table 8. Full year revenues from normal and excess strength wastewater billings under present rates, are projected to increase from about \$213,795,600 in 2011 to about \$210,431,800 in 2016.

Other Operating Revenues

Projected other wastewater utility revenue is presented in Table 8. These revenues are grouped in the same manner as summarized in the District's budget documents. All of these revenues are used to offset operating costs.

Wastewater billing adjustments are determined based on current budget estimates and are projected in proportion to the changes in wastewater service revenue shown on Table 7. These adjustments include late charges, refunds and other adjustments. The provision for bad debt is projected to be temporarily offset in 2012 and 2013 due to the expected recovery of prior years' bad debt expense by greater use of contracted collection agencies, law firms and computer automated payment reminders. However, after these enhanced collection efforts of prior year's bad debt, the annual allowance for bad debt expense is projected to increase from normal levels in proportion to the proposed revenue increases. The balance of the wastewater billing adjustment revenue is estimated to remain stable. Revenue from inspection, plan review fees and submittal fees are expected to increase from the 2011 amount based on anticipated inflationary increases. Miscellaneous revenue is projected to increase 0.5 percent per year from the 2011 amount currently budgeted, based on historical trends. Total other operating revenue is therefore projected to decrease from \$(750,500) in 2011 to \$(2,084,700) in 2016 as shown on Line 8 of Table 8 primarily due to the projected bad debt allowances. Revenue derived from connection fees, as shown on Line 9 of Table 8, is projected to increase from \$1,250,000 in 2011 to \$1,450,000 in 2016.

Table 7
Historical and Projected Billed Wastewater Service Revenue
Under Existing Rates

Line No.	Customer Class	Historical					Projected					
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
	Metered Customers											
1	Single Family	77,985,843	76,252,800	82,111,500	87,057,200	86,945,800	91,333,800	90,945,900	90,536,400	90,505,900	90,471,600	90,452,700
2	Multifamily	19,646,971	19,238,700	19,693,800	19,900,500	19,815,100	20,696,500	20,338,100	20,275,800	20,206,700	20,131,400	20,103,700
	Non-Residential											
3	Normal Strength	63,506,777	61,644,900	64,381,700	62,255,400	60,182,084	59,920,000	59,539,800	59,311,100	59,196,900	59,158,900	59,158,900
4	Excess Strength	6,782,384	5,924,400	5,789,800	6,136,700	5,772,600	6,524,900	6,524,900	6,524,900	6,524,900	6,524,900	6,524,900
5	Total	167,921,974	163,060,800	171,976,800	175,349,800	172,715,584	178,475,200	177,348,700	176,648,200	176,434,400	176,286,800	176,240,200
	Unmetered Customers											
6	Single Family	18,282,428	18,485,900	19,745,100	20,808,800	21,152,600	22,804,300	22,403,200	22,215,800	22,133,900	22,112,100	22,101,400
7	Multifamily	11,399,822	11,510,000	11,912,900	11,916,200	11,879,600	12,516,100	12,278,100	12,155,700	12,113,500	12,102,900	12,090,200
8	Total	29,682,249	29,995,900	31,658,000	32,725,000	33,032,200	35,320,400	34,681,300	34,371,500	34,247,400	34,215,000	34,191,600
	Total Wastewater Service Revenue											
9	Single Family	96,268,271	94,738,700	101,856,600	107,866,000	108,098,400	114,138,100	113,349,100	112,752,200	112,639,800	112,583,700	112,554,100
10	Multifamily	31,046,793	30,748,700	31,606,700	31,816,700	31,694,700	33,212,600	32,616,200	32,431,500	32,320,200	32,234,300	32,193,900
11	Non-Residential	70,289,161	67,569,300	70,171,500	68,392,100	65,954,684	66,444,900	66,064,700	65,836,000	65,721,800	65,683,800	65,683,800
12	Total Wastewater	197,604,224	193,056,700	203,634,800	208,074,800	205,747,784	213,795,600	212,030,000	211,019,700	210,681,800	210,501,800	210,431,800

Table 8
Projected Other Wastewater Operating Revenue

Line No.	Description	Projected					
		2011	2012	2013	2014	2015	2016
		\$	\$	\$	\$	\$	\$
1	Billing Adjustment (a)	4,556,700	4,538,700	4,535,500	4,545,600	4,559,000	4,575,100
2	Bad Debt Provision	(10,910,900)	(6,820,800)	(8,998,500)	(10,055,400)	(11,262,000)	(12,613,400)
	Other Fees						
3	Construction Inspection Fees	100,000	103,000	106,100	109,300	112,600	116,000
4	Waste Hauler Permits	1,450,000	1,457,300	1,464,600	1,471,900	1,479,300	1,486,700
5	All Other Fees (b)	482,500	497,100	512,100	527,500	543,300	559,600
6	Subtotal	2,032,500	2,057,400	2,082,800	2,108,700	2,135,200	2,162,300
7	Miscellaneous Revenue (c)	3,571,200	3,607,100	3,651,300	3,696,500	3,743,300	3,791,300
8	Total Other Operating Revenue	(750,500)	3,382,400	1,271,100	295,400	(824,500)	(2,084,700)
9	Connection Fee Revenue (d)	1,250,000	1,288,000	1,327,000	1,367,000	1,408,000	1,450,000
10	Total Other Revenue	499,500	4,670,400	2,598,100	1,662,400	583,500	(634,700)

- (a) Includes Late Charges, Refunds, Adjustments, Wastewater Lien Interest and fees, and Other Adjustments including revenue from Arnold.
- (b) Includes Plan Review Fees, Submittal Fees, Wastewater Monitoring Cost Fees, Pretreatment Discharge Permits, and all other fees.
- (c) Includes Reimbursements, Sale of Fixed Assets, Reimbursable Engineering & Maintenance, and all other miscellaneous revenue.
- (d) Revenue available for improvements financed out of Improvement Fund.

Revenue Requirements

The revenue required to provide for the continued operation of the District must be sufficient to meet the cash requirements for System operation. Revenue requirements include (1) total System operation and maintenance expenses; (2) expenditures for routine and major capital improvements met directly from revenues; (3) total System debt service (consisting of principal and interest payments); and (4) provision for an adequate operating reserve. Projections of the cash requirements to meet these system expenditures for the period of 2011 through 2016 are developed in this section

Operation and Maintenance Expense

Operation and maintenance expense includes the total annual salaries and wages of personnel, costs for materials and supplies, fuel and electrical power costs and other costs such as employee benefits, insurance, and contract services. Since these costs are an ongoing annual obligation of the District, they are met from wastewater and stormwater operating revenues as they are incurred. A summary of projected wastewater related operation and maintenance expense for the period 2011 through 2016 is presented in Table 9. Wastewater related operation and maintenance expense projections for the years 2011 through 2016 are based on budgeted 2011 expense amounts adjusted to recognize allowances for known cost increases, the estimated effects of inflation, and anticipated system growth. The escalation factors used in the projections shown in Table 9 are as follows:

- Wages, Salaries and Overtime - 2011-2016 3.0%
 - Personnel Services and Benefits (a) - 2011 3.5%; 2012-2016 3.0%
 - Group Insurance – 2011-2015 10%; 2016 6.0%
 - Supplies, including Chemicals – 2011 3.5%; 2012-2016 3%
 - Electric and Gas - 2011-2012 3.5%; 2013 3%; 2014-2016 5.5%
 - Contractual Services- 2011-2012 3.5%; 2013 3%; 2014-2016 4.5%
 - Bond and Liability Insurance – 2011-2016 5%
 - Capital Outlay – 2011-2012 3.5%; 2013-2016 3.0%
 - Pension - 2011 8.4%; 2012 9.3%; 2013 10.2%; 2014 11.4%; 2015-2016: 5.0%
- (a) Except group insurance and pension)

The indicated annual pension plan increases are designed to meet the required funding needs. Future operation and maintenance expense for the wastewater program is projected to increase from about \$134,394,800 in 2011 to about \$170,084,100 in 2016 as shown on Line 21 of Table 9. This includes estimated additional amounts required for new facilities to be completed during the study period and provision for a \$1.2 million civil penalty in fiscal year 2012 as part of the Consent Decree settlement.

Table 9
Projected Wastewater Operating Costs

Line No	Department	Fiscal Year Ending June 30,					
		2011	2012	2013	2014	2015	2016
		\$	\$	\$	\$	\$	\$
1	Board of Trustees	2,400	2,500	2,600	2,700	2,800	2,900
2	Rate Commission (a)	423,800	9,400	9,700	10,100	485,600	11,100
3	Civil Service Commission	7,800	7,800	7,800	7,800	7,800	7,800
4	Secretary - Treasurer	1,613,700	1,674,900	1,733,600	1,813,900	1,892,700	1,972,800
5	Executive Director	712,400	739,600	767,900	801,100	831,400	861,600
6	General Counsel	4,116,800	4,265,300	4,402,900	4,601,200	4,801,900	5,009,400
7	Office of Human Resources	9,847,600	10,303,000	10,766,400	11,330,900	11,913,800	12,430,100
8	Engineering	18,206,400	18,992,300	19,841,100	20,786,700	21,616,800	22,403,100
	Operations						
9	Collection System (b)	19,579,200	20,401,200	21,278,200	22,262,700	23,159,500	24,007,200
10	Pump Stations	7,931,300	8,210,800	8,496,800	8,896,900	9,289,200	9,684,900
11	Wastewater Treatment (c)	35,427,500	36,664,600	37,941,900	39,675,900	41,366,200	43,068,600
12	Support (d)	7,265,000	7,534,800	7,818,200	8,132,700	8,428,700	8,719,200
13	Total Operations	70,203,000	72,811,400	75,535,100	78,968,200	82,243,600	85,479,900
14	Finance	15,885,700	15,985,700	16,144,500	16,590,800	17,114,800	17,738,000
15	Information Systems	8,470,500	8,780,100	10,297,600	11,069,700	9,822,200	10,176,100
16	Subtotal (General Fund)	129,490,100	133,572,000	139,509,200	145,983,100	150,733,400	156,092,800
17	Water Backup Program	4,000,000	4,300,000	5,000,000	5,000,000	5,000,000	5,000,000
18	Real Property Fund (e)	904,700	931,800	959,800	988,600	1,018,300	1,048,800
19	Subtotal O&M	134,394,800	138,803,800	145,469,000	151,971,700	156,751,700	162,141,600
20	Additional O&M (f)	0	1,200,000	112,400	2,159,800	7,484,100	7,942,500
21	Total O&M	134,394,800	140,003,800	145,581,400	154,131,500	164,235,800	170,084,100
22	Capital Outlay	2,378,600	2,461,900	2,535,700	2,611,800	2,690,100	2,770,900
23	Total Operating Expense	136,773,400	142,465,700	148,117,100	156,743,300	166,925,900	172,855,000

- (a) It is assumed that the Rate Commission will review proposed changes in wastewater rates every four years.
- (b) Includes Mintert, Sulphur, and Grand Glaize maintenance yards and technical services
- (c) Includes Lemay, Bissell, and county treatment plants.
- (d) Includes costs related to the customer care group, administrative support and materials management.
- (e) Expenditures offset by rental income.
- (f) O&M costs related to anticipated regulatory projects. These projects include improved disinfection at four of the seven wastewater treatment plants; expansion of the Missouri River WWTP; and Capacity, Management, Operation, and Maintenance (CMOM) program activities related to Consent Decree requirements. Fiscal year 2012 includes a \$1.2 million civil penalty as part of the Consent Decree settlement.

Routine Capital Improvements

Expenditures for routine annual capital improvements include those costs that tend to be routinely incurred each year for normal replacements such as vehicles and office equipment, and minor improvements or repairs. Since the costs of these improvements are a continuing expense to be met each year, the District appropriately finances these expenditures from current wastewater and stormwater revenues. These expenditures are included in the District's annual budgets as Capital Outlay costs. As shown on Line 22 of Table 9, total capital outlay costs for the wastewater program are projected to increase from about \$2,378,600 in fiscal year 2011 to about \$2,770,900 in fiscal year 2016.

Cash Financing of Capital Improvements

In addition to cash financing routine capital improvements, the District partially finances major capital improvements on a cash or pay-as-you-go basis. The District is expected to continue to cash finance all routine capital improvements and a portion of the CIRP. The amount of projected cash financing of the major capital improvement program was previously identified on Line 4 of Table 3.

Debt Service

The District issued its first District-wide revenue bonds in April 2004 in the principal amount of \$175,000,000. Additional revenue bonds were issued in November 2006, November 2008 and January 2010 where the 2010 issue was part of the Build America Bond federal subsidized loan program. Total revenue bonds issued to date total \$350,000,000 as indicated by the adjoining table. The District has also participated in eight subordinate series of revenue bonds issued under the Missouri State Revolving Fund (“SRF”) loan program, including a recent December 2010 issuance of \$37,000,000. The total amount of SRF loans issued to date is \$332,980,700. These loans, together with the four series of revenue bonds, have used \$682,980,700 of the District’s \$775,000,000 total revenue bond authorization. The District expects to issue the remaining \$92,019,300 of its voter approved debt authorization in fiscal year 2012 which will include the Series 2011A Bonds in July 2011 and an SRF loan in November 2011. Additional revenue bonds and SRF loans are expected to be issued during the study period beginning in fiscal year 2013, assuming the District obtains additional revenue bond authorization. Additional debt required to partially finance major

Debt Issues

Series	Amount
	\$
Revenue Bonds	
2004A	175,000,000
2006C	60,000,000
2008A	30,000,000
2010B	85,000,000
Total	350,000,000
State Revolving Fund Loans	
2004B	161,280,000
2005A	6,800,000
2006A	42,715,000
2006B	14,205,000
2008B	40,000,000
2009A	23,000,000
2010A	7,980,700
2010C	37,000,000
Total	332,980,700
Remaining Authorization	
Bonds	52,020,000
SRF Loan	39,999,300
Grand Total	775,000,000

capital improvements from fiscal year 2013 through fiscal year 2016 is estimated to be \$945 million, as indicated in Table 3.

The proposed Series 2011A Bonds are expected to have a 30 year term and a debt repayment schedule similar to the one **specified by the District's financial advisors**. Additional bonds are assumed to have 30-year terms and an annual interest rate of 5.5 percent for fiscal years 2013 through 2016. Additional revenue bonds issued as part of the SRF loan program are expected to have 20-year terms and a net effective annual interest and administration cost of about 2.5 percent per year. The total annual debt service requirement resulting from existing debt plus proposed debt issued during the study period is expected to increase from \$38,404,300 in 2011 to \$111,467,300 in 2016 as indicated by Table 10.

The scheduling of the proposed revenue bond issues and SRF loans reflects current planning considerations, as recognized for purposes of this report. This is not intended to preclude the possible modification or rescheduling of issues at a later date, if desirable, due to market conditions, local financing policy or other practical considerations. The projected payments to be made to the bondholders from funds accrued in the Sinking Fund are also shown in Table 10.

Operating Reserve Allowance

The operating reserve allowance is a recommended balance to accommodate fluctuations in annual revenues and expenditures. The existing revenue bond covenants require the District to maintain a minimum balance equal to 45 days of operation and maintenance expense. For this report, an operating reserve allowance equal to 60 days or about 16.4 percent of annual operating expense is assumed to be maintained, as provided by the current budget. Operating expense, as routinely presented in the District's annual budgets, is equal to the sum of operation and maintenance expense and routine annual capital improvements. The operating reserve for wastewater operations is projected to increase to about \$28,415,000 by the end of the study period through revenues set aside to maintain a 60-day operating reserve allowance.

Financial Analysis

A pro forma cash flow statement showing projected wastewater revenues and revenue requirements for the District during the study period is presented in Table 11. System revenues must be at least sufficient to finance the costs of operation and maintenance expense, routine annual capital improvements, and debt service costs on existing and

Table 10
Projected Debt Service Requirements

Fiscal Year	Existing Revenue Bonds	Proposed Revenue Bonds	Existing SRF Loans	Proposed SRF Loans	Total
	\$	\$	\$	\$	\$
Payments to Sinking Fund					
2011	19,290,600	0	19,113,700	0	38,404,300
2012	19,415,200	3,281,000	21,311,100	1,711,000	45,718,300
2013	19,550,800	20,780,600	21,401,300	4,062,800	65,795,500
2014	19,686,000	35,573,800	21,483,500	6,307,900	83,051,200
2015	19,834,400	49,334,900	21,355,600	8,553,000	99,077,900
2016	19,973,200	58,967,700	21,728,600	10,797,800	111,467,300
Payments to Bondholders					
2011	19,270,300	0	18,292,600	0	37,562,900
2012	19,392,400	1,430,600	20,232,600	500,000	41,555,600
2013	19,528,800	10,454,300	21,395,200	3,003,300	54,381,600
2014	19,660,900	26,693,100	21,345,500	5,248,400	72,947,900
2015	19,811,800	41,073,800	21,545,900	7,493,500	89,925,000
2016	19,947,200	53,184,900	21,324,600	9,738,600	104,195,300

Table 11
Comparison of Projected Wastewater Revenue Under Existing Rates With Projected Revenue Requirements

Line No.	Description	Fiscal Year Ending June 30,						Total
		2011	2012	2013	2014	2015	2016	
		\$	\$	\$	\$	\$	\$	\$
1	Revenue Under Existing Rates (a)	213,795,600	212,030,000	211,019,700	210,681,800	210,501,800	210,431,800	1,268,460,700
	Additional Revenue Required							
	Fiscal Year							
	Revenue Increase							
	Months Effective							
2	2012		8,357,500	9,073,800	9,059,300	9,051,600	9,048,600	44,590,800
3	2013			22,192,800	24,171,500	24,150,900	24,142,800	94,658,000
4	2014				26,830,400	29,244,500	29,234,800	85,309,700
5	2015					30,024,400	32,743,000	62,767,400
6	2016						33,616,100	33,616,100
7	Total Additional Revenue	0	8,357,500	31,266,600	60,061,200	92,471,400	128,785,300	320,942,000
8	Total Service Charge Revenue	213,795,600	220,387,500	242,286,300	270,743,000	302,973,200	339,217,100	1,589,402,700
9	Other Operating Revenue	(750,500)	3,382,400	1,271,100	295,400	(824,500)	(2,084,700)	1,289,200
10	Connection Fee Revenue	1,250,000	1,288,000	1,327,000	1,367,000	1,408,000	1,450,000	8,090,000
11	Interest Income - Reserve Funds	888,800	965,500	1,197,800	1,486,600	1,753,500	1,969,100	8,261,300
12	Interest Income - Operations	30,800	47,300	50,200	50,300	50,300	50,200	279,100
13	Interest Income - Arnold	650,700	631,000	610,500	589,100	566,800	543,600	3,591,700
14	Subtotal Other Revenue	2,069,800	6,314,200	4,456,600	3,788,400	2,954,100	1,928,200	21,511,300
15	Total Revenue	215,865,400	226,701,700	246,742,900	274,531,400	305,927,300	341,145,300	1,610,914,000
16	Operation and Maintenance Expense	134,394,800	138,803,800	145,469,000	151,971,700	156,751,700	162,141,600	889,532,600
17	Additional O&M (b)	0	1,200,000	112,400	2,159,800	7,484,100	7,942,500	18,898,800
18	Net Revenue	81,470,600	86,697,900	101,161,500	120,399,900	141,691,500	171,061,200	702,482,600
	Debt Service							
19	Existing Senior Revenue Bonds	19,290,600	19,415,200	19,550,800	19,686,000	19,834,400	19,973,200	117,750,200
20	Proposed Senior Revenue Bonds	0	3,281,000	20,780,600	35,573,800	49,334,900	58,967,700	167,938,000
21	Total Senior Revenue Bonds	19,290,600	22,696,200	40,331,400	55,259,800	69,169,300	78,940,900	285,688,200
22	Existing State Revolving Fund Loans (c)	19,113,700	21,311,100	21,401,300	21,483,500	21,355,600	21,728,600	126,393,800
23	Proposed State Revolving Fund Loans (c)	0	1,711,000	4,062,800	6,307,900	8,553,000	10,797,800	31,432,500
24	Total State Revolving Fund Loans	19,113,700	23,022,100	25,464,100	27,791,400	29,908,600	32,526,400	157,826,300
25	Commercial Paper	0	0	0	0	0	0	0
26	Total Debt Service	38,404,300	45,718,300	65,795,500	83,051,200	99,077,900	111,467,300	443,514,500
27	Routine Annual Improvements	2,378,600	2,461,900	2,535,700	2,611,800	2,690,100	2,770,900	15,449,000
28	Cash Financing of Major Improvements	37,250,000	37,038,000	31,877,000	33,317,000	38,258,000	55,850,000	233,590,000
29	Additions to Operating Reserve	674,500	935,700	929,000	1,418,000	1,673,900	974,600	6,605,700
30	Net Annual Balance (d)	2,763,200	544,000	24,300	1,900	(8,400)	(1,600)	3,323,400
31	Beginning of Year Balance (e)	1,696,900	4,460,100	5,004,100	5,028,400	5,030,300	5,021,900	1,696,900
32	End of Year Balance (e)	4,460,100	5,004,100	5,028,400	5,030,300	5,021,900	5,020,300	5,020,300

(a) Revenue under existing wastewater rates effective July 1, 2010.

(b) O&M costs related to anticipated regulatory projects. These projects include improved disinfection at four wastewater treatment plants; expansion of the Missouri River WWTP; and Capacity, Management, Operation, and Maintenance (CMOM) program activities related to Consent Decree requirements. Fiscal year 2012 includes a \$1.2 million civil penalty as part of the Consent Decree settlement.

(c) Debt service on State Revolving Fund (SRF) Loans are net of the state's interest subsidy.

(d) Negative balances indicate need to drawdown available fund balance.

(e) Does not include funds set aside for a minimum operating reserve equal to 60 days of operating expenses.

proposed debt, while maintaining adequate operating reserve funds and complying with all revenue bond debt service coverage requirements. Annual revenues can also be used to finance a portion of the major capital improvement program.

Table 11 indicates that annual wastewater revenues under existing rates, Board approved rates to be fully effective beginning July 1, 2011 and proposed rates under consideration by the Rate Commission for fiscal years 2013 through 2016 are sufficient to meet the total revenue requirements of the system during the study period. Line 1 of Table 11 shows projected revenue under existing rates, as previously presented in Table 7. Lines 2 through 6 show projected increases in wastewater revenues to be in effect at the beginning of each fiscal year. It is anticipated that ordinances will be enacted by the Board to impose the proposed wastewater rates when required. The magnitude of the revenue increases shown in Table 11 were selected based on consideration of three principal criteria, which include: (1) total revenue necessary to meet cash requirements for normal operations, (2) gradual annual increases in revenues available to cash finance major capital improvements, and (3) total revenue required to provide a reasonable margin of debt service coverage in excess of minimum expected bond covenant requirements.

As indicated on Lines 9 and 10 of Table 11, other operating revenue and connection fee revenue, previously projected in Table 8, are available for the wastewater system. Projected revenue from district-wide connection fees is included in the cash financing of major improvements line item (Line 28), which is also shown as Line 4 of Table 3, and is used to cash finance the Improvement Fund projects shown on Line 9 of Table 3. Interest income that is available from restricted or reserve funds for operating purposes is shown on Line 11 of Table 11. No restricted fund balances are included in the fund balances shown on Lines 31 and 32 of Table 11. Interest earned on operating fund balances is shown on Line 12 and the interest portion of the City of Arnold's debt repayment for a portion of the Meramec River Treatment Plant is shown on Line 13 of Table 11. Interest income is estimated based on a 1.0 percent annual interest rate applied to the average beginning and end of year fund balances. A slightly higher rate of 1.2 percent is assumed for funds held in the revenue bond reserve fund to reflect the ability to invest these funds for a longer term.

Total revenue available for wastewater utility operations is shown on Line 15 of Table 11. Total operation and maintenance expense for the wastewater program, previously projected in Table 9, is shown on Lines 16 and 17 of Table 11. Line 18 shows the estimated net revenue remaining after deducting total projected operation and maintenance expense (Lines 16 and 17 from total wastewater revenue (Line 15). This net wastewater revenue is available or pledged for debt service coverage purposes.

Debt service requirements on existing and projected revenue bonds and SRF loans are presented on Lines 19 through 26. As previously described, it is projected that revenue bonds

in the aggregate amount of \$857,020,000 and SRF loans in the aggregate amount of \$216,999,300 will be issued in fiscal years 2011 through 2016 to help finance major capital program expenditures. This debt financing program will provide a mechanism to spread the costs of major capital improvements over a portion of their useful lives and more equitably recover these costs from both current and future users of the improvements.

Line 27 of Table 11 shows the total amount of routine annual improvements, which are completely financed by annual revenues. Funds used to finance a portion of the major capital improvement program are reported as a cost on Line 28 of Table 11 and as a source of revenue on Line 4 of Table 3. Annual amounts required to maintain an operating balance equal to 60 days of combined operation and maintenance expense (Lines 16 and 17) and routine annual capital expenditures (Line 27) are shown on Line 29. The net annual balance of annual revenues less expenditures is presented on Line 30. Lines 31 and 32 of Table 11 show the projected combined beginning and ending cash balances of the wastewater utility for each year of the study period exclusive of the targeted operating reserve balances. District staff provided information regarding the unencumbered balance of funds available at the beginning of 2011.

Wastewater Bill Comparison

Table 12 presents a comparison of typical wastewater service bills under existing rates for fiscal year 2011, rates currently approved for fiscal year 2012 and rates proposed to be effective in fiscal years 2013 through 2016 for various billable wastewater volumes. As indicated in the table, the monthly wastewater bill for the average metered residential customer contributing 8 Ccf of wastewater per month would increase by 4.2 percent in 2012 with additional increases of 12.7 percent in 2013, 13.4 percent in 2014, 13.2 percent in 2015 and 13.2 percent in 2016. These increases are slightly higher than the overall average revenue increases for the wastewater system reflected in Table 11. The higher residential increases are due to the proposed recovery of some environmental compliance costs from all customers instead of only the non-residential customers. This results in a net shift of costs from non-residential customers to residential customers over a four-year transition period.

Table 13 presents the results of a 2009 Black & Veatch rate survey of the 50 largest U.S. cities. Rates shown in this survey were in effect on July 1, 2009 and reflect the District's wastewater rates implemented by Ordinance 12754 on July 1, 2009, one year prior to the implementation of the existing rates. Based on this survey, St. Louis had the twenty-seventh lowest wastewater bill for medium residential customers of the fifty largest U.S. cities and charges its customers less than the average wastewater charge for four of the five categories surveyed. The typical bill for small residential customers was slightly higher than the

national average due to higher than average costs recovered by the fixed monthly service charge.

Table 12
Typical Bill Comparison

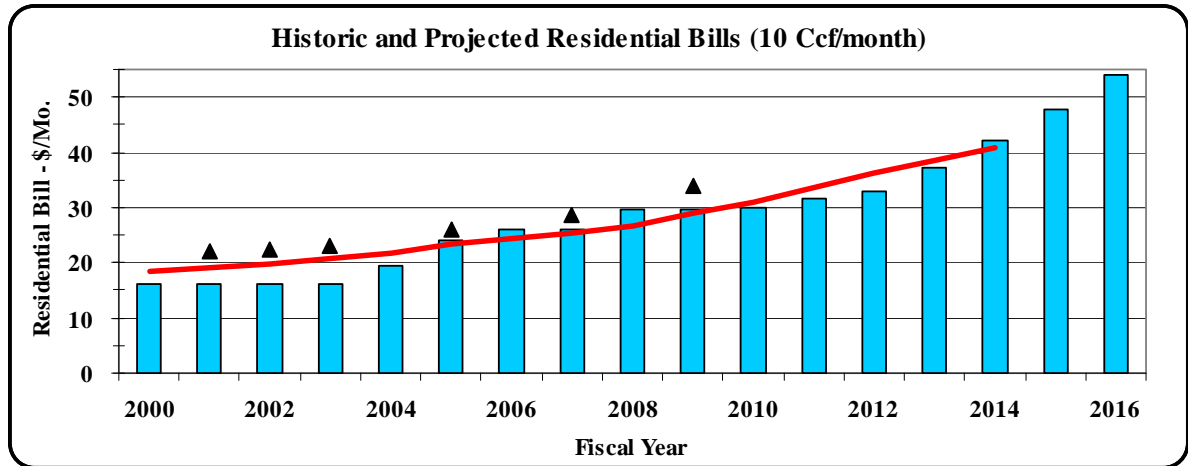
Line No.	Customer Class	Billed Wastewater Volume Ccf	Typical Wastewater Bills					2016
			2011	2012	2013	2014	2015	
			\$	\$	\$	\$	\$	\$
Single Family			(a)					
1	Small	5	21.50	22.40	25.20	28.55	32.35	36.70
2	Medium	8	27.56	28.73	32.37	36.71	41.56	47.05
3	Medium per 50 Largest Cities	10	31.60	32.95	37.15	42.15	47.70	53.95
4	Large	20	51.80	54.05	61.05	69.35	78.40	88.45
Multifamily								
5	Small	20	51.80	54.05	61.05	69.35	78.40	88.45
6	Medium	40	92.20	96.25	108.85	123.75	139.80	157.45
7	Large	60	132.60	138.45	156.65	178.15	201.20	226.45
Non-Residential - Normal Strength with Tier 2 Environmental Compliance Charge								
8	Small	70	183.65	191.50	220.80	247.95	275.95	306.30
9	Medium	100	244.25	254.80	292.50	329.55	368.05	409.80
10	Medium per 50 Largest Cities	134	312.93	326.54	373.76	422.03	472.43	527.10
11	Large	160	365.45	381.40	435.90	492.75	552.25	616.80
Non-Residential - Excess Strength with Tier 2 Environmental Compliance Charge (b)								
12	Small	70	210.49	219.39	248.69	275.86	305.74	337.06
13	Average	100	282.60	294.65	332.35	369.42	410.61	453.74
14	Large	160	426.80	445.16	499.66	556.53	620.34	687.11

Ccf - Hundred Cubic Feet

(a) Based on proposed 2012 approved rates to be effective July 1, 2011.

(b) Assumes suspended solids excess strength of 150 mg/l and biochemical oxygen demand excess strength of 150 mg/l.

The figure below shows historic and projected wastewater bills for residential customers using 10 Ccf per month (bars) compared to the national average for respondents to the NACWA annual surveys through 2009 with their 5-year projection through 2014 (line) and the average of the 50 largest cities surveyed periodically by Black & Veatch (triangles).



As indicated in the above figure, the residential bills for District customers have closely tracked the NACWA national average. This trend is expected to continue through 2016. As shown in Table 13, the District's typical bills compare more favorably with other large cities as billed wastewater volume increases.

Table 13
Survey of Typical Monthly Wastewater Bills - 50 Largest Cities
Ranked from Lowest (1) to Highest (50)

City	Small Residential (a)		Medium Residential (b)		Large Residential (c)		Commercial (d)		Industrial (e)	
	Bill with	Rank	Bill with	Rank	Bill with	Rank	Bill with	Rank	Bill with	Rank
	3.75 Mgal		7.5 Mgal		15 Mgal		100 Mgal		10,000 Mgal	
	\$		\$		\$		\$		\$	
Albuquerque	11.60	9	15.71	6	23.93	7	125.31	4	13,225.47	5
Arlington	18.72	26	29.67	25	51.57	22	346.39	24	29,486.00	21
Atlanta	50.06	49	110.69	50	235.19	50	1,654.49	50	166,816.19	50
Austin	27.60	43	55.50	45	111.30	45	731.00	45	66,408.00	44
Baltimore	33.19	47	33.19	30	66.38	32	531.04	38	44,474.60	34
Boston	24.40	37	49.44	44	100.57	44	724.52	44	79,075.96	46
Charlotte	21.80	35	41.80	41	81.80	42	537.80	39	53,601.80	42
Chicago	5.59	2	11.19	3	22.37	6	149.89	5	14,989.24	6
Cleveland	18.58	25	37.15	35	74.30	38	497.81	35	49,781.00	39
Colorado Springs	25.71	38	37.66	37	61.56	29	372.57	28	34,598.85	28
Columbus	20.34	31	37.46	36	71.71	35	462.08	32	45,889.51	35
Dallas	19.20	28	34.92	32	66.94	33	279.44	16	26,339.51	15
Denver	7.31	5	14.63	5	29.25	11	190.00	8	19,000.00	10
Detroit	21.54	34	33.89	31	58.60	27	411.44	30	33,191.73	27
El Paso	11.38	8	17.73	9	30.43	12	227.34	12	17,341.20	9
Fort Worth	17.70	22	30.90	27	44.10	18	427.94	31	42,348.50	33
Fresno	21.01	33	21.01	13	21.01	5	195.70	9	7,423.60	2
Honolulu	53.44	50	59.96	46	73.00	36	734.00	46	73,400.00	45
Houston	6.51	3	29.93	26	60.39	28	509.20	36	50,803.21	40
Indianapolis	15.55	18	25.41	16	46.16	19	290.82	17	28,993.22	20
Jacksonville	22.87	36	41.39	40	80.67	40	528.81	37	49,617.37	38
Kansas City	20.00	30	31.40	28	54.20	26	314.12	20	30,560.60	22
Las Vegas	19.67	29	19.67	10	19.67	4	262.20	14	26,220.00	14
Long Beach	6.61	4	7.85	2	10.33	1	55.70	1	3,458.86	1
Los Angeles	16.35	20	32.70	29	65.40	31	394.36	29	39,436.20	32
Louisville	17.29	21	26.06	17	43.61	17	312.89	19	28,281.05	18
Memphis	3.59	1	7.19	1	14.37	3	95.80	2	9,580.00	3
Mesa	13.86	17	20.05	11	34.60	14	199.84	10	19,405.84	11
Miami	10.17	6	27.62	23	67.19	34	541.03	40	53,169.76	41
Milwaukee	10.74	7	16.90	8	29.23	10	179.24	6	16,523.27	7
Minneapolis	13.05	13	26.10	18	52.20	23	349.74	25	34,974.00	29
Nashville	18.89	27	39.39	39	92.52	43	550.56	41	38,858.41	31
New York City	18.36	24	36.73	34	73.46	37	492.17	34	49,216.86	37
Oakland	12.86	12	13.15	4	13.15	2	183.34	7	16,898.50	8
Oklahoma City	13.13	14	24.72	15	47.89	21	310.54	18	30,901.54	23
Omaha	12.76	11	16.71	7	24.62	8	115.53	3	11,050.07	4
Philadelphia	26.61	40	36.47	33	118.00	46	662.61	42	28,914.33	19
Phoenix	13.46	16	26.92	20	53.83	25	315.76	21	31,575.76	24
Portland	32.50	46	65.00	47	130.00	47	888.82	47	88,882.20	47
Raleigh	13.30	15	23.20	14	43.00	16	268.72	15	26,535.40	16
Sacramento	26.32	39	26.32	19	30.69	13	357.91	27	35,790.77	30
San Antonio	12.40	10	20.11	12	35.54	15	210.38	11	20,574.68	12
San Diego	31.13	45	47.95	43	81.58	41	676.79	43	66,173.58	43
San Francisco	27.36	42	76.21	48	173.91	48	1,107.76	48	110,776.46	48
San Jose	27.09	41	27.09	21	27.09	9	325.62	22	32,562.00	26
Seattle	44.45	48	88.90	49	177.80	49	1,191.26	49	119,126.00	49
Tucson	17.79	23	27.25	22	46.18	20	261.98	13	25,374.52	13
Tulsa	16.19	19	28.31	24	52.53	24	329.96	23	32,319.10	25
Virginia Beach	30.94	44	42.34	42	65.14	30	356.94	26	28,099.61	17
Washington	20.51	32	38.59	38	74.82	39	486.96	33	48,547.41	36
Average	20.03		33.80		63.28		434.52		41,011.83	
Median	18.65		29.80		54.02		353.34		32,440.55	
St. Louis (f)	20.50	32	30.10	27	49.30	22	297.83	18	25,768.55	14

(a) Assumes 3,750 gallons (or 500 cubic feet) monthly billed wastewater volume and a 5/8" (or nearest equivalent) meter size.

(b) Assumes 7,500 gallons (or 1,000 cubic feet) monthly billed wastewater volume and a 5/8" (or nearest equivalent) meter size.

(c) Assumes 15,000 gallons (or 2,000 cubic feet) monthly billed wastewater volume and a 3/4" (or nearest equivalent) meter size.

(d) Assumes 100,000 gallons (or 13,400 cubic feet) monthly billed wastewater volume and a 2" (or nearest equivalent) meter size.

Bond Covenant Compliance

Rate Covenants

The majority of all District wastewater and stormwater revenues are deposited into and accounted for by separate wastewater and stormwater operating funds. Portions of these revenues are transferred to the General Fund, as required, to pay each utility's portion of operation and maintenance expense and routine capital expenditures.

Section 6.1 of the Bond Ordinance requires the District to operate the System on a revenue producing basis and at all times to prescribe, fix, maintain, and collect rates, fees, and other charges for the services, facilities, and commodities furnished by the System fully sufficient at all times to pay annual operation and maintenance expense, provide a reasonable operating reserve, produce net revenues in each fiscal year equal to at least 1.25 times the Debt Service Requirement on all Senior Bonds currently outstanding and 1.15 times the Debt Service Requirement on all Bonds then outstanding and accumulate sufficient funds to meet the costs of major renewals, replacements, repairs, additions, betterments, and improvements to the System to keep it in good working condition. In addition, Section 3.020(16) of the Charter requires the District to establish fair and reasonable schedules of charges and Section 7.130 of the Charter requires a balanced budget.

Based on a detailed analysis of the System's revenue and revenue requirements, as presented in the Wastewater System Financing section of this report, the District will continue to meet the rate covenant requirements after issuance of the Series 2011A Bonds. In addition, the current wastewater rates approved by the Board for fiscal year 2012 and the rates proposed for fiscal years 2013 through 2016 are projected to provide sufficient user charge revenues, together with other available revenue sources, to meet all projected revenue requirements related to the proposed CIRP and remain in compliance with the rate covenants throughout the six-year study period.

Reasonable Charges

Section 6.7 of the Bond Ordinance requires that:

“None of the facilities or services afforded by the System will be furnished to any user without a reasonable charge being made therefor”.

Current, approved and proposed rates for the System are based on detailed cost of service analyses to provide reasonable assurance that each customer class pays its proportionate share of the costs required to provide utility service. All users of the System are

paying their proportionate share of operating and maintenance expenses in compliance with the Bond Ordinance requirement and Federal user charge requirements. No free service is being provided by the District.

Adequate Maintenance

Section 6.2 of the Bond Ordinance requires the District to operate the System in an efficient and economical manner and maintain the System at all times in good repair and sound operating condition. The System has historically been adequately maintained and found to be in good working order. Although costs are considered reasonable and result in rates comparable to similar sized utilities, the District is continuously looking at ways to reduce costs and keep utility rates as low as possible.

Additional Bonds Coverage Tests

In order to issue additional revenue bonds on parity with prior Bonds, the District must have sufficient revenues to meet either a preceding year or ensuing year additional bonds coverage test. Section 5.3 of the Bond Ordinance requires historical Net Operating Revenues and Investment Earnings (“net revenues”) for a period of 12 consecutive months of the most recent 18 consecutive months prior to the issuance of the proposed Senior Bonds to be at least equal to (i) 1.25 times the Maximum Annual Debt Service Requirement on all Senior Bonds which will be Outstanding immediately after the issuance of the proposed Senior Bonds, and (ii) 1.15 times the Maximum Annual Debt Service Requirement on all Bonds which will be Outstanding immediately after the issuance of the proposed Senior Bonds.

Capitalized terms are defined in the Bond Ordinance.

For the ensuing year additional bonds test, the Bond Ordinance requires the forecasted net revenues for each fiscal year in the Forecast Period (the three consecutive fiscal years commencing with the fiscal year in which any proposed Senior Bonds are to be issued) to be at least (i) 1.25 times the Maximum Annual Debt Service Requirement on all Senior Bonds that will be Outstanding immediately after the issuance of the proposed Senior Bonds, and (ii) 1.15 times the Maximum Annual Debt Service Requirement on all Bonds which will be Outstanding immediately after the issuance of the proposed Senior Bonds.

Revenue adjustments are allowed for the preceding year test for any rate increase enacted prior to the delivery date of the proposed Senior Bonds and not fully reflected in the historical Net Operating Revenues actually received during the 12-month period. A similar adjustment is allowed for the ensuing year test if the rates were actually adopted by ordinance prior to issuance of the bonds. Without a future rate adjustment provision for the ensuing year test, the normal inflationary increases in operation and maintenance expenses

could outpace the revenues obtained from a relatively stable customer base such that future net revenues and ensuing year debt service coverage may significantly decrease towards the end of the Forecast Period. This may require the District to enact multiple year rate increases prior to issuance of the Bonds, set rates at a current year debt service coverage level of 1.50 times the Debt Service Requirement or higher to account for the expected coverage deterioration, or only rely on the historic year test to issue additional Senior Bonds.

The Bond Ordinance also specifies additional bond tests for the issuance of any Subordinate Bonds. These tests are identical to the additional Senior Bond tests.

The District has never defaulted on any District-wide or subdistrict revenue bond payment and is expected to be able to issue additional revenue bonds throughout the study period. However, the issuance of additional revenue bonds in 2013 through 2016 will require voter approval of an additional revenue bond authorization of about \$1 billion. Table 14 presents the results of the rate covenant and additional bond coverage tests during the six-year study period. As indicated by Line 4 of Table 14, the indicated annual rate covenant coverage ranges from 2.33 times annual debt service to 4.23 times annual debt service, well above the 1.25 minimum requirement. Likewise, the additional bond coverage levels for Senior Bonds, as shown on Lines 11 and 16 of Table 14, are also well above their 1.25 minimum requirements. Coverage indicated for total debt is also above the 1.15 minimum requirement, as shown on Lines 12 and 17 of Table 14.

Table 14
Debt Service Coverage Under Indicated Revenue Levels

Line No.	Description	Fiscal Year Ending June 30,					
		2011	2012	2013	2014	2015	2016
Rate Covenant Coverage							
1	Projected Actual Net Revenue (a)	81,470,600	86,697,900	101,161,500	120,399,900	141,691,500	171,061,200
	Projected Actual Debt Service Becoming Due in Each Fiscal Year (b)						
2	Senior Lien Bonds	19,270,300	20,823,000	29,983,100	46,354,000	60,885,600	73,132,100
3	Total Debt (c)	37,562,900	41,555,600	54,381,600	72,947,900	89,925,000	104,195,300
	Projected Actual Net Revenue as a Percent of Debt Service						
4	Senior Bonds (d)	4.23 x	4.16 x	3.37 x	2.60 x	2.33 x	2.34 x
5	Total Debt (e)	2.17 x	2.09 x	1.86 x	1.65 x	1.58 x	1.64 x
Additional Parity Bond Coverage							
	Projected Maximum Annual Debt Service (f)						
6	Senior Bonds Only	32,433,300	36,012,600	53,213,900	68,007,100	81,768,200	91,401,000
7	All Senior and Subordinate Bonds	43,232,200	49,377,300	68,823,700	85,862,000	101,868,200	113,746,100
Preceding Year Test							
8	Net Revenue for Prior Fiscal Year	77,329,900	81,470,600	86,697,900	101,161,500	120,399,900	141,691,500
9	Net Revenue Adjustment (g)	411,500	9,193,200	25,086,000	31,334,000	35,221,000	39,413,800
10	Adjusted Net Revenue	77,741,400	90,663,800	111,783,900	132,495,500	155,620,900	181,105,300
	Adjusted Net Revenue for Preceding Year as a Percent of Debt Service						
11	Senior Bonds (h)	2.40 x	2.52 x	2.10 x	1.95 x	1.90 x	1.98 x
12	Total Debt (i)	1.80 x	1.84 x	1.62 x	1.54 x	1.53 x	1.59 x
Ensuing Year Test							
13	Net Revenue for Ensuing Fiscal Year	86,697,900	101,161,500	120,399,900	141,691,500	171,061,200	201,537,900
14	Net Revenue Adjustment (j)	(8,357,500)	(22,192,800)	(26,830,400)	(30,024,400)	(33,616,100)	(37,647,900)
15	Adjusted Net Revenue	78,340,400	78,968,700	93,569,500	111,667,100	137,445,100	163,890,000
	Projected Actual Net Revenue for Ensuing Fiscal Year as a Percent of Debt Service						
16	Senior Bonds (k)	2.42 x	2.19 x	1.76 x	1.64 x	1.68 x	1.79 x
17	Total Debt (l)	1.81 x	1.60 x	1.36 x	1.30 x	1.35 x	1.44 x

- (a) Net revenue as shown on Line 18 of Table 11. Includes the impact of adopted rate increases each year, which will be fully operative in the years indicated by Table 11.
- (b) Projected actual payments of principal and interest from the Sinking Fund to bondholders.
- (c) Includes senior revenue bond and subordinate debt obligations.
- (d) Line 1 / Line 2. The Bond Ordinance requires net revenue to equal or exceed 1.25x actual debt service.
- (e) Line 1 / Line 3. The Bond Ordinance requires net revenue to equal or exceed 1.15x actual debt service.
- (f) Maximum future debt service for all series of revenue bonds issued in previous years or during the current fiscal year.
- (g) Adjustment for revenue increases to be fully operative July 1 of the current fiscal year as permitted by the Bond Ordinance.
- (h) Line 10 / Line 6. The Bond Ordinance requires adjusted net revenue for the preceding fiscal year to equal or exceed 1.25x the maximum annual debt service on all then outstanding senior lien revenue bonds.
- (i) Line 10 / Line 7. The Bond Ordinance requires adjusted net revenue for the preceding fiscal year to equal or exceed 1.15x the maximum annual debt service on all then outstanding debt obligations.
- (j) Adjustment for revenue increases not permitted for the ensuing year coverage test unless already authorized by the Board.
- (k) Line 15 / Line 6. The Bond Ordinance requires net revenue for the ensuing three fiscal years to equal or exceed 1.25x the maximum annual debt service on all then outstanding senior lien revenue bonds.
- (l) Line 15 / Line 7. The Bond Ordinance requires net revenue for the ensuing three fiscal years to equal or exceed 1.15x the maximum annual debt service on all then outstanding debt obligations.

Principal Black & Veatch Assumptions

In conducting our analyses and in forming an opinion 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. The principal assumptions used in the forecast of future operations are as follows:

1. In preparation of this report, Black & Veatch has relied on certain historical, financial, and statistical data supplied by District staff. While such data is considered reliable, Black & Veatch has not independently verified the detailed accuracy of such data.
2. The District's estimates of content, scheduling, and cost of the six-year capital improvement program present a reasonable projection of the future construction program and complies with the initial terms of the Consent Decree.
3. Billed wastewater volume will continue to decrease but will level off towards the end of the study period.
4. The Rate Commission will recommend the indicated wastewater revenue increases to the Board in time for their stated implementation.
5. A Bond election will be held in fiscal year 2012 and the qualified voters in the District will authorize approximately \$1 billion of additional wastewater revenue bonds.
6. The Board will approve the indicated revenue increases for fiscal years 2013 through 2016 and the issuance of additional bonds as required to finance the CIRP.
7. Debt service for the revenue bonds proposed to be issued after the Series 2011A Bonds will be approximately as estimated.
8. The District will maintain a minimum operating reserve balance at all times that is at least equal to 60 days of operating expenditures.
9. If the District does not obtain additional revenue bond authority, the Board will approve the alternative pay-as-you-go wastewater rates for fiscal year 2013 currently under consideration by the Rate Commission.
10. There will be no material changes in federal and state laws or regulations that would adversely impact the District's ability to secure tax-exempt financing for its System, place more stringent limitations on wastewater effluent discharges, materially

- increase the cost of constructing or operating the wastewater system, or otherwise adversely impact operations of the System.
11. The general economy that impacts System costs and users' capabilities to pay wastewater service charges will remain relatively stable at current conditions.
 12. All revenue and revenue requirement projections presented in this report are expressed on a cash basis consistent with the District's operating budgets. It is assumed that similar analysis based upon an accrual basis will not significantly alter the findings with respect to the financial feasibility of the Series 2011A Bonds.