

RATE RECOMMENDATION REPORT

of

**THE RATE COMMISSION OF THE
METROPOLITAN ST. LOUIS SEWER DISTRICT**

to the

**BOARD OF TRUSTEES OF THE
METROPOLITAN ST. LOUIS SEWER DISTRICT**

upon the

WASTEWATER RATE CHANGE PROPOSAL

August 16, 2019

**BLACK & VEATCH MANAGEMENT CONSULTING, LLC, RATE CONSULTANT,
AND LASHLY & BAER, P.C., LEGAL COUNSEL,
TO THE RATE COMMISSION OF THE
METROPOLITAN ST. LOUIS SEWER DISTRICT**

**THIS IS THE REPORT REQUIRED BY THE CHARTER PLAN AND HAS
BEEN ADOPTED BY A MAJORITY OF THE RATE COMMISSION
DELEGATES IN ACCORDANCE WITH CHARTER PLAN, § 7.280(f).**

TABLE OF CONTENTS

INTRODUCTION..... 3

EXECUTIVE SUMMARY 4

BACKGROUND 9

 Metropolitan St. Louis Sewer District 9

 The Rate Commission 10

 Appointment 11

 Rate Commission’s Operational Rules 13

 Rate Commission’s Procedural Schedule 13

 Rate Commission’s Proceedings 14

 Statutory Construction 18

CRITERIA FOR RECOMMENDATION 19

 First Criteria: Whether the Rate Change Proposal is necessary to pay interest and principal falling due on bonds issued to finance assets of the District 20

 Second Criteria: Whether the Rate Change Proposal is necessary to pay the costs of operation and maintenance 34

 Third Criteria: Whether the Rate Change Proposal provides for funds in such amounts to cover emergencies and anticipated delinquencies 39

FACTORS FOR RECOMMENDATION 45

 First Factor: Whether the Rate Change Proposal, and all portions thereof, “Is consistent with constitutional, statutory or common law as amended from time to time” 46

 Second Factor: Whether the Rate Change Proposal, and all portions thereof, “Enhances the District’s ability to provide adequate sewer and drainage systems and facilities, or related services” 60

 Third Factor: Whether the Rate Change Proposal, and all portions thereof, “Is consistent with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District” 67

 Fourth Factor: Whether the Rate Change Proposal, and all portions thereof, “Does not impair the ability of the District to comply with applicable Federal or State laws or regulations as amended from time to time” 79

 Fifth Factor: Whether the Rate Change Proposal, and all portions thereof, “Imposes a fair and reasonable burden on all classes of ratepayers” 90

EXHIBIT A – Rate Commission Consultant’s Memorandum regarding Evaluation of the Impact of the Rate Commission’s Recommended Modifications..... 114

MINORITY REPORTS 120

PROCEEDINGS INDEX 125

ABBREVIATIONS & ACRONYMS 134

INTRODUCTION

The Wastewater Rate Change Proposal of the Metropolitan St. Louis Sewer District (the “District”) was presented to the Rate Commission on March 4, 2019.

The Rate Commission initiated certain proceedings in order to provide for the advance submission of written testimony, the conduct of three technical conferences, a prehearing conference, discovery procedures, public hearings, and the filing of post-hearing briefs with procedural fairness to the parties. See Charter Plan of the Metropolitan St. Louis Sewer District (hereinafter “Charter Plan”), § 7.280. The Missouri Industrial Energy Consumers (“MIEC”) intervened and participated in these proceedings. The record of these proceedings may be found online at the Metropolitan St. Louis Sewer District website under “MSD Rate Commission.” All of the written testimony, exhibits, document requests and responses, transcripts of testimony, legal memoranda, and other materials contained therein have been admitted into evidence and discussed and considered by the Rate Commission Delegates for the purpose of making the findings and determinations contained in this Report. These proceedings (the “Proceedings”) are incorporated herein by reference.

The Rate Commission’s Report to the Board of Trustees (the “Board”) of the District is due within 120 days of receipt of the Rate Change Proposal, or July 2, 2019, unless the Board of Trustees shall, upon application of the Rate Commission, extend the period for one additional 45-day period. The Rate Commission submitted a request for such an extension on March 4, 2019; and on March 14, 2019, the Board of Trustees approved an extension of the period to August 16, 2019. See Charter Plan, § 7.290(f).

This is the Report required by the Charter Plan and has been adopted by a majority of the Rate Commission Delegates. See Charter Plan, § 7.280(f).

EXECUTIVE SUMMARY

The District's Rate Change Proposal¹ was presented to the Rate Commission on March 4, 2019. The Rate Change Proposal presents the District's proposal to use \$500,000,000 in bond financing and \$550,000,000 in cash financing to fund its Capital Improvement and Repairs Program ("CIRP") from FY 2021 through FY 2024; to provide the funds needed to comply with regulatory requirements relating to deficiencies in the District's wastewater system, including sewers, pump stations, and treatment plants; and to satisfy the requirements of the Consent Decree in the matter captioned United States of America, the State of Missouri and the Missouri Coalition for the Environment Foundation vs. the Metropolitan St. Louis Sewer District. On July 15, 2011, the District entered into a Consent Decree program with the United States Environmental Protection Agency (the "EPA"), the State of Missouri and the Missouri Coalition for the Environment Foundation obligating the District to invest \$4.7 billion for a 23-year period in activities described in the Consent Decree. See Ex. MSD 37.

The District proposes to finance the required capital improvements by a combination of wastewater user charge revenues, available fund balances, senior revenue bonds, Water Infrastructure Finance and Innovation Act loans, Missouri State Revolving Fund loans, grants and contributions, and interest income. The impact of the Rate Change Proposal upon wastewater rates, if principally funded by bond financing, is described in Ex. MSD 1, Table 4-10.

In the event that voters of the District do not approve bond financing for the CIRP, the District proposes cash financing in order to comply with the terms of the Consent Decree. The

¹ This summary of the Rate Setting Documents does not purport to be complete and reference is made to the full text of the Rate Setting Documents or a complete recital of the terms of the rate changes proposed by the District.

impact of the Rate Change Proposal upon wastewater rates, if principally funded by cash financing is described in Ex. MSD 1, pgs. 6-1 – 6.5.

First Criteria: Whether the Rate Change Proposal is necessary to pay interest and principal falling due on bonds issued to finance assets of the District. See Charter Plan, § 7.040.

The Rate Commission, after discussion and consideration of all of the facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal to fund the capital improvement and replacement program with a combination of bond and cash financing provides for the funds necessary to pay principal and interest falling due on revenue bonds previously authorized and the additional \$500 million revenue bonds proposed to be issued.

Alternatively, if voter approval is not obtained for future bond financing, the Rate Commission, after consideration of all of the facts and circumstances disclosed in these proceedings, finds and determines that the Rate Change Proposal to fund the capital improvement and replacement program with a combination of bond and cash financing provides for the funds necessary to pay principal and interest falling due on the revenue bonds previously issued as authorized in prior proceedings to finance the capital improvement and replacement program.

Second Criteria: Whether the Rate Change Proposal is necessary to pay the costs of operation and maintenance. See Charter Plan, § 7.040.

The Rate Commission, after discussion and consideration of all of the facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal provides the funds necessary to pay the costs of operation and maintenance.

Third Criteria: Whether the Rate Change Proposal provides for funds in such amounts to cover emergencies and anticipated delinquencies. See Charter Plan, § 7.040.

The Rate Commission, after discussion and consideration of all of the facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal provides for funds in such amounts as may be required to cover emergencies and anticipated delinquencies.

First Factor: Whether the Rate Change Proposal “is *consistent with constitutional, statutory or common law as amended from time to time.*” See Charter Plan, § 7.240.

The Rate Commission, after discussion and consideration of all of the facts and circumstances and the record presented in these Proceedings, finds and determines that the Rate Change Proposal is consistent with constitutional, statutory, and common law, as amended from time to time.

Second Factor: Whether the Rate Change Proposal “*enhances* the District’s ability to provide adequate sewer and drainage systems and facilities, or related services.” See Charter Plan, § 7.240.

The Rate Commission, after discussion and consideration of all of the facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal enhances the District’s ability to provide adequate sewer and drainage facilities or related services.

Third Factor: Whether the Rate Change Proposal “*is consistent* with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District.” See Charter Plan, § 7.240.

The Rate Commission, after discussion and consideration of all of the facts and circumstances disclosed in the record and presented in these Proceedings, finds and determines that the Rate Change Proposal is consistent with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District.

Fourth Factor: Whether the Rate Change Proposal “does not *impair* the ability of the District to comply with applicable *Federal or State laws* or regulations as amended from time to time.” See Charter Plan, § 7.240.

The Rate Commission, after discussion and consideration of all of the facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal does not impair the ability of the District to comply with applicable Federal and State laws or regulations as amended from time to time during this Rate Change Proposal cycle.

Fifth Factor: Whether the Rate Change Proposal “imposes a *fair and reasonable* burden on all classes of ratepayers.” See Charter Plan, § 7.240.

The Rate Commission, after discussion and consideration of all facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal does not result in rates that impose a fair and reasonable burden on all classes of ratepayers.

The Rate Commission, after discussion and consideration of all facts and circumstances disclosed in these Proceedings, finds and determines that the Rate Change Proposal modified with utilizing a minimum total debt service coverage ratio of 1.6x and with the proposed increases for extra strength surcharges phased in over at least a two-year period will result in rates that impose a fair and reasonable burden on all classes of ratepayers.

BACKGROUND

Metropolitan St. Louis Sewer District

Article VI, § 30(a) of the Missouri Constitution has authorized “[t]he people of the city of St. Louis and the people of the county of St. Louis ... to establish a metropolitan district or districts for the functional administration of services common to the area included therein” Mo. Const. art. VI, § 30(a). At a special election on February 9, 1954, the freeholders adopted and the voters of the City of St. Louis and St. Louis County approved the Charter Plan (as amended on November 7, 2000) creating the Metropolitan St. Louis Sewer District. The Charter Plan establishing the District has been held to be constitutional. State on inf. Dalton v. Metro. St. Louis Sewer Dist., 275 S.W.2d 225 (Mo. banc 1955).

The District is a body corporate, a municipal corporation, and a political subdivision of the state, with power to ... act as a public corporation within the purview of the Plan, and shall have the powers, duties, and functions as herein described. See Charter Plan, § 1.010. The Missouri Constitution provides that upon the adoption of the Charter 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.” Mo. Const. art. VI, § 30(b). As explained by the Missouri Supreme Court, “[t]he apparent intent is to give the freeholders, with the approval of the voters, power to do whatever the Legislature could ordinarily do with respect to the creation, organization and authority of such a district.” Dalton, 275 S.W.2d at 228.

As such, the Charter Plan is similar to legislation, and thus, the District has only such powers as are delegated to it by the Charter Plan, or as may properly be implied from the nature

of the duties imposed. State on inf. McKittrick v. Wymore, 132 S.W.2d 979, 987-988 (Mo. banc 1939).

To determine whether a certain action of the District is authorized by the Charter Plan, it must be construed to further the intent of the voters. Centerre Bank of Crane v. Dir. of Revenue, 744 S.W.2d 754, 759 (Mo. banc 1988). Intent must be ascertained by examining the plain language of the Charter Plan reviewed as a whole. Staley v. Dir. of Revenue, 623 S.W.2d 246, 248 (Mo. banc 1981).

It is clear that authorization was provided to residents in St. Louis City and County to establish a metropolitan sewer district, Mo. Const. art. VI, § 30(a), and that authorization was provided by the voters of St. Louis City and County to authorize the activities which carry out the intent expressed and implied from the Charter Plan, including the establishment of the Rate Commission.

The Rate Commission

The Rate Commission was established by the amendments to the Charter Plan approved by the voters at a general election on November 7, 2000, to represent commercial-industrial users, residential users and other organizations interested in the operation of the District, including by way of example but not by way of limitation, organizations focusing on environmental issues, labor issues, socio-economic issues, community-neighborhood organizations and other nonprofit organizations. See Charter Plan, § 7.230. The Rate Commission shall review and make recommendations to the Board regarding proposed changes in wastewater, stormwater, and tax rates. Specifically, upon receipt of a Rate Change Notice from the District, the Rate Commission is to recommend to the Board changes in a wastewater, stormwater, or tax rate necessary to pay (i) interest and principal falling due on bonds issued to

finance assets of the District; (ii) the costs of operation and maintenance; and (iii) such amounts as may be required to cover emergencies and anticipated delinquencies. See Charter Plan, § 7.040.

Any change in a rate recommended to the Board by the Rate Commission pursuant to § 7.270 of the Charter Plan is to be accompanied by a statement of the Rate Commission that the proposed rate change (i) is consistent with constitutional, statutory, or common law as amended from time to time; (ii) enhances the District's ability to provide adequate sewer and drainage systems and facilities, or related services; (iii) is consistent with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District; (iv) 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 (v) imposes a fair and reasonable burden on all classes of ratepayers.

Appointment

On September 14, 2017, the District enacted Board Ordinance No. 14800, as required by § 7.230 of the Charter Plan, and designated the Rate Commission Representative Organizations. The Ordinance designated: Associated General Contractors of St. Louis, St. Louis County Municipal League, Lutheran Senior Services, St. Louis Council of Construction Consumers, Greater St. Louis Labor Council, Missouri Botanical Garden, Mound City Bar Association, League of Women Voters of Metro St. Louis, Home Builders Association, North County Incorporated, Missouri Coalition for the Environment, the City of Ladue, Engineers Club of St. Louis, Missouri Industrial Energy Consumers, and Education Plus. Each of these Organizations designated an individual to serve as a Rate Commission Delegate and notified the Rate Commission. The Delegates currently comprising the Rate Commission are:

Commission Delegates	Representing
Paul Ziegler, Ed.	Education Plus
Mickey Croyle	League of Women Voters of Saint Louis
Paul Brockmann	Missouri Botanical Garden
Gerald Beckmann	St. Louis Council of Construction Consumers
Chan Mahanta	North County Incorporated
Leonard Toenjes	Associated General Contractors (AGC)
Brad Goss	Home Builders Association of St. Louis and Eastern Missouri
Lloyd Palans	City of Ladue
Don Bresnan	Greater St. Louis Labor Council
Tom Ratzki	The Engineers' Club of St. Louis
Brandy Bowdry	Mound City Bar Association
John L. Stein	Missouri Industrial Energy Consumers
Steve Mahfood	Missouri Coalition for the Environment
Mark Schoedel	Lutheran Senior Services
Russell Hawes	St. Louis County Municipal League

Under the Charter Plan, the Board is to identify the Rate Commission Representative Organizations for a term of years determined by the Board. See Charter Plan, § 7.230. Each Rate Commission Representative Organization selected by the Board shall have the right to designate a Rate Commission Delegate to the Rate Commission for a term of six years or the completion of any unexpired terms. See Charter Plan, § 7.240. This section continues, “[p]rior to the expiration of a Rate Commission Representative Organization’s term, the Board of Trustees shall designate

organizations within the District to succeed such Rate Commission Representative Organization.” See Charter Plan, § 7.240. Nothing bars a Rate Commission Organization from being named to successive terms. See Charter Plan, § 7.240.

Rate Commission’s Operational Rules

On August 16, 2001, and under the authority of §§ 7.250 and 7.280(e) of the Charter Plan, the Rate Commission adopted Operational Rules, Regulations and Procedures as amended on March 21, 2002, April 16, 2003, March 2, 2007, January 18, 2008, March 7, 2011, March 4, 2015, and February 26, 2018, to govern the activities of the Rate Commission. On March 4, 2019, the Rate Commission adopted the Restated Operational Rules, Regulations and Procedures of the Rate Commission of the Metropolitan St. Louis Sewer District.

Rate Commission’s Procedural Schedule

On March 8, 2019, the Rate Commission, under the authority of § 7.280(e) of the Plan and pursuant to § 3(3) of the Operational Rules, adopted a Procedural Schedule for the Consideration of a Wastewater Rate Change Notice.

Under the Charter Plan, the Rate Commission must issue its Rate Recommendation Report to the Board and the public no later than 120 days after receipt of a Rate Change Notice. See Charter Plan, § 7.280(f). As a result, the Recommendation Report for the Wastewater Rate Change would be due July 2, 2019. Section 7.280(f) of the Charter Plan, however, allows the Board, upon application of the Rate Commission, to extend the period of time for the issuance of the Rate Commission Report for one additional 45-day period. By correspondence dated March 5, 2019, the Rate Commission made such application to the Board, asking the deadline to be extended until August 16, 2019. The Board granted the request for an extension on March 14, 2019, and the Rate Commission Report is now due August 16, 2019.

Rate Commission's Proceedings

Under procedural rules adopted by the Rate Commission, any person who would be affected by the Rate Change Proposal has an opportunity to submit an application to intervene in the rate change proceedings. An application to intervene was granted for MIEC.

On March 4, 2019, the District submitted to the Rate Commission prepared Direct Testimony of Brian L. Hoelscher, Susan M. Myers, Richard L. Unverferth, Bret A. Berthold, Marion M. Gee, Tim R. Snoke, Bethany Pugh, William Stannard and Thomas A. Beckley.

On March 8, 2019, the Rate Commission submitted its First Discovery Request to the District. On March 13, 2019, the District filed its Responses.

On March 11, 2019, the Rate Commission submitted its Second Discovery Request to the District, which the District responded to on March 20, 2019.

On March 25, 2019, the Rate Commission submitted its Third Discovery Request to the District, which the District responded to on April 2, 2019.

On April 8, 2019, a Technical Conference was held on the record regarding the Rate Setting Documents and the Direct Testimony filed with the Rate Commission by the District. The purpose of the Technical Conference was to provide the District an opportunity to answer questions propounded by members of the Rate Commission; then by the Intervenor; and finally by Lashly & Baer, Legal Counsel to the Rate Commission.

On April 8, 2019, Intervenor Missouri Industrial Energy Consumers submitted its First Discovery Request to the District, which the District responded to on April 18, 2019.

On April 11, 2019, the Rate Commission submitted its Fourth Discovery Request to the District, which the District responded to on April 22, 2019.

On April 11, 2019, Intervenor Missouri Industrial Energy Consumers submitted its Second Discovery Request to the District, which the District responded to on April 22, 2019.

On April 23, 2019, the Rate Commission submitted Rebuttal Testimony of Pamela Lemoine, Prabha Kumar, and Nicole Young, and Intervenor Missouri Industrial Energy Consumers submitted Rebuttal Testimony of Michael Gorman.

On April 26, 2019, the District submitted its First Discovery Request to Intervenor Missouri Industrial Energy Consumers, to which Missouri Industrial Energy Consumers responded on May 7, 2019.

On May 9, 2019, a Technical Conference was held on the record regarding the Rebuttal Testimony. The purpose of the Technical Conference was to provide the Consultants to the Intervenor and the Rate Commission to respond to questions propounded by members of the Rate Commission, the District, the Intervenor, and Legal Counsel to the Rate Commission.

On May 14, 2019, the District submitted its Second Discovery Request to Intervenor Missouri Industrial Energy Consumers, to which Missouri Industrial Energy Consumers responded on May 24, 2019.

On May 14, 2019, the Rate Commission submitted its Fifth Discovery Request to the District, which the District responded to on May 24, 2019.

On May 16, 2019, Intervenor Missouri Industrial Energy Consumers submitted its Third Discovery Request to the District, which the District responded to on May 28, 2019.

On June 3, 2019, the District submitted Surrebuttal Testimony of Richard Unverferth, Tom Beckley, William Stannard, Marion Gee, Bethany Pugh and Tim Snoke. The Rate Consultants submitted Surrebuttal Testimony of Pamela Lemoine and Nicole Young. Intervenor Missouri Industrial Energy Consumers submitted Surrebuttal Testimony of Michael Gorman.

On June 20, 2019, a Technical Conference was held on the record regarding the Surrebuttal Testimony. The purpose of the Technical Conference was to provide the Consultants to the Intervenor and the Rate Commission to respond to questions propounded by members of the Rate Commission, the District, the Intervenor, and Legal Counsel to the Rate Commission.

On June 24, 2019, Intervenor Missouri Industrial Energy Consumers submitted its Fourth Discovery Request to the District, which the District responded to on July 3, 2019.

On June 24, 2019, Intervenor Missouri Industrial Energy Consumers submitted its First Discovery Request to the Rate Commission, which the Rate Commission responded to on July 5, 2019.

On June 25, 2019, the Rate Commission submitted its Sixth Discovery Request to the District, which the District responded to on July 3, 2019.

On June 25, 2019, the Rate Commission submitted its First Discovery Request to Intervenor Missouri Industrial Energy Consumers, which Intervenor responded to on July 2, 2019.

On July 12, 2019, a Prehearing Conference was held on the record to provide statements of the District, the Intervenor and Counsel to the Rate Commission and to answer questions of the Rate Commissioners.

On July 19, 2019, Prehearing Conference Reports were submitted by the District, the Rate Commission and Intervenor MIEC.

Ratepayers who did not wish to intervene were permitted to participate in a series of on-the-record public hearings conducted in six sessions beginning on May 8, 2018, and concluding on June 29, 2018. Specifically, public hearing sessions were held as follows:

Date	Location	Address	Time
May 14, 2019	St. Louis County Library Grant's View Branch	9700 Musick Road St. Louis, MO 63123	6:00 p.m.
May 22, 2019	Manchester Parks Recreation & Arts Center	359 Old Meramec Station Rd. Manchester, MO 63021	6:00 p.m. (online streaming)
June 4, 2019	The Heights	8001 Dale Avenue Richmond Heights, MO 63117	6:00 p.m.
June 27, 2019	Maryland Heights Community Center	2300 McKelvey Road Maryland Heights, MO 63043	6:00 p.m.
July 10, 2019	University of Missouri-St. Louis (UMSL) Wellness & Recreation Center	1 University Blvd. St. Louis, MO 63121	6:00 p.m.
July 24, 2019	Metropolitan St. Louis Sewer District	2350 Market Street St. Louis, MO 63103	9:00 a.m. (online streaming)

Public Notice regarding these Proceedings was published in the *St. Louis Post-Dispatch* on March 14, March 16, and March 17, 2018, and in the *St. Louis American* on March 15, 2018, by the Rate Commission. This Notice contained the time, dates and location of each of the conferences and hearings. In addition, the Rate Commission utilized a webpage, Twitter, Facebook and other social media in an effort to increase public involvement.

The public hearing session on July 24, 2019, was held for the purpose of (1) receiving into evidence any prepared testimony previously submitted to the Commission subject to any valid objections, together with the discovery responses and transcripts of the technical conferences; (2) permitting the Rate Commission members or those designated by the Rate Commission to ask questions regarding any issue addressed by the prepared testimony or any other element of the Proposed Rate Change; and (3) permitting closing statements by the District, any person who has been permitted to intervene, and Legal Counsel for the Rate Commission.

During the Proceedings, Exhibits and Discovery Requests and Discovery Request Responses were introduced and on July 24, 2019, were admitted into evidence. These

documents, together with the transcripts of testimony, written testimony, and certain other materials, may be found at <https://www.stlmsd.com/our-organization/msd-rate-commission/meetings-and-exhibits-FY2021-2024-Rate-Commission> and the Proceedings Index may be found at the end of the Report.

The findings and determinations contained in this Report were considered at public meetings of the Rate Commission on July 29, 2019, and August 5, 2019, and adopted by Resolution of the Rate Commission on August 12, 2019.

Statutory Construction

The primary rule of construction of terms found in the Charter Plan is to ascertain the intent from the language used, to give effect to that intent if possible, and to consider the words used in their plain and ordinary meaning. See Hampton v. Hampton, 17 S.W.3d 599, 602 (Mo. App. W.D. 2000). Under traditional rules of statutory construction, the word's dictionary definition supplies its plain and ordinary meaning. See Hoffman v. Van Pak Corp., 16 S.W.3d 684, 688 (Mo. App. E.D. 2000). The courts are without authority to read into a statute an interpretation that is contrary to the intent made evident by giving the language employed in the statute its plain and ordinary meaning. See Mo. Dept. of Pub. Safety v. Murr, 11 S.W.3d 91, 96 (Mo. App. W.D. 2000). Only when the statute is ambiguous, or when it leads to an illogical result, may courts look past the plain and ordinary meaning of the statute. Id. To determine if a statute is unambiguous, “the standard is whether the statute’s terms are plain and clear to one of ordinary intelligence.” See Wolff Shoe Co. v. Dir. of Revenue, 762 S.W.2d 29, 31 (Mo. banc 1988).

CRITERIA FOR RECOMMENDATION

The Rate Commission is to review and make recommendations to the Board regarding proposed changes in wastewater, stormwater or tax rates necessary to pay (i) interest and principal falling due on bonds issued to finance assets of the District; (ii) the costs of operation and maintenance; and (iii) such amounts as may be required to cover emergencies and anticipated delinquencies. See Charter Plan, § 7.040.

First Criteria: Whether the Rate Change Proposal is necessary to pay interest and principal falling due on bonds issued to finance assets of the District.

The District's Proposed Rate Change Proposal for a Wastewater Rate Change proposes a rate increase to generate an approximately 3.6% increase in revenues to finance approximately \$1.58 billion in needed improvements during FY 2021 through FY 2024. See Ex. MSD 1, pgs. ES-1 – ES-2. The District's Capital Improvement and Replacement Program (the "CIRP") is the primary driver of the District's financial plan, representing approximately two-thirds of anticipated expenditures during the rate cycle. See Ex. MSD 1, p. 4-15. The largest components of the CIRP over this period will be capital investment related to capacity improvements in the wastewater system, and sewage sludge incineration. Id. The CIRP includes improvements necessary to comply with the Consent Decree, with permit and regulatory requirements outside of the Consent Decree, and with asset management renewal at the treatment plants. Id.

The District proposes to finance these improvements by a combination of rate revenue and debt financing.² See Ex. MSD 1, p. 4-16. The District intends to use approximately \$587 million in rate revenue (approximately 37% of the total CIRP) with the remainder of the CIRP financed by a combination of grants, loans from the state revolving fund, and existing and additional bonding authority. See Ex. MSD 1, p. 4-17. A typical metered residential customer contributing 6 CCF of wastewater each month will experience a rate increase of approximately 3.3% each year from FY 2021 through FY 2024. See Ex. MSD 1, p. ES-5. The District intends to seek voter authorization prior to FY 2022 for an additional \$500 million of additional wastewater revenue bonds. See Ex. MSD 1, p. ES-2. If the voters do not approve additional bonding

² The Rate Change Proposal relies upon certain assumptions with respect to conditions, events, and circumstances that may occur in the future. Although considered reasonable, some of these anticipated conditions, events and circumstances may not occur resulting in potential differences in revenues and costs than currently projected.

authority, the District will need to finance the CIRP with 100% cash financing once its existing bonding authorization has been depleted. See Ex. MSD 1, p. 6-1. Rates would increase by approximately 15% in FY 2022, by 17% in FY 2023, and by 13% in FY 2024 if voters do not approve additional bonding authority. Id.

Revenue Bonds

The District was formed on February 9, 1954, when voters in the City of St. Louis and a portion of St. Louis County approved the Charter Plan to provide a metropolitan-wide system of stormwater treatment and facilities for the collection, treatment, and disposal of sewage. The Charter Plan was amended on November 7, 2000, and further amended on June 5, 2012.

Section 3.020. Powers of the District. – the District established under the provisions of this Plan shall have power:

...

To meet the cost of acquiring, constructing, improving, or extending all or any part of the sewer or drainage systems: (a) through the expenditure of any funds available for that purpose; (b) *through the issuance of bonds for that purpose, payable from taxes to be levied and collected by the District;* (c) *through the issuance of bonds for that purpose, payable from special benefit assessments levied and collected by the District;* (d) from the proceeds of special benefit assessments or bills evidencing such assessments; (e) from any other funds which may be obtained under any law of the state or of the United States for that purpose; (f) *from the proceeds of revenue bonds, payable from the revenues to be derived from the operation of sewerage and drainage facilities and systems of the entire District ... as may be set forth in propositions submitted at elections in the District ... from time to time called and held to authorize the issuance of such revenue bonds;* or (g) from any combination of any or all such methods of providing funds.

...

See Charter Plan, § 3.020(15) (emphasis added).

The Charter Plan requires an annual budget, an explanatory budget message, and a general appropriation ordinance conforming with the budget. The budget shall provide a

complete financial plan for the budget year for all District and subdistrict funds, and shall include the following:

- (1) Estimated revenues to be actually received from all sources during the budget year, together with a comparative statement of revenues for the two years next preceding, itemized by year, fund, and source.
- (2) Proposed expenditures, including projected expenses included in the Rate Commission's budget as provided in Section 7.260, recommended by the Executive Director for the budget year, together with a comparative statement of expenditures for the two years next preceding, itemized by year, fund, activity, and object.
- (3) The amount required for the payment of interest, amortization, and redemption charges on the debt of the District or any subdistrict.
- (4) A general budget summary.
- (5) A list of capital projects.

In no event shall the total amount of proposed expenditures for the budget year from any fund exceed the estimated revenues to be actually received plus any unencumbered balance or less any deficit estimated for the beginning of the budget year.

See Charter Plan, § 7.130 (emphasis added). Subject to these restrictions, the District has the authority to issue revenue bonds.

At the end of each fiscal year, the unexpended and unencumbered parts of all appropriations shall revert to the funds from which appropriated. See Charter Plan, § 7.050. Upon approval by the Board of Trustees, the Executive Director may transfer any unencumbered appropriation balances or portion thereof from one classification of expenditure to another. See Charter Plan, § 7.150. The District's authority to issue revenue bonds requires the approval of the voters of the District. Specifically, the Charter Plan provides:

No general obligation bonds, except bonds for refunding, advance refunding, extending, or unifying the whole or any part of valid bonded indebtedness, shall be issued without the assent of the voters of the District ... in the number required by Article VI, § 26(b) of the Constitution of Missouri (as amended from time to time), voting at an election to be held for that purpose. *No revenue bonds payable from the revenues to be derived from the operation of any or all sewer and drainage systems and facilities of the District ... except bonds for refunding, advance refunding, extending, or unifying the whole or any part of revenue bonds,*

shall be issued without the assent of a simple majority of the voters of the District ... voting at an election to be held for that purpose. Notwithstanding anything herein to the contrary, the District is expressly authorized to issue District-wide general obligation and revenue bonds.

See Charter Plan, § 7.170 (emphasis added).

The Missouri Supreme Court has expressly recognized this authority, stating, “[t]he other powers objected to, namely, ... incurring debts, ... issuance of tax anticipation warrants, ... and issuance of bonds, ... are essential powers of such district.” See State on inf. Dalton v. Metro. St. Louis Sewer Dist., 275 S.W.2d 225, 231 (Mo. banc 1955). The court continued, “[w]ithout the power to incur debts and issue bonds, adequate drains, sewers and disposal plants could not be constructed. However, in the exercise of this power, the District is subject to the financial limitations imposed by the Constitution on all government subdivisions.” Id.

Outstanding Revenue Bonds

Revenue bonds do not rely upon the general credit or tax money of the District and do not constitute indebtedness of the District within the limitations of Charter Plan § 7.190 or Article VI, § 26(b) of the Missouri Constitution. Under the authority of Mo. Rev. Stat. § 250.120.1 (2016), once the voters have approved revenue bonds, the District has authority to raise wastewater and stormwater rates to pay principal and interest on the bonds and to meet the costs³ of maintenance and operation of the facilities.

On April 22, 2004, the Board of Trustees issued its first revenue bonds under the terms of a Master Bond Ordinance.

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

³ District “costs” are based on various levels of estimates.

sufficient at all times to pay annual operation and maintenance (“O&M”) 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. See Ex. MSD 14, § 6.1.

Additional senior revenue bonds have been issued in 2006, 2008, 2010, 2011, 2012, 2013, 2015, 2016 and 2017. See Ex. MSD 1, p. 4-18. Supplemental Bond Ordinances authorized by the Board of Trustees relating to additional revenue bond issues include the same covenants. See Exs. MSD 15 through 36. The principal remaining on all of the District’s senior revenue bonds issued to date is approximately \$1.2 billion as of June 30, 2018. The District has also participated in multiple subordinate series of revenue bonds issued under the Missouri State Revolving Fund loan program. The total amount of principal remaining on all of the District’s State Revolving Fund loans issued to date is approximately \$423 million as of June 30, 2018. See Ex. MSD 1, p. 4-18.

A consideration in measuring the adequacy of District revenues is the provision of sufficient debt service coverage to meet the actual debt service paid to the bondholders on the senior revenue bonds and on the State Revolving Fund loans. The debt service coverage of the senior revenue bond debt service, i.e., the ratio of net revenue to total senior revenue bond debt service for each year of the study period shows the debt service coverage of the combined senior revenue bond and State Revolving Fund debt service (i.e., the ratio of net revenue to total debt service for each year of the study period). Current wastewater revenue bond covenants require the District to provide debt service coverage equal to at least 125% (>1.25x) of the

annual principal and interest payment on all senior revenue bonds and 115% (>1.15x) of the combined annual principal and interest payment on all wastewater senior revenue bonds and all State Revolving Fund loans. See Ex. MSD 1, p. 4-24.

Moody's Investors Services assigned a credit rating of Aa1 to the District's 2017A revenue bond obligations on November 17, 2017. See Ex. MSD 39. Fitch Ratings assigned a rating of AA+ on November 21, 2017, to the District's Series 2017A revenue bond obligations. See Ex. MSD 40. Standard & Poor's Ratings Service assigned a rating of AAA on November 15, 2017, to the District's Series 2017A revenue bond obligations. See Ex. MSD 38.

The rating agencies have each noted that the District's current credit rating could be compromised if projected senior debt service coverage fell below the 2.4x to 2.9x range and projected total debt coverage fell below the 1.6x to 1.8x range. The Rate Proposal is designed to maintain a senior debt service coverage ratio of at least 2.50x over the Rate Proposal period. See Ex. MSD 3G, p. 5, ll. 3-6. See also Ex. MSD 3F, p. 7, ll. 18-22; Ex. MSD 68, p. 286, ll. 8-20; Ex. MSD 68, p. 293-94, ll. 4-5 & 1; Ex. MSD 67A, p. 3.

Proposed Revenue Bonds

The Rate Change Proposal is designed to generate debt service coverage for proposed revenue bonds consistent with rating agencies' expectations for "AA" rated large metropolitan wastewater systems. See Ex. MSD 3G, p. 5, ll. 3-23; p. 6, ll. 1-12. The District's CIRP projects are primarily funded by the issuance of senior revenue bonds and State Revolving Fund loans while the smaller remaining work is on a cash-funded basis (Pay As You Go). Debt financing of the majority of the CIRP allows the financing burden to be appropriately shared by both present and future users benefiting from the wastewater system improvements. Capital improvements routinely incurred each year as determined by the District's comprehensive asset management

program are more appropriately financed with Pay As You Go revenue generated from annual wastewater service revenue. See Ex. MSD 1, p. 4-16; see also Ex. MSD 3E, p. 4, ll. 1-8.

New senior revenue bonds with a total par value of \$785 million and \$120 million in additional State Revolving Fund loans are expected to be issued between FY 2021 and FY 2024 to provide this funding. This will require the District to obtain voter approval for authorization of \$500 million of additional debt financing prior to FY 2022. The District plans to take advantage of the State Revolving Fund loan program but expects to be limited to \$30 million each year from FY 2021 through FY 2024. In total, cash financing is expected to fund 37% of the total CIRP between FY 2021 and FY 2024. See Ex. MSD 1, p. 4-17.

The District anticipates receiving grants and contributions of \$2.9 million between FY 2021 and FY 2024. Id.

The projected amortization of future revenue bond issues determined by PFM, the District's financial advisor, is based on current market conditions and certain assumptions regarding future market conditions. Proposed revenue bond issues will be governed by supplemental bond ordinances incorporating the bond covenants set forth in the Master Bond Ordinance. Generally, future senior revenue bonds are assumed to have a 30-year term and annual coupon rates between 5.0% and 5.5%. Future State Revolving Fund loans issued to fund the CIRP are expected to have 20-year terms and a net effective annual interest and administration cost of about 3% per year. In addition to the interest cost of future debt, the District will incur issuance costs with each senior revenue bond issue and State Revolving Fund loan, and be required to maintain a debt service reserve fund for the senior revenue bonds. The issuance costs for senior revenue bonds are estimated at 1.0% of the total issuance amount.

Issuance costs for State Revolving Fund loans are expected to be 0.65% of the total State Revolving Fund loan amount. See Ex. MSD 1, p. 4-18.

Based on these assumptions, the total annual debt service during the forecast period for existing debt and future proposed debt is expected to increase from \$115.6 million in FY 2019 to \$177.0 million in FY 2024. See Ex. MSD 1, p. 4-19. The Missouri Supreme Court has specifically held that the issuer of revenue bonds for the operation and maintenance of a sewage system had the authority to raise water and sewage rates, not only to pay principal and interest in revenue bonds issued for the purpose of construction of a water treatment plant and water transmission lines, but also to meet the cost of maintenance and operation of the physical plan itself. See Oswald v. City of Blue Springs, 635 S.W.2d 332, 333-34 (Mo. banc 1982). Moreover, once the voters have approved the bonds, such increases may be made without again submitting the increase to the voters. Id. at 334. Under Oswald, approval of the Rate Change Proposal is not required to meet existing bond covenant requirements on revenue bonds previously authorized by the voters.

Missouri State Revolving Fund

The “Missouri Clean Water Law” is designed to meet the requirements of the Federal Clean Water Act of 1987 (the “Act”); 33 U.S.C. §§ 125-1376. See Mo. Rev. Stat. § 644.011 (2016). It also establishes the Missouri Clean Water Commission (the “Commission”), which is required to adopt rules and regulations to enforce the powers and duties of Chapter 644 and the Act. See Mo. Rev. Stat. §§ 644.021, 644.026 (2016). The Missouri Code of State Regulations sets forth the general requirements for the implementation of Title VI of the Act, which authorizes the administrator of the EPA to make capitalization grants to states to fund financial assistance programs authorized by Title VI of the Act. See 10 CSR 20-4.021.

The Missouri State Revolving Fund Program is a partnership between the EPA and the Missouri Department of Natural Resources (the “Department”), and provides subsidized low interest rate loans to qualifying applicants.

In Missouri, the Clean Water State Revolving Fund Program consists of the Water and Wastewater Loan Fund (“WWLF”) and the Water and Wastewater Revolving Loan Fund (“WWRLF”) and those accounts secured by funds from the WWLF and the WWRLF. 10 CSR 20-4.040(2)(P). The State Revolving Fund is subject to the requirements, restrictions, and eligibilities placed on the State Revolving Fund by the Act. Id. The State Revolving Fund also funds the State Direct Loan Program (“Direct Loans”). See 10 CSR 20-4.041.

The Department may make Direct Loans by purchasing the general obligation bonds, revenue bonds, short-term notes or other acceptable obligations of any qualified applicant for the planning, design, and/or construction of an eligible project. See 10 CSR 20-4.041(1). These loans shall not exceed the total eligible project cost. Id.

Direct Loans are funded from State Revolving Fund loan repayments of federal capitalization grants. See 10 CSR 20-4.041(3). The Department purchases the revenue bonds, general obligation bonds, or other acceptable debt obligations from the recipient no later than six months following the initial operation of the facilities constructed by the project or by the closing deadline contained in the construction loan agreement, whichever is earlier. See 10 CSR 204.041(8). In addition, the Department may require the recipient to include those assurances and clauses in the loan agreements and bond resolutions as deemed necessary to protect the interest of the state. Id.

Under the Direct Loan Program, the bonds, notes or other debt obligations shall be fully amortized in no more than 20 years after initiation of operation and the payment frequency shall

be no less than annually with the first payment no later than one year after the initiation of operation. See 10 CSR 20-4.041(9). Repayment of principal shall begin no later than one year after initiation of operation and if at any time during the loan period the facility financed through a Direct Loan is sold, either outright or on contract for deed, to an entity other than a political subdivision of the state, the loan becomes due and payable upon transfer. Id.

Cash/Debt Ratio and Debt Service Coverage

It is the District's position that the proposed rate change is necessary to "balance the use of debt financing and current wastewater user charge revenue to simultaneously fund a wastewater improvement and replacement program needed to meet anticipated regulatory requirements and minimize the impact on customer monthly bills to the extent possible." See Ex. MSD 3E, p. 4, ll. 7-10. Tim Snoke testified that the District's proposal "is an outcome of the many factors being balanced to fully fund MSD operations and the CIRP in a way that minimizes rate increases and adheres to MSD actual financial policies..." See Ex. MSD 80F, p. 5, ll. 9-20.

When asked how the debt service coverage targets were developed, Bethany Pugh stated "[p]rojected minimum coverage targets of 2.5x and 1.8x have been identified as the optimal coverage levels needed to maintain AA level bond ratings, thereby ensuring cost effective market access for the District's large capital program." See Ex. MSD 3G, p. 5, ll. 8-11.

Michael P. Gorman, testifying on behalf of Missouri Industrial Energy Consumers ("MIEC"), recommends a modification to the amount of cash or Pay As You Go funding for the CIRP during the next rate cycle from FY 2021 through FY 2024. See Ex. MSD 79, p. 39, ll. 16-25; p. 40, ll. 1-25; p. 41, ll. 1-3. Mr. Gorman believes a 40/60 cash/debt ratio relies too heavily on rate revenue and that the District should consider a funding policy closer to 25/75 cash/debt ratio. See Ex. MSD 91, p. 192, ll. 7-10.

It is Mr. Gorman's position that the District's proposed funding mix is a change to District or Rate Commission Policy and that the change is unnecessary and should remain consistent. See Ex. MIEC 73, p. 3, ll. 12-13.

In addition, MIEC suggests that the District should target a minimum total debt service coverage of approximately 1.6x to be consistent with past rate proceedings. See Ex. MIEC 73, p. 9, ll. 17-22. Mr. Gorman agrees with the District that a reassessment of the debt service coverage and funding mix are warranted, but he does not agree that a shift in the debt service coverage is necessary. It is Mr. Gorman's opinion that the minimum total debt service coverage ratio should be maintained at 1.6x because the District's proposed changes are not needed to support its bond rating and maintain access to capital. See Ex. MIEC, p. 3, ll. 15-17.

Pamela R. Lemoine, Rate Consultant to the Commission, states that: (i) the District's proposed issuance of revenue bonds and state revolving loan bonds to finance a substantial portion of the Capital Improvement and Replacement Program is a sound capital financing approach; and (ii) financing the Capital Improvement and Replacement Program from a mix of long-term debt and cash financing is reasonable, and helps spread the cost of improvements to help pay for the improvements. In addition, bond rating agencies favorably view a meaningful amount of cash financing of a utility's capital program. Ms. Lemoine believes that the District's proposal of approximately 37% cash financing is consistent with the 25% to 30% cash financing of capital that is deemed an industry accepted best practice. The District's proposed financing plan, assuming that voters authorize the District to issue additional bonds, will help minimize the impact of the Capital Improvement and Replacement Program on wastewater rates during the projected four-year planning period. See Ex. RC 70, pgs. 13-14, ll. 15-23 & 1-6.

Ms. Lemoine observes that the District's Rate Change Proposal requires substantial additional debt to be incurred over a short period of time, with continued issuance of debt in FY 2021 through FY 2024 and beyond in order to continue to fund the projects required by the Consent Decree. While the District's proposal provides for debt service coverage well over the minimum required by the District's bond covenants, the District's proposal indicates projected debt service coverage declining to the District's minimum policy level by FY 2024. She expresses concern given that the Rate Proposal results in debt service coverage reaching the District's minimum policy levels by FY 2024 and any unforeseen impact to revenue generation and/or expenditures relative to the assumptions used in the development of the Rate Change Proposal could pose a risk of coverage levels dropping lower than the District's minimum policy level. Id. at p. 14, ll. 16-23; p. 15, ll. 1-6.

Ms. Lemoine considers the District's policy to maintain senior debt service coverage of 2.5 times or greater and total debt service coverage of 1.8 times or greater is a valid and important metric, particularly in light of the District's current and anticipated future heavy debt profile. Id. at p. 21, ll. 2-4.

Available cash balances are a very important element of a wastewater utility's financial plan. Adequate fund balances are necessary to ensure adequate working capital and funds for unanticipated events. Table 4-10 of the District's Rate Proposal (Ex. MSD 1A, p. 4-23, ll. 24) presents the District's forecasted combined operating reserve. As shown, the District projects that at the end of FY 2024 there will be a balance of \$49,871,963 in Combined Operating Reserves, equating to approximately 89 days of operation and maintenance expenses. This is consistent with the targets of other wastewater utilities and provides the District with adequate

working capital to provide for any unanticipated expenditures or emergencies. Id. at p. 21, ll. 7-14.

It is the overall position of the Rate Commission that the cash/debt mix is adequate to pay the interest and principal falling due on bonds issued to finance assets of the District, and meets the standard set forth in the Charter. Similarly, the Rate Commission finds that the debt service coverage ratio used in the Rate Change Proposal is appropriate to provide funds necessary to pay the interest and principal falling due on the bonds issued by the District, and thus meets the standard set forth in the Charter.

However, the Rate Commission notes that the cash/debt mix may actually be excessive and recommends that the District consider a longer term plan on long-term debt. The Rate Commission is concerned that authorizing additional bonds while the District has not expended the amount already authorized will impact future potential ratings and future generations of District customers. The Rate Commission finds that the District's proposed total debt service coverage ratio is not the optimal ratio. The Rate Commission strongly suggests the Board of Trustees take into consideration the long-term outlook of the District. The Rate Commission suggests taking a long view of debt financing over a 10 to 20 year period to guide future four year rate cycles.

The Rate Commission believes that the evidence found in this record supports a finding that the Wastewater Rate Change Proposal is necessary to pay interest and principal falling due on bonds issued to finance assets of the District.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL TO FUND THE CAPITAL IMPROVEMENT AND REPLACEMENT PROGRAM WITH A COMBINATION OF BOND AND CASH FINANCING PROVIDES FOR THE FUNDS NECESSARY TO PAY PRINCIPAL AND INTEREST FALLING DUE ON REVENUE BONDS PREVIOUSLY AUTHORIZED AND THE ADDITIONAL \$500 MILLION REVENUE BONDS PROPOSED TO BE ISSUED.⁴

ALTERNATIVELY, IF VOTER APPROVAL IS NOT OBTAINED FOR FUTURE BOND FINANCING, THE RATE COMMISSION, AFTER CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL TO FUND THE CAPITAL IMPROVEMENT AND REPLACEMENT PROGRAM WITH A COMBINATION OF BOND AND CASH FINANCING PROVIDES FOR THE FUNDS NECESSARY TO PAY PRINCIPAL AND INTEREST FALLING DUE ON THE REVENUE BONDS PREVIOUSLY ISSUED AS AUTHORIZED IN PRIOR PROCEEDINGS TO FINANCE THE CAPITAL IMPROVEMENT AND REPLACEMENT PROGRAM.

⁴ Please see page 120 of this Report for Minority Report of Commissioner Palans on the Amount of Bonding Proposed.

Second Criteria: Whether the Rate Change Proposal is necessary to pay the costs of operation and maintenance.

The District's current wastewater rate structure consists of monthly service charges and volume charges applicable to all District customers. All non-residential customers are also assessed a compliance charge and extra strength charges where applicable. The monthly service charges include a billing and collection charge and a system availability charge. A volume charge is assessed to all customers based on their respective water usage. Water usage information is provided by customers' respective water provider on either a metered or unmetered basis. Non-residential customers are also assessed one of five tiered compliance charges based on the amount of inspection and testing of wastewater needed to comply with current regulations. Extra strength surcharges are applied to monitored non-residential customers generating excess biochemical oxygen demand, chemical oxygen demand, and total suspended solids. See Ex. MSD 1, p. 4-1.

A summary of the financial plan showing projected wastewater revenues and wastewater revenue requirements for the District during the forecast period is presented in Table 4-10 of Exhibit MSD 1 which shows projected wastewater user charge revenue that is required in order to balance the revenue requirements through FY 2024. The increase shown for each year was selected based on consideration of three principal criteria:

- (i) Total revenue necessary to meet cash requirements for normal wastewater operations. This includes consideration of a one-month lag in the receipt of additional user charge revenue from increased rates;
- (ii) Annual increases in wastewater revenues available to cash finance a portion of the wastewater utility related major capital improvements; and
- (iii) Wastewater revenue required to meet certain financial metrics, based on comments from the District's rating agencies, including debt service coverage levels and strong liquidity position over the Rate Proposal period.

See Ex. MSD 1, p. 4-22. Total Revenue is projected to be \$411.8 million in FY 2019 and increase to \$517.2 million in FY 2024. This represents an overall annual compound increase of 5.3% during this time period. Id.

Wastewater Operating Reserve. The operating reserve is a balance maintained to accommodate fluctuations in annual revenues and expenditures. The District has a minimum operating reserve target equal to 60 days of annual operating expenses. The existing revenue bond covenants require the District to maintain a minimum balance equal to 45 days of Operation and Maintenance expense. The self-imposed 60-day minimum provides a buffer to allow for potential timing issues involved with funding requirements, provide increased operational flexibility, and helps support future bond ratings. The wastewater operating reserve is projected to exceed the minimum balance during the period FY 2021 to FY 2024. Figure 4-5 presents the estimated balance in the wastewater operating reserve throughout the forecast period. See Ex. MSD 1, p. 4-19. See also Ex. MSD 3I, p. 5-6, ll. 21-24 & 1-2.

Customer Accounts. The District's ratepayers are classified into three customer classes: single family, multi-family and non-residential. The District's wastewater revenue reflects the assessment of the specific rate components for each customer class. Id.

The historical and projected average number of wastewater customers served by the District are provided in Figure 4-1 and Table 4-2 of Exhibit MSD 1. The projected change in the number of customers is based on a 10-year average historical trend using a US Census based cohort-component methodology. As indicated in Table 4-2, the number of total customer accounts increased by 0.83% between FY 2013 and FY 2018. Based on this trend, the number of customer accounts is projected to increase by 0.1% annually throughout the forecast.

Projected Wastewater Revenues. Estimated revenues for FY 2021 through FY 2024 use FY 2020 approved rates. The District's historical wastewater revenue for FY 2017 and FY 2018 is based on actual rates, customer account and usage data. Projected revenue from wastewater user charges is based on projected customer demands and the rates approved through FY 2020 (revenue in FY 2021-FY 2024 assumes no changes in the approved rates for FY 2020). The wastewater user charge revenue under existing rates increased from \$440.9 million in FY 2020 to a projected \$444.8 million in FY 2024. This change is due to a combination of key factors: approved rate increases, the impact of economic conditions, projected fluctuations in excess strength wastewater revenue due to more extensive pre-treatment programs and projected decreases in wastewater volume consistent with historical trends. As customer volumes continue to decline over the projection period, the revenue would be expected to decline as well. See Ex. MSD 1, p. 4-8.

Wastewater Operation and Maintenance Expense. On April 22, 2004, the Board of Trustees issued revenue bonds under the terms of a Master Bond Ordinance which obligated the District to provide revenues sufficient to fund 100% of the expenses of operation and maintenance and for the accumulation of a reasonable operating reserve. See Ex. MSD 14, § 6.1.1.

The revenue needed to support the Operations wastewater system must be sufficient to meet its cash requirements. The District's operating revenue requirements consist of the following: (i) total wastewater system Operations and Maintenance expenses; (ii) expenditures for routine capital improvements; (iii) components of the CIRP funded directly from revenues; (iv) wastewater revenue bond debt service; and (v) a minimum 60-day operating reserve. See Ex. MSD 1, p. 4-12.

A summary of projected wastewater Operations and Maintenance for FY 2017 through FY 2024 is presented in Table 4-6 of Exhibit MSD 1. Future wastewater operation and maintenance expense is projected to increase from \$184.6 million in FY 2019 to \$211.3 million in FY 2024. See Ex. MSD 1, p. 4-13.

The District asserts that the single digit increases in wastewater rates are necessary for FY 2021 through FY 2024 to provide the revenue to perform operations, maintenance, and construction activities required to comply with the Clean Water Act as well as other regulatory requirements. See Ex. MSD 3A, p. 2, ll. 3-6. Wastewater operations and maintenance expenses for FY 2021 through FY 2024 are projected to be \$786 million, or 89% of the total District operating expenses of \$881.3 million the time period (\$95 million is attributable to stormwater).

Exhibit MSD 1 (Rate Proposal), Section 7.3 Performance Metrics, page 7-97 through 7-99 provide a number of performance metrics, comparing the District with peers using benchmark metrics from the 2018 AWWA Utility Benchmarking Survey for Wastewater Facilities. Section 7.3.1 provides operational benchmarks, and indicates that the District performs well in comparison to peers. Specifically, this Section notes that collection operations and maintenance cost of wastewater services is higher for the District than median. Treatment operations and maintenance cost of wastewater services is significantly lower than median. Energy consumption is slightly below median. Section 7.3.1 includes other benchmark metrics as well. Id. Wastewater Operation and Maintenance expenses are funded through wastewater user charges, engineering fees, waste hauler permits, connection fees, interest income and other miscellaneous revenues. Wastewater user charges also fund debt service expenses, a portion of the CIRP and necessary reserves. See Ex. MSD 3E, p. 5, ll. 3-12.

Bret Berthold testified on behalf of the District that the “Rate Change Proposal provides the funds needed to continue adequate O&M in the collection systems, pump stations, and wastewater treatment plants. The [Capacity, Management, Operation and Maintenance] program should continue to improve the operations of the collection system and reduce overflows and basement backups. This Rate Change Proposal will also allow for our aging treatment plants to continue to operate efficiently and meet permit requirements.” See Ex. MSD 3D, p. 4, ll. 11-15.

Pamela R. Lemoine, Rate Consultant to the Rate Commission, testified that the District’s projected costs to provide wastewater service and complete anticipated capital projects required under the Consent Decree over the Rate Proposal period appear to be reasonable and are projected to provide the District with adequate funding to maintain the financial health of the utility. The District has proposed wastewater rates based on cost of service principles that are commonly used in the industry, as outlined in the Water Environment Federation’s Manual of Practice No. 27, “Financing and Charges for Wastewater Systems.” See Ex. RC 70, p. 11, ll. 5-13.

There was no evidence presented that the District Rate Change Proposal would not provide the funds necessary to pay the costs of operations and maintenance.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL PROVIDES THE FUNDS NECESSARY TO PAY THE COSTS OF OPERATION AND MAINTENANCE.

Third Criteria: Whether the Rate Change Proposal provides for funds in such amounts to cover emergencies and anticipated delinquencies.

Proposed Wastewater Capital Funding. The Rate Change Proposal presents the District's proposed use of \$539 million of debt financing pursuant to its existing \$900 million debt financing authority, an additional \$366 million of additional debt under a new \$500 million authorization, and \$550 million in cash financing to fund its Wastewater Capital Improvement and Replacement Program through FY 2024 to provide the funds needed to comply with regulatory requirements relating to deficiencies in the District's wastewater system including sewers, pump stations and treatment plants and to satisfy the requirements of the Consent Decree. See Ex. MSD 3F, p. 2, ll. 4-9.

The District proposes to finance the required capital improvements by a combination of wastewater user charge revenues, available fund balances, revenue bond proceeds, Missouri Clean Water State Revolving Fund loan proceeds, potential commercial paper proceeds, grants and contributions, other operating revenues, and interest income. See Ex. MSD 1, p. 4-17.

Proposed Wastewater Operations and Maintenance Funding. The District's current wastewater rate structure consists of monthly service charges and volume charges applicable to all District customers. All non-residential customers are also assessed a compliance charge and extra strength charges where applicable. The monthly service charges include a billing and collection charge and a system availability charge. A volume charge is assessed to all customers based on their respective water usage. Water usage information is provided by customers' respective water provider on either a metered or unmetered basis. Non-residential customers are also assessed one of five tiered compliance charges based on the amount of inspection and testing of wastewater needed to comply with current regulations. Extra strength surcharges are

applied to monitored non-residential customers generating excess biochemical oxygen demand, chemical oxygen demand, and total suspended solids. Id. at p. 4-1.

Days Cash on Hand. Days Cash on Hand is a liquidity metric that measures an entity's ability to meet short-term needs and contingencies. Days Cash on Hand is calculated by dividing cash and relatively liquid investments by operating expenses (less depreciation) and then dividing by 365 days. The District's financial planning model was developed to ensure a minimum of 550 Days Cash on Hand. See MSD 3F, p. 6, ll. 15-19.

Wastewater Operating Reserve. The operating reserve is a balance maintained to accommodate fluctuations in annual revenues and expenditures. The District has a minimum operating reserve target equal to 60 days of annual operating expenses. The existing revenue bond covenants require the District to maintain a minimum balance equal to 45 days of Operations and Maintenance expense. The self-imposed 60 days minimum provides a buffer to allow for potential timing issues involved with funding requirements, provide increased operational flexibility, and helps support future bond ratings. The wastewater operating reserve is projected to exceed the minimum balance during the period FY 2021 to FY 2024. Figure 4-5 presents the estimated balance in the wastewater operating reserve throughout the forecast period. See Ex. MSD 1, p. 4-19; see also Ex. MSD 3I, p. 5-6, ll. 21-24 and 1-2.

Wastewater Cash Balances. Available cash balances are a very important element of a wastewater utility's financial plan. Adequate fund balances are necessary to ensure adequate working capital and funds for unanticipated events. Table 4-10 of the District's Rate Proposal (Ex. MSD 1) presents the District's forecasted Operating Reserve. As shown, the District projects that at the end of FY 2020 there will be a balance of \$49,871,963 in Operating Reserves, equating to approximately 89 days of Operation and Maintenance expenses. This is consistent

with the targets of other wastewater utilities and provides the District with adequate working capital to provide for any unanticipated expenditures or emergencies. See Ex. RC 70, p. 21, ll. 7-14.

Collection of Unpaid Wastewater Charges. The District, as a public sewer district created and authorized pursuant to constitutional authority, may discontinue service and place a lien upon a customer's property for unpaid sewer charges. This lien will have priority and be enforced in the same way as taxes are levied for state and county purposes. Mo. Rev. Stat. § 249.255 (2016).

The District may “establish by ordinance a schedule or schedule of rates, rentals, and other charges, to be collected from all the real property served by the sewer facilities of the District ... and to collect or enforce collection of all such charges.” See Charter Plan, § 3.020 (16).

In 1957, the Board of Trustees of the District adopted an Ordinance providing that:

Whenever a sewer service charge has been delinquent for more than sixty days the Executive Director may cause a notice of lien for non-payment thereof to be filed in the Office of the Recorder of Deeds within and for the City of St. Louis or St. Louis County, as the case may be. Such notice of lien shall state the amount of the delinquent sewer service charge, and shall properly describe the property against which such lien is asserted. Upon the filing of such notice, such sewer service charge shall be and become a lien upon the real property served to the amount of such delinquent bill, and shall have priority over all other liens except taxes, deeds of trust then of record, and prior judgments.

District Ordinance 138 (June 24, 1957).

The District has the authority to impose and enforce a lien upon the real property of a customer for the failure to pay sewer charges. See St. Louis Inv. Prop., Inc. v. Metro. St. Louis Sewer Dist., 873 S.W.2d 303 (Mo. App. E.D. 1994). The Missouri Revised Statutes provides that should a public sewer district place a lien upon a customer's property for unpaid sewer charges,

the lien shall have priority and be enforced in the same manner as taxes levied for state and county purposes. Mo. Rev. Stat. § 249.255.1 (2016). Prior to 1991 and the enactment of Section 249.255, no Missouri Statute or District ordinance gave the District's sewer liens priority over deeds of trust. St. Louis Inv. Prop., Inc., 873 S.W.2d at 307. Pursuant to Section 249.255, District liens are applied prospectively and do not have priority over deeds of trust recorded prior to the enactment of Mo. Rev. Stat. § 249.255.1 (2016) on May 29, 1991. See Gershman Inv. Corp. v. Duckett Creek Sewer Dist., 851 S.W.2d 765, 769 (Mo. App. E.D. 1993). However, any liens imposed after 1991 have the same priority and are enforced in the same manner as taxes levied for state and county purposes. See Mo. Rev. Stat. § 249.255.1 (2016).

Customer Assistance Charges. The District provides a 50% discount on wastewater charges for low-income residential customers participating in the District's Customer Assistance Program ("CAP") based on established District policy. The current customer participation is approximately 4,200 customer accounts or 1% of the District's total number of single family and multi-family (up to 6 units) ratepayers. Figure 4-8 shows the historical 5-year trend in the program. See Ex. MSD 1, p. 4-38.

The first CAP rate was adopted by the Board of Trustees in 1993 by Ordinance 9031. Since that time numerous changes have been made to the program to remain current with the changing demographics of District ratepayers. Current policy defines Customer Assistance Program eligibility as residential customers with household income for the previous year less than 200% of the most recent Health and Human Services poverty guidelines by household size and less than 250% for disabled individuals or those ages 62 or older. The District expanded the eligibility criteria to include Multi-Family residential customers residing in Multi-Family housing consisting of six units or less. In November 2014, the District Board of Trustees

approved a one-time 50% reduction in any outstanding service charges for those accepted into the program. These changes were made to assist the District's continued efforts to increase the number of customers participating in the program. Considerable focused outreach efforts are also a significant component of promoting the Customer Assistance Program. Id. at p. 4-39. The cost impact of the District's current CAP on a typical single family residential customer not eligible for assistance and discharging 6 Ccf per month of wastewater is expected to be about \$0.25, or 0.43% per month of the District's FY 2021 wastewater service charge revenue. The impact of the change in eligibility requirements is expected to increase participation in subsequent years as the District continues to actively promote this program and increase the number of qualified low-income customers. Id. Several comments were made at public hearings regarding customer assistance. The Rate Commission encourages the District to make every possible effort to inform the public of the availability of the CAP program and the services it provides.

The Rate Change Proposal has been set to achieve minimum debt coverage ratios of 2.50x (senior bonds) and 1.80x (total bonds), a minimum days Cash on Hand target of 550 days, and a minimum Operating Reserve of 60 days. See Ex. MSD 3F, p. 7, ll. 17-22. "Days cash on hand is a liquidity metric that measures an entity's ability to meet short-term needs and contingencies. Days cash on hand is calculated by dividing cash and relatively liquid investments by operating expenses (less depreciation) and then dividing by 365 days." See Ex. MSD 3G, p. 6, ll. 16-19. A bad debt provision equal to the projected base charge and volume charge revenue growth from FY 2020 to FY 2024 has been applied to the FY 2019 bad debt expense budget to compensate for a potential decrease in the collection rate due to rate increases. See Ex. MSD 3E, p. 4, ll. 18-23. The testimony of Bethany Pugh of PFM notes that

the Moody's Water and Sewer Utilities US 2019 outlook report on December 5, 2018 states that the 2019 outlook is stable, and that "'Liquidity will likely top a median of 450 days cash on hand in 2019, a very healthy level.'" See Ex. MSD 3G, p. 7, ll. 2-10.

The District Rate Change Proposal states that the "operating reserve is a balance maintained to accommodate fluctuations in annual revenues and expenditures. The District has a minimum operating reserve target equal to 60 days of annual operating expenses. The existing revenue bond covenants require the District to maintain a minimum balance equal to 45 days of O&M expense. The self-imposed 60 day minimum provides a buffer to allow for potential timing issues involved with funding requirements, provide increased operational flexibility, and helps support future bond ratings. The [Wastewater] operating reserve is projected to exceed the minimum balance throughout the forecast period [FY 2021 – FY 2024]." See Ex. MSD 1, p. 4-19.

There was no evidence presented that the District Rate Change Proposal would not provide the funds necessary to cover emergencies and anticipated delinquencies.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL PROVIDES FOR FUNDS IN SUCH AMOUNTS AS MAY BE REQUIRED TO COVER EMERGENCIES AND ANTICIPATED DELINQUENCIES.

FACTORS FOR RECOMMENDATION

Any Rate Change recommended to the Board of Trustees by the Rate Commission is to be accompanied by a statement of the Rate Commission that the proposed 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.

See Charter Plan, § 7.270.

First Factor: Whether the Rate Change Proposal, and all portions thereof, “is consistent with constitutional, statutory or common law as amended from time to time.”

The Charter Plan does not define the terms or phrases utilized as the criteria governing the rate. As such, to interpret the meaning of words used in a statute, usually the words are attributed their plain and ordinary meaning. See Sermchief v. Gonzales, 660 S.W.2d 683, 688 (Mo. banc 1983). Similarly, an interpretation of words in their plain and ordinary meaning can be performed on the words and phrases utilized in the Charter Plan. The commonly understood meaning of words is derived from the dictionary. See Buechner v. Bond, 650 S.W.2d 611, 613 (Mo. banc 1983).

Webster’s Dictionary defines “consistent” as “agreement or harmony in parts or of different things.” See Webster’s Dictionary, p. 154 (2016 ed.).

Black’s Law Dictionary defines “constitutional law” as “the body of law deriving from the U.S. Constitution and dealing primarily with governmental powers, civil rights, and civil liberties.” See Black’s Law Dictionary, p. 331 (8th ed. 2004). See also Webster’s Dictionary, p. 155 (2016 ed.) (constitutional is “of or pertaining to, or inherent in, the constitution of body or mind”).

Next, “statutory law” is “the body of law derived from statutes rather than from constitutional or judicial decisions.” See Black’s Law Dictionary, p. 1452 (8th ed. 2004). See also Webster’s Dictionary, p. 699 (2016 ed.) (statutory is defined as “imposed by statute”).

Further, according to Black’s Law Dictionary, “common law,” as distinguished from statutory law created by the enactment of legislatures, is the body of law derived from judicial decisions rather than from statutes or from constitutions. See Black’s Law Dictionary, p. 293 (8th ed. 2004).

With this, Missouri defines “common law” as:

The common law of England and all statutes and acts of parliament made prior to the fourth year of the reign of James the First, of a general nature, which are not local to that kingdom and not repugnant to or inconsistent with the Constitution of the United States, the constitution of this state, or the statute laws in force for the time being....

See Mo. Rev. Stat. § 1.010 (2016).

Finally, according Black’s Law Dictionary, the word “amend” means to change, correct, or revise. See Black’s Law Dictionary, p. 89 (8th ed. 2004). See also Webster’s Dictionary, p. 23 (2016 ed.) (to amend means to change for the better).

This first factor appears in identical fashion in § 7.300 of the Charter, which indicates that the Board of Trustees shall accept a Rate Commission Report unless it finds that the report “is contrary to constitutional, statutory or common law as amended from time to time.” See Charter Plan, § 7.300(b)(1). However, this factor is not further defined or explained.

As such, this factor must be interpreted in its plain and ordinary meaning pursuant to the rules of statutory construction. Consequently, to interpret the phrase, “is consistent with constitutional, statutory or common law as amended from time to time” with respect to the Rate Commission’s rate recommendation means to ensure that any recommended rate comports with all existing and relevant federal and statutory provisions.

The District is a body corporate, a municipal corporation, and a political subdivision of the state, with power to act as a public corporation. See Charter Plan, § 1.010. Pursuant to the District’s Charter, the District has the authority to propose or recommend a change in wastewater rates, stormwater rates and tax rates or change the structure of any of the foregoing. See Charter Plan, § 7.040. The Charter Plan “supersedes conflicting laws” inconsistent therewith relating to the District’s territory. See State on Inf. of Dalton v. Metro. St. Louis Sewer Dist., 275 S.W.2d

225, 228 (Mo. banc 1955). See also Mo. Const. art. VI, § 30(b) (A charter established pursuant to this section shall “take the place of and supersede all laws, charter provisions and ordinances inconsistent therewith relating to said territory”).

Authority

Pursuant to the District’s Charter, the District has the authority to propose or recommend a change in wastewater rates, stormwater rates and tax rates or change the structure of any of the foregoing. See Charter Plan, § 7.040. Section 3.020(16) of the Charter Plan provides that the District shall have the power to “establish by ordinance a schedule or schedules of rates, rentals, and other charges, to be collected from all the real property served by the sewer facilities of the District, whether public or private....”

“Rates” are not expressly defined in the Charter Plan or case law. “When construing a provision of a city charter or ordinance, the general rules of statutory construction apply.” Civil Serv. Comm’n. of City of St. Louis v. Members of Bd. of Aldermen of City of St. Louis, 92 S.W.3d 785, 787 (Mo. banc 2003). “The primary rule of statutory interpretation is to effectuate legislative intent through reference to the plain and ordinary meaning of the statutory language. This Court must presume every word, sentence or clause in a statute has effect, and the legislature did not insert superfluous language. ‘When the words are clear, there is nothing to construe beyond applying the plain meaning of the law.’ A court ‘will look beyond the plain meaning of the statute only when the language is ambiguous or would lead to an absurd or illogical result.’” Bateman v. Rinehart, 391 S.W.3d 441, 446 (Mo. banc 2013) (internal citations omitted). “Courts are instructed by the legislature to take the words in a statute in their plain and ordinary sense. Sec. 1.090. The plain meaning of words, as found in the dictionary, will be used unless the legislature provides a different definition.” Lincoln Indus., Inc. v. Dir. of Revenue, 51

S.W.3d 462, 465 (Mo. banc 2001). “Rate” is defined by Webster’s Dictionary as “a charge, payment, or price fixed according to a ratio, scale, or standard.” See Webster’s Dictionary, p. 597 (2016 ed.).

The Rate Change Proposal presents the District’s proposed use of \$539 million of debt financing pursuant to its existing \$900 million debt financing authority, an additional \$366 million of additional debt under a new \$500 million authorization, and \$550 million in cash financing to fund its Wastewater CIRP through FY 2024 to provide the funds needed to comply with regulatory requirements relating to deficiencies in the District’s wastewater system including sewers, pump stations and treatment plants and to satisfy the requirements of the Consent Decree. See Ex. MSD 3F, p. 2, ll. 4-9.

The District proposes to finance the required capital improvements by a combination of wastewater user charge revenues, available fund balances, senior revenue bonds, Water Infrastructure Finance and Innovation Act loans, Missouri State Revolving Fund loans, grants and contributions, and interest income. See Ex. MSD 1, p. 4-17.

In the event the District voters do not authorize new bonds to finance the CIRP in order to comply with the terms of the Consent Decree, the District proposes cash financing. The financial analysis supporting the development of the alternative cash financing rate is described in Ex. MSD 1, § 6.1, Figure 6.1 and Tables 6-1 through 6-4.

Revenue Bonds. The District was formed on February 9, 1954, when voters in the City of St. Louis and a portion of St. Louis County approved the Charter Plan to provide a metropolitan-wide system of stormwater treatment and facilities for the collection, treatment, and disposal of sewage. The Charter Plan was amended on November 7, 2000, and further amended on June 5, 2012.

SECTION 3.020. Powers of the District. — the District established under the provisions of this Plan shall have power:

* * *

To meet the cost of acquiring, constructing, improving, or extending all or any part of the sewer or drainage systems: (a) through the expenditure of any funds available for that purpose; (b) *through the issuance of bonds for that purpose, payable from taxes to be levied and collected by the District;* (c) *through the issuance of bonds for that purpose, payable from special benefit assessments levied and collected by the District;* (d) from the proceeds of special benefit assessments or bills evidencing such assessments; (e) from any other funds which may be obtained under any law of the state or of the United States for that purpose; (f) *from the proceeds of revenue bonds, payable from the revenues to be derived from the operation of sewerage and drainage facilities and systems of the entire District ... as may be set forth in propositions submitted at elections in the District ... from time to time called and held to authorize the issuance of such revenue bonds;* or (g) from any combination of any or all such methods of providing funds.

* * *

See Charter Plan, § 3.020(15) (emphasis added).

The Charter Plan requires an annual budget, an explanatory budget message, and a general appropriation ordinance conforming with the budget. The budget shall provide a complete financial plan for the budget year for all District and subdistrict funds, and shall include the following:

- (1) Estimated revenues to be actually received from all sources during the budget year, together with a comparative statement of revenues for the two years next preceding, itemized by year, fund, and source.
- (2) Proposed expenditures, including projected expenses included in the Rate Commission's budget as provided in Section 7.260, recommended by the Executive Director for the budget year, together with a comparative statement of expenditures for the two years next preceding, itemized by year, fund, activity, and object.
- (3) The amount required for the payment of interest, amortization, and redemption charges on the debt of the District or any subdistrict.
- (4) A general budget summary.

- (5) A list of capital projects.

In no event shall the total amount of proposed expenditures for the budget year from any fund exceed the estimated revenues to be actually received plus any unencumbered balance or less any deficit estimated for the beginning of the budget year.

See Charter Plan, § 7.130 (emphasis added). Subject to these restrictions, the District has the authority to issue revenue bonds.

At the end of each fiscal year, the unexpended and unencumbered parts of all appropriations shall revert to the funds from which appropriated. See Charter Plan, § 7.050. Upon approval by the Board of Trustees, the Executive Director may transfer any unencumbered appropriation balances or portion thereof from one classification of expenditure to another. See Charter Plan, § 7.150.

The District's authority to issue revenue bonds requires the approval of the voters of the District. Specifically, the Charter Plan provides:

No general obligation bonds, except bonds for refunding, advance refunding, extending, or unifying the whole or any part of valid bonded indebtedness, shall be issued without the assent of the voters of the District ... in the number required by Article VI, § 26(b) of the Constitution of Missouri (as amended from time to time), voting at an election to be held for that purpose. *No revenue bonds payable from the revenues to be derived from the operation of any or all sewer and drainage systems and facilities of the District ...* except bonds for refunding, advance refunding, extending, or unifying the whole or any part of revenue bonds, shall be issued without the assent of a simple majority of the voters of the District ... voting at an election to be held for that purpose. Notwithstanding anything herein to the contrary, the District is expressly authorized to issue District-wide general obligation and revenue bonds.

See Charter Plan, § 7.170 (emphasis added).

The Missouri Supreme Court has expressly recognized this authority, stating, “The other powers objected to, namely, ... incurring debts, ... issuance of tax anticipation warrants, ... and issuance of bonds, ... are essential powers of such district.” State on inf. Dalton v. Metro. St.

Louis Sewer Dist., 275 S.W.2d 225, 231 (Mo. banc 1955). The court continued, “[w]ithout the power to incur debts and issue bonds, adequate drains, sewers and disposal plants could not be constructed. However, in the exercise of this power, the District is subject to the financial limitations imposed by the Constitution on all government subdivisions.” Id.

Clean Water Act and Consent Decree

Section 204(b) of the Water Pollution Control Act of 1972, as amended in 1977, commonly known as the “Clean Water Act,” specifies conditions relating to charges for wastewater service. See 33 U.S.C. § 1283.

Implementation of the Clean Water Act and approval of a system of user charges by the EPA had generally resulted in a simple, uniform, flat commodity or volumetric charge for all customers, regardless of billable volume, effluent strengths, load factor, peaking characteristics, or other considerations. Acceptable exceptions have included a surcharge system for high effluent strength discharges and assignment of the cost of the industrial pretreatment program to the participants.

The EPA has adopted rules and regulations regarding user charges. These rules and regulations are incorporated in Part 35 of Title 40 of the Code of Federal Regulations.

User Charges are those levied on users of treatment works for their proportionate shares of the cost of operation and maintenance (including interim replacement) of the treatment works. 40 C.F.R. § 35.2005 (52). Treatment works consist of all facilities used for the collection, transmission, storage, treatment, and disposal of wastewater. 40 C.F.R. § 35.2005 (49). If the wastewater utility is to be eligible for federal grants, it must demonstrate compliance with the following user charge requirements as part of the rate design process:

- Rates must result in the distribution of the cost of operation and maintenance of all treatment works within the grantee's jurisdiction. Distribution must be in proportion to each user or user class contribution to the total wastewater loading of the treatment works.
- Rates must generate sufficient revenues to offset the cost of all treatment works operation and maintenance expense.
- Each user who discharges pollutants to the treatment works causing increased costs will pay for such increased costs.
- Grantee must apportion operation and maintenance costs associated with the treatment and disposal of I/I to users on the basis of the allocation of all other operations, or a system that includes consideration of flow volume of the users, land area of the users, or the number of connections to the users.

See 40 C.F.R. 35.2140.

The District's position is that the Rate Change Proposal is necessary for it to comply with the Consent Decree, and other laws including the Clean Water Act. On June 11, 2007, the United States of America, acting at the request and on behalf of the Administrator of the EPA, and the State of Missouri by the authority of the Attorney General of Missouri, filed a claim in the United States District Court for the Eastern District of Missouri against the Metropolitan St. Louis Sewer District captioned United States of America and the State of Missouri and the Missouri Coalition for the Environment Foundation v. The Metropolitan St. Louis Sewer District, for injunctive relief and civil penalties alleging: unpermitted discharges from combined sewer system; violation of the proper operation and maintenance condition in the District's NPDES permits; violation of the backup power condition in the District's NPDES permits;

violation of the bypass prohibition condition in the District's NPDES permits; violation of the noncompliance reporting condition in the District's NPDES permits; failure to submit long-term CSO control plan pursuant to Part D.1 of the District's NPDES permits and Clean Water Act § 308 Request; and violation of the general criteria special condition in the District's NPDES permits.

The District executed on July 15, 2011, a 23-year, \$4.7 billion Consent Decree program with the EPA, the State of Missouri, and the Missouri Coalition for the Environment Foundation. This program requires the District to make investments in the wastewater system to eliminate sanitary sewer overflows and combined sewer overflows, and helps reduce the risk of flooding customer properties. See Ex. MSD 37. The current estimated CIRP needs are presented in Figure 4-3 and Table 4-7 of Exhibit MSD 1 for FY 2019 through FY 2024. The total CIRP project cost for FY 2021 through FY 2024 is \$1.58 billion. The largest component of the CIRP over this period will be capital investments related to capacity improvements in the wastewater system, and sewage sludge incineration. Additional needs include other improvements to comply with regulatory requirements outside of the Consent Decree are also included therein, and with asset management renewal at the plants. See Ex. MSD 1, p. 4-15.

In 2018, an amendment to the Consent Decree was agreed to, providing an additional five years for the District to complete its Consent Decree obligations, and rescheduling a number of major CSO tunnels to later years. This was requested by the District to mitigate the rate impact of additional major treatment plant investment in sewage sludge incinerators and air emissions control systems for compliance with the Clean Air Act. See Ex. MSD 3B, p. 4, ll. 23-24. See also Ex. MSD 37A. "The Bissell and Lemay Fluidized Bed Incinerators project replaces incinerators originally constructed in the 1970s. The operation of these incinerators is regulated by USEPA

and [Missouri Department of Natural Resources]. 40 CFR Part 62 – Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or Before October 14, 2010 (SSI Rule) was finalized in June, 2016, and required new Maximum Achievable Control Technology (MACT) standards to be included in the Bissell and Lemay plant operating permits... The District’s second material amendment to the Consent Decree was negotiated to financially accommodate the construction of new fluidized bed incinerators, by delaying a number of major Consent Decree tunnel projects. This Consent Decree amendment states ‘the Parties agree that this proposed Amendment is necessary because MSD currently incinerates 68,000 tons of sewage sludge annually, utilizing multiple hearth incinerators. The Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or before October 14, 2010, set forth at 40 C.F.R. Part 62, Subpart LLL (‘SSI Rule’), issued by EPA in 2016, require MSD to replace its multiple hearth incinerators. The replacement of these incinerators will occur in fiscal years 2021-2026 timeframe and is estimated to cost approximately \$360 million in 2017 dollars.’” See Ex. MSD 80A, pgs. 1-2, ll. 26-42.

The projects which the District contends are required to comply with the Consent Decree are set forth in Appendix 7.2.2 of the Rate Change Proposal, Ex. MSD 1, pgs. 7-18 – 7-90. See also Ex. MSD 56B.

The District testified that the Clean Water Act provides for penalties up to \$50,000 per violation per day. Failure to meet the requirements imposed at the Federal and State level would be extremely financially burdensome and would directly hamper or at differing levels, even thwart the efforts of the District. The Consent Decree also outlines stipulated penalties ranging from \$500 per day to \$4,000 per day depending upon the type and length of noncompliance. See Ex. MSD 3B, p. 3, ll. 8-14.

Missouri Constitution

In 1980, Missouri voters approved Article X, Sections 16-24 of the Missouri Constitution (the “Hancock Amendment”). The Hancock Amendment purports to shield taxpayers against the government’s ability to increase the tax burden above that borne by the taxpayers on November 4, 1980. See Zweig v. Metro. St. Louis Sewer Dist., 412 S.W.3d 223, 231 (Mo. banc 2013).

Specifically, the first sentence of the Hancock Amendment states:

Property taxes and other local taxes ... may not be increased above the limitations specified herein without direct voter approval as provided by this constitution....

See Mo. Const. art. X, § 16. This provision is implemented by Section 22(a), which provides:

[P]olitical subdivisions are hereby prohibited from *levying any tax, license or fees*, not authorized by law, charter or self-enforcing provisions of the constitution when this section is adopted *or from increasing the current levy of an existing tax, license or fees*, above that current levy authorized by law or charter when this section is adopted without the approval of the required majority of the qualified voters....

See Mo. Const. art. X, § 22(a) (emphasis added).

The current Rate Change Proposal is factually similar to the rate increase upheld by the Missouri Court of Appeals in Missouri Growth Association v. Metropolitan St. Louis Sewer District, 941 S.W.2d 615 (Mo. App. E.D. 1997). Specifically, for property with a water meter, the bill is calculated using a base charge in addition to usage-based rates. For property without a water meter, the bill is calculated using a base charge in addition to estimated usage-based rates based on the number of rooms, baths, showers and water closets in a property.

The District states that the Rate Change Proposal is consistent with constitutional, statutory or common law as amended from time to time. Susan Myers testified that “the Proposed Rate Change complies with the rate change procedures set forth in Charter Section 7.280. Second, in Missouri Growth Association v. Metropolitan St. Louis Sewer District, 941

S.W.2d 615 (Mo. App. E.D. 1997), the Missouri Court of Appeals held that the District's wastewater service charges were user fees, not taxes, and therefore rate increases did not require voter approval pursuant to Article X, Section 22(a) of the Missouri Constitution (the Hancock Amendment). The structure of the wastewater charge contained in the Proposed Wastewater Rate Change is the same as that approved in the Missouri Growth decision." See Ex. MSD 3B, p. 2, ll. 7-14.

The District's Rate Change Proposal states that "[t]he District's current [Wastewater] rate structure consists of base service charges and volume charges applicable to all MSD customers. The base service charges include a billing and collection charge and a system availability charge. The volume charge is assessed to all customers based on their respective water usage. Billing data is provided by the customers' respective water providers on either a metered or unmetered basis. All non-residential customers are also assessed one of five tiered compliance charges based on the amount of inspection and testing of [Wastewater] needed to comply with current regulations and extra strength charges where applicable. Extra strength surcharges are applied to monitored non-residential customers generating excess biochemical oxygen demand (BOD), chemical oxygen demand (COD), and total suspended solids (TSS)." See Ex. MSD 1, p. 4-1. "The volume from unmetered residential customers is likewise measured in Ccfs as determined based upon estimates of indoor water usage per fixture and the number of rooms within these properties, referred to as attributes throughout the Proposal. Billable [Wastewater] volumes for all metered residential customers are determined based on water used during the period best equated to contributed [Wastewater] volume. [The District] defines its best equated period as a 90 to 92 day period of water usage between November and April of the preceding winter period. This period most closely reflects the water entering the [District's] [Wastewater] system by

avoiding spring and summer water usage for activities such as lawn sprinkling and the filling of swimming pools.” See Ex. MSD 1, p. 4-5.

In the Missouri Growth case, the court described the District’s rate setting methodology as follows:

Under the new and current form of billing, all customers are charged a \$.37 billing and collection charge, a \$3.72 system availability or ‘readiness to serve’ charge, and a volume charge of \$.99 per 100 cubic feet of customer contributed wastewater. Wastewater volume is determined in one of two ways, depending upon whether or not the customer has a water meter. For customers who have water meters, the volume charge is based on the water usage shown on their home meters. Metered water usage for single-family residential customers is based on the “best equated period,” which is a period of water usage between November and April when the amount of outdoor water usage is at a minimum. This minimizes the chance of customers being charged for water used for outdoor purposes since the water used outdoors does not enter MSD’s sewer system. Since all non-residential customers including both commercial and multi-family users have water meters, they are also billed on this basis of usage.

...

For non-metered customers, the volume charge is based on water consumption figures based on the number of rooms and fixtures on their property. These water consumption measures used in determining water usage for metered and non-metered customers are laid out in MSD’s Charter (Plan) and have already been approved by the voters.

941 S.W.2d at 618-619. The Court of Appeals held that “these two methods of measuring wastewater usage for metered and non-metered customers have both been specifically approved by the voters in MSD’s Charter (Plan), Article 3, § 3.020(16). Therefore, the charge bears a direct relationship to the services provided.” Id. at 624.

The current Rate Change Proposal is factually similar to the rate increase already held to be a “true” user fee by the Missouri Court of Appeals in Missouri Growth.

It is the District’s position that the Rate Change Proposal is compliant with Constitutional, statutory, and common law as amended from time to time, and no other party has

presented evidence to the contrary. Any rate increase resulting from revenue bond proposals would be approved by the voters, as required by the District's Charter Plan.

There was no evidence presented that the Wastewater Rate Change Proposal is not in compliance with constitutional, statutory and common law as amended from time to time.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES AND THE RECORD PRESENTED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL IS CONSISTENT WITH CONSTITUTIONAL, STATUTORY, AND COMMON LAW, AS AMENDED FROM TIME TO TIME.

Second Factor: Whether the Rate Change Proposal, and all portions thereof, “Enhances the District’s ability to provide adequate sewer and drainage systems and facilities, or related services.”

The terms “adequate sewer and facilities” appear in part in § 1.010 of the Charter Plan, which reads, “In the interest of the public health and for the purpose of providing *adequate sewer and drainage facilities* within the boundaries herein defined ... there is hereby established a metropolitan sewer district....” See Charter Plan, § 1.010 (emphasis added).

These terms appear again in § 7.300 of the Charter Plan, which provides that the Board of Trustees shall accept a Rate Commission Report unless it finds that the report “substantially impairs the District’s ability to provide *adequate sewer and drainage systems and facilities or related services* to the point where public health or institutional safety may be jeopardized.” Id. at § 7.300(b)(2) (emphasis added).

Similar language may be found in the Restated Operational Rules of the Rate Commission indicating that the District shall submit to each member of the Commission information related to direct testimony that may explain “how the Proposed Rate Change will enhance the District’s ability to provide *adequate sewer and drainage systems and facilities, or related services.*” See Ex. RC 55, p. 24 (emphasis added).

The Charter Plan requires the Rate Commission to state whether the Proposed Rate Changes “enhances” the District’s ability to provide these “adequate” sewer and drainage systems and facilities. Neither the Charter Plan nor the Operational Rules, however, define the term “enhance.” To interpret the meaning of words used in a statute, usually the words are attributed their plain and ordinary meaning. See Sermchief v. Gonzales, 660 S.W.2d at 688. The commonly understood meaning of words is derived from the dictionary. See Buechner v. Bond,

650 S.W.2d at 613. See also Black’s Law Dictionary defines “enhanced” as “made greater; increased.” Black’s Law Dictionary, p. 570 (8th ed. 2004). See also Webster’s Dictionary, p. 238 (2016 ed.) (to enhance means to increase or improve (as in value or desirability)). According to Black’s Law Dictionary, the word “adequate” means legally sufficient. See Black’s Law Dictionary, p. 40 (8th ed. 2004). See also Webster’s Dictionary, p. 9 (2016 ed.) (adequate means equal to or sufficient for a specific requirement).

Consequently, this criteria may be interpreted in accordance with its plain and ordinary meaning. An analysis of this criteria in its plain and ordinary meaning which reads, “enhances the District’s ability to provide adequate sewer and drainage systems and facilities or related services” would be to ensure that the proposed rate improves or increases the District’s ability to provide adequate services and systems throughout the metropolitan district.

A summary of the financial plan showing projected wastewater revenues and wastewater revenue requirements for the District during the forecast period is presented in Table 4-10 of Exhibit MSD 1 which demonstrates projected wastewater user charge revenue that is required in order to balance the revenue requirements through FY 2024. The magnitude of the increase shown for each year was selected based on consideration of three principal criteria:

- (1) Total revenue necessary to meet cash requirements for normal wastewater operations. This includes consideration of a one-month lag in the receipt of additional user charge revenue from increased rates;
- (2) Annual increases in wastewater revenues available to cash finance a portion of the wastewater utility related major capital improvements; and
- (3) Wastewater revenue required to meet certain financial metrics, based on comments from the District's rating agencies, including debt service coverage levels and strong liquidity position over the Rate Proposal period.

See Ex. MSD 1, p. 4-22. Total revenue is projected to be \$411.8 million in FY 2019 and increase to \$517.2 million in FY 2024. This represents an overall annual compound increase of 5.3% during this time period. Id. at p. 4-24.⁵

Table 4-10 shows the estimated net revenue remaining after deducting wastewater Operations and Maintenance expenses from total wastewater revenues. Anticipated debt service requirements on senior revenue bonds and State Revolving Fund loans will require the District to obtain additional revenue bond authorization in the amount of \$500 million before the start of FY 2022. Id. The District's existing wastewater rates have been in effect since July 1, 2018, and the approved rates for FY 2020 will go into effect on July 1, 2019. Id. at p. 4-1.

The District executed on July 15, 2011, a 23-year, \$4.7 billion Consent Decree program with the EPA and the Missouri Coalition for the Environment Foundation. See Ex. MSD 37. The Consent Decree program requires the District to make investments in the wastewater system to eliminate sanitary sewer overflows and combined sewer overflows; and help reduce the risk of flooding customer properties. The current estimated Capital Improvement and Replacement Program needs are presented in Figure 4-3 and Table 4-7 of Exhibit MSD 1 for FY 2019 through FY 2024. The total Capital Improvement and Replacement Program project cost for the next four year rate cycle is projected to be \$1.58 billion. The largest component of the Capital Improvement and Replacement Program over the next rate cycle will be capital investments related to capacity improvements in the wastewater system, and sewage sludge incineration. Additional needs include other improvements necessary to comply with the Consent Decree, permit and regulatory requirements outside of the Consent Decree, and with

⁵ The Rate Change Proposal relies upon certain assumptions with respect to conditions, events, and circumstances that may occur in the future. Although considered reasonable, some of these anticipated conditions, events and circumstances may not occur resulting in potential differences in revenues and costs than currently projected.

asset management renewal at the treatment plants. Combined sewer overflows projects begin to substantially impact the Capital Improvement and Replacement Program as this component reaches \$158.3 million in FY 2020. See Ex. MSD 1, p. 4-15.

In 2018, an amendment to the Consent Decree was agreed to, providing an additional five years for the District to complete its Consent Decree obligations, and rescheduling a number of major CSO tunnels to later years. This was requested by the District to mitigate the rate impact of additional major treatment plant investment in sewage sludge incinerators and air emissions control systems for compliance with the Clean Air Act. See Ex. MSD 3B, p. 4, ll. 23-24; see also Ex. MSD 37A. “The Bissell and Lemay Fluidized Bed Incinerators project replaces incinerators originally constructed in the 1970s. The operation of these incinerators is regulated by USEPA and [Missouri Department of Natural Resources]. 40 CFR Part 62 – Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or Before October 14, 2010 (SSI Rule) was finalized in June, 2016, and required new Maximum Achievable Control Technology (MACT) standards to be included in the Bissell and Lemay plant operating permits... The District’s second material amendment to the Consent Decree was negotiated to financially accommodate the construction of new fluidized bed incinerators, by delaying a number of major Consent Decree tunnel projects. This Consent Decree amendment states ‘the Parties agree that this proposed Amendment is necessary because MSD currently incinerates 68,000 tons of sewage sludge annually, utilizing multiple hearth incinerators. The Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or before October 14, 2010, set forth at 40 C.F.R. Part 62, Subpart LLL (‘SSI Rule’), issued by EPA in 2016, require MSD to replace its multiple hearth incinerators. The replacement of these incinerators will occur in fiscal years

2021-2026 timeframe and is estimated to cost approximately \$360 million in 2017 dollars.” See Ex. MSD 80A, pgs. 1-2, ll. 26-42.

The projects which the District contends are required to comply with the Consent Decree are set forth in Appendix 7.2.2 of the Rate Change Proposal, Ex. MSD 1, pgs. 7-18 – 7-90. See also Ex. MSD 56B.

Wastewater revenues “must at least be sufficient to finance the [Wastewater] utility’s O&M expense, routine annual capital improvements and debt service costs on existing and proposed senior revenue bonds and [State Revolving Fund] loans, while maintaining an adequate operating reserve and complying with all revenue bond debt service coverage requirements. Annual revenues or existing reserve funds can also be used to finance the [Wastewater] utility’s major capital improvement program. Figure 4-6 below presents the estimated financial plan of the [Wastewater] enterprise, which shows that annual [Wastewater] revenues under existing rates are not sufficient to meet the total revenue requirements of the [Wastewater] utility during the forecast period without future revenue increases.” See Ex. MSD 1, p. 4-20.

The Wastewater CIRP provides a “listing, schedule, and cost of needed repairs, additions, and improvements to the wastewater system to maintain the system in operating order and to ensure the system operates in a manner that complies with all State and Federal Regulatory requirements and the Consent Decree.” See Ex. MSD 3C, p. 2, ll. 3-6. “The CIRP is needed to provide the project identification, planned fiscal year and anticipated annual costs associated with system improvements. This will then provide the basis for required annual revenue and resources needed to plan, design, and construct these improvements.” Id., ll. 8-11. The Wastewater CIRP for this rate cycle is set forth in Appendix 7.2.2 of Ex. MSD 1, pgs. 7-18 – 7-

90. The CIRP consists of approximately \$1.6 billion in improvements during the rate cycle, FY 2021 through FY 2024. Id., ll. 15.⁶

The District’s position is that the Rate Change Proposal looking forward will enhance the District’s ability to provide adequate sewer and drainage systems and facilities, and related services. “The Rate Change Proposal provides the funds needed to continue adequate O&M in the collection systems, pump stations, and wastewater treatment plants. The [Capacity, Management, Operation and Maintenance] program should continue to improve the operations of the collection system and reduce overflows and basement backups. This Rate Change Proposal will also allow for our aging treatment plants to continue to operate efficiently and meet permit requirements.” See Ex. MSD 3D, p. 5, ll. 11-15. The funding proposed in the District Rate Change Proposal “is necessary to allow the District to operate and maintain our systems, and make necessary capital improvements to meet the commitments of the [Consent Decree] and comply with existing permit regulations.” See Ex. MSD 3C, p. 6, ll. 21-23.

The parties to this proceeding agree that a wastewater rate increase is necessary to enhance the District’s ability to operate and maintain its systems, and make necessary capital improvements.

It is the position of the Rate Commission that there is no evidence in the proceeding indicating that the Wastewater Rate Change Proposal will not enhance the District’s ability to provide adequate services, and no party has presented any evidence to the contrary.

⁶ The Commission notes that although the CIRP often refers to “costs,” the testimony in these Proceedings indicates the “costs” are really various levels of estimated costs.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL ENHANCES THE DISTRICT'S ABILITY TO PROVIDE ADEQUATE SEWER AND DRAINAGE FACILITIES OR RELATED SERVICES.

Third Factor: Whether the Rate Change Proposal, and all portions thereof, “Is consistent with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District.”

The Charter Plan states that the Board of Trustees shall accept a Rate Commission Report unless it finds that the report “is contrary to or in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District.” The Operational Rules provide that the District shall submit to each member of the Commission any and all direct testimony that may be required to fully demonstrate and explain, “whether and to what extent the Proposed Rate Change is necessary to enable the District *to comply with any covenant or provision relating to any outstanding bonds or indebtedness* of the District, together with a specific quantification of the amount of the Proposed Rate Change that is necessary for such purposes. See Ex. RC 55, p. 5 (emphasis added).

Neither the Charter Plan nor the Operational Rules defines “consistent with” or “not in violation.” As such, to interpret the meaning of words used in a statute, usually the words are attributed their plain and ordinary meaning. See Sermchief v. Gonzales, 660 S.W.2d at 688. The commonly understood meaning of words is derived from the dictionary. See Buechner v. Bond, 650 S.W.2d at 613.

Webster’s Dictionary defines the term “consistent” as “agreement or harmony in parts or of different things.” See Webster’s Dictionary, p. 154 (2016 ed.).

Further, a “violation” is “an infraction or a breach of the law; a transgression.” See Black’s Law Dictionary, p. 1600 (8th ed. 2004). See also Webster’s Dictionary, p. 807 (2016 ed.) (a violation is a breach or infringement).

An analysis of the language “is consistent with and not in violation of any covenant or provision relating to any outstanding bonds or indebtedness of the District” would require the Rate Commission to recommend a rate only if it complies with provisions relating to any outstanding bonds or indebtedness of the District.

The Rate Change Proposal presents the District’s proposed use of an additional \$500 million in bond financing and \$587 million is expected to fund 37% of the total CIRP between FY 2021 and FY 2024 to provide the funds needed to comply with regulatory requirements relating to deficiencies in the District's wastewater system including sewers, pump stations and treatment plants and to satisfy the requirements of the Consent Decree.

The District proposes to finance the required capital improvements by a combination of wastewater user charge revenues⁷, available fund balances, senior revenue bonds, Water Infrastructure Finance and Innovation Act loans, Missouri State Revolving Fund loans, grants and contributions, and interest income. See Ex. MSD 1, p. 4-17.

Outstanding Revenue Bonds. Revenue bonds do not rely upon the general credit or tax money of the District and do not constitute indebtedness of the District within the limitations of Charter Plan Section 7.190 or Article VI, § 26(b) of the Missouri Constitution. Under the authority of Mo. Rev. Stat. § 250.120.1 (2000), once the voters have approved revenue bonds, the District has authority to raise wastewater and stormwater rates to pay principal and interest on the bonds and to meet the costs of maintenance and operation of the facilities.

On April 22, 2004, the Board of Trustees issued its first revenue bonds under the terms of a Master Bond Ordinance.

⁷ The phrase “wastewater user charge revenues” is used interchangeably with “rate revenues” throughout these Proceedings.

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. See Ex. MSD 14.

Additional senior revenue bonds have been issued in 2006, 2008, 2010, 2011, 2012, 2013, 2015, 2016 and 2017. See Ex. MSD 1, p. 4-18. Supplemental Bond Ordinances authorized by the Board of Trustees relating to additional revenue bond issues include the same covenants. See Exs. MSD 15 through 36. The principal remaining on all of the District's senior revenue bonds issued to date is \$1.2 billion as of June 30, 2018. The District has also participated in multiple subordinate series of revenue bonds issued under the Missouri State Revolving Fund loan program. The total amount of principal remaining on all of the District's State Revolving Fund loans issued to date is approximately \$423 million as of June 30, 2018. See Ex. MSD 1, p. 4-18.

A consideration in measuring the adequacy of District revenues is the provision of sufficient debt service coverage to meet the actual debt service paid to the bondholders on the senior revenue bonds and on the State Revolving Fund loans. The debt service coverage of the senior revenue bond debt service, i.e., the ratio of net revenue to total senior revenue bond debt service for each year of the study period shows the debt service coverage of the combined

senior revenue bond and State Revolving Fund debt service (i.e., the ratio of net revenue to total debt service for each year of the study period). Current wastewater revenue bond covenants require the District to provide debt service coverage equal to at least 125% (>1.25x) of the annual principal and interest payment on all senior revenue bonds and 115% (>1.15x) of the combined annual principal and interest payment on all wastewater senior revenue bonds and all State Revolving Fund loans. Id. at p. 4-24.

Moody's Investors Services assigned a credit rating of Aa1 to the District's 2017A revenue bond obligations on November 17, 2017. See Ex. MSD 39. Fitch Ratings assigned a rating of AA+ on November 21, 2017, to the District's Series 2017A revenue bond obligations. See Ex. MSD 40. Standard & Poor's Ratings Service assigned a rating of AAA on November 15, 2017, to the District's Series 2017A revenue bond obligations. See Ex. MSD 38.

Proposed Revenue Bonds. The Rate Change Proposal is designed to generate debt service coverages for proposed revenue bonds consistent with rating agencies' expectations for "AA" rated large metropolitan wastewater systems. See Ex. MSD 3G, p. 3-4, ll. 21-23 and 1-2.

The District's Capital Improvement and Replacement Program projects are primarily funded by the issuance of senior revenue bonds and State Revolving Fund loans while the smaller remaining work is on a cash-funded basis (Pay As You Go). Debt financing of the majority of the Capital Improvement and Replacement Program allows the financing burden to be appropriately shared by both present and future users benefiting from the wastewater system improvements. Capital improvements routinely incurred each year as determined by the District's comprehensive asset management program are more appropriately financed with Pay As You Go revenue generated from annual wastewater service revenue. See Ex. MSD 1, p. 4-16. See also Ex. MSD 3F, p. 2, ll. 4-9; p. 3-4, ll. 23-24 and 1-8.

New senior revenue bonds with a total par value of \$785 million and \$120 million in additional State Revolving Fund loans are expected to be issued between FY 2021 and FY 2024 to provide this funding. This will require the District to obtain voter approval for authorization of \$500 million of additional debt financing prior to FY 2022. The District plans to take advantage of the State Revolving Fund loan program but expects to be limited to \$30 million each year from FY 2021 through FY 2024. Total senior revenue bonds, State Revolving Fund loans and Water Infrastructure Finance and Innovation Act bonds are expected to finance approximately 61% of the four-year Capital Improvement and Replacement Program costs. The cash financing of capital improvements from annual revenues is expected to total \$550 million between FY 2021 through FY 2024. In total, cash financing is expected to fund 37% of the total Capital Improvement and Replacement Program between FY 2021 and FY 2024. The District anticipates receiving grants and contributions of \$2.9 million between FY 2021 and FY 2024. See Ex. MSD 1, p. 4-17.

The projected amortization of future revenue bond issues determined by PFM, the District's financial advisor, is based on current market conditions and certain assumptions regarding future market conditions. Proposed revenue bond issues will be governed by supplemental bond ordinances incorporating the bond covenants set forth in the Master Bond Ordinance. Generally, future senior revenue bonds are assumed to have a 30-year term and annual coupon rates between 5.0% and 5.5%. Future State Revolving Fund loans issued to fund the Capital Improvement and Replacement Program are expected to have 20-year terms and a net effective annual interest and administration cost of about 3% per year. In addition to the interest cost of future debt, the District will incur issuance costs with each senior revenue bond issue and State Revolving Fund loan, and be required to maintain a debt service reserve fund for

the senior revenue bonds. The issuance costs for senior revenue bonds are estimated at 1.0% of the total issuance amount. Issuance costs for State Revolving Fund loans are expected to be 0.65% of the total State Revolving Fund loan amount. See Ex. MSD 1, p. 4-18.

Based on these assumptions, the total annual debt service during the forecast period for existing debt and future proposed debt is expected to increase from \$115.6 million in FY 2019 to \$177.0 million in FY 2024. Id. at p. 4-19.

The Missouri Supreme Court has specifically held that the issuer of revenue bonds for the operation and maintenance of a sewage system had the authority to raise water and sewage rates, not only to pay principal and interest in revenue bonds issued for the purpose of construction of a water treatment plant and water transmission lines, but also to meet the cost of maintenance and operation of the physical plan itself. See Oswald v. City of Blue Springs, 635 S.W.2d 332, 333-334 (Mo. banc 1982). Moreover, once the voters have approved the bonds, such increases may be made without again submitting the increase to the voters. Id. at 334. Under Oswald, approval of the Rate Change Proposal is not required to meet existing bond covenant requirements on revenue bonds previously authorized by the voters.

Missouri State Revolving Fund. The “Missouri Clean Water Law” is designed to meet the requirements of the Federal Clean Water Act of 1987 (the “Act”). See 33 U.S.C. §§ 125-1376. See also Mo. Rev. Stat. § 644.011 (2014). It also establishes the Missouri Clean Water Commission (the “Commission”), which is required to adopt rules and regulations to enforce the powers and duties of Chapter 644 and the Act. See Mo. Rev. Stat. §§ 644.021, 644.026 (2014). The Missouri Code of State Regulations sets forth the general requirements for the implementation of Title VI of the Act, which authorizes the administrator of the EPA to make

capitalization grants to states to fund financial assistance programs authorized by Title VI of the Act. See 10 CSR 20-4.021.

The Missouri State Revolving Fund Program is a partnership between the EPA and the Missouri Department of Natural Resources (the “Department”), and provides subsidized low interest rate loans to qualifying applicants.

In Missouri, the Clean Water State Revolving Fund Program consists of the Water and Wastewater Loan Fund (“WWLF”) and the Water and Wastewater Revolving Loan Fund (“WWRLF”) and those accounts secured by funds from the WWLF and the WWRLF. 10 CSR 20-4.040(2)(P). The State Revolving Fund is subject to the requirements, restrictions, and eligibilities placed on the State Revolving Fund by the Act. Id. The State Revolving Fund also funds the State Direct Loan Program (“Direct “Loans”). See 10 CSR 20-4.041.

The Department may make Direct Loans by purchasing the general obligation bonds, revenue bonds, short-term notes or other acceptable obligations of any qualified applicant for the planning, design, and/or construction of an eligible project. See 10 CSR 20-4.041(1). These loans shall not exceed the total eligible project cost. Id.

Direct Loans are funded from State Revolving Fund loan repayments of federal capitalization grants. See 10 CSR 20-4.041(3). The Department purchases the revenue bonds, general obligation bonds, or other acceptable debt obligations from the recipient no later than six months following the initial operation of the facilities constructed by the project or by the closing deadline contained in the construction loan agreement, whichever is earlier. See 10 CSR 204.041(8). In addition, the Department may require the recipient to include those assurances and clauses in the loan agreements and bond resolutions as deemed necessary to protect the interest of the state. Id.

Under the Direct Loan Program, the bonds, notes or other debt obligations shall be fully amortized in no more than 20 years after initiation of operation and the payment frequency shall be no less than annually with the first payment no later than one year after the initiation of operation. See 10 CSR 20-4.041(9). Repayment of principal shall begin no later than one year after initiation of operation and if at any time during the loan period the facility financed through a Direct Loan is sold, either outright or on contract for deed, to an entity other than a political subdivision of the state, the loan becomes due and payable upon transfer. Id.

Effect on Rate Change Proposal. It is the District's position that the proposed rate change is necessary to reflect: (i) the level of cash balances and resulting bond coverage ratios required through FY 2024 to minimize a possible deterioration in the District's bond rating; (ii) the generation of sufficient revenue to fund the Capital Improvement and Replacement Program required to address the Consent Decree; and (iii) the District's debt service obligations.

The District's voters approved a bond issuance of \$900 million in 2016. See Ex. MSD 3F, p. 2, ll. 17-19. The District's Rate Change Proposal assumes the use of \$539 million additional debt financing remaining under its current \$900 million authorization, up to \$366 million of additional debt under a new \$500 million authorization, and \$550 million of cash, or PAYGO, funding to fund the CIRP from FY21 through FY24. Id., ll. 4-7. There is currently \$674.5 million remaining under the \$900 million authorization to finance capital improvements in FY19, FY20, and into the new rate cycle. Id., ll. 12-13. Debt financing is expected to be made up of approximately 90% percent senior lien bonds and 10% State Revolving Fund (SRF) loans. Id., ll. 16-17. The District intends to seek voter approval for additional bonding authority prior to FY 2022. Id. at p. 6, ll. 4-5.

The District's "outstanding revenue bonds are being repaid according to an amortization schedule established when the bonds were issued from revenue collected from wastewater user charges. FY19 wastewater net revenue is expected to be approximately three times FY19 senior debt service costs." See Ex. MSD 3F, p. 7, ll. 10-13. The District's debt agreements require a minimum senior bond debt coverage ("DSC") ratio of 1.25x and a minimum total bond debt coverage ratio of 1.15x. Id., ll. 17-24. To maintain the District's high credit ratings, the Rate Change Proposal has been set to achieve a minimum DSC of 2.5x for senior bonds and 1.8x for total bonds. Id.

Section 6.1 of the Master Bond Ordinance (see Ex. MSD 14) requires the District to: (i) 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 provide for 100% of operations and maintenance expenses and for the accumulation of a reasonable reserve; (ii) produce Net Operating Revenues in each fiscal year that will equal at least 125% (1.25x) of the Debt Service Requirement on all Senior Bonds then outstanding and 115% (1.15x) of the debt service requirement on all bonds outstanding for the year of computation; and (iii) meet the costs of major renewals, replacements, repairs, additions, betterments, and improvements to the System, necessary to keep the same in good operating condition or as is required by any governmental agency having jurisdiction over the System." See Ex. MSD 61A, p. 9.

The District states that Wastewater Financial Plan, Table 4-10 in Ex. MSD 1, shows that the proposed rates are expected to be sufficient to cover operating expenses, maintain an adequate reserve (see § 4-7 of Ex. MSD 1), and fund the CIRP while maintaining debt coverage ratios above the minimums. See Ex. MSD 61A, p. 9. The District states that the net operating revenues and debt service totals projected in the Rate Change Proposal and Rate Model show

that the proposed rates will comply with Sections 5.3 and 5.4 of the Master Bond Ordinance, relating to debt service coverage requirements. See Ex. MSD 61A, pgs. 9-10. Further, Section 6.7 of the Master Bond Ordinance requires that “[n]one of the facilities or services afforded by the System will be furnished to any user without a reasonable charge being made therefor.” See Ex. MSD 14, p. A-42. The District states that the “Rate Change Proposal does not assume or propose that any service be provided for free.” See Ex. MSD 61A, p. 10.

No party has provided testimony that the District Rate Change Proposal would violate a covenant or provision relating to any outstanding bonds or indebtedness of the District. Further, there is no evidence to indicate that if the minimum total debt service coverage ratio is reduced to 1.6x, as the Rate Commission proposes under the Fifth Factor (Page 90 of its Report), that the Rate Change Proposal will violate any covenant or provision relating to outstanding bonds or indebtedness of the District.

The District’s senior lien bond debt service coverage is projected at 3.19x in FY 2021 while total debt service coverage is projected at 2.1x. Pledged revenues for FY 2021 will provide adequate coverage of projected maximum senior lien debt service and adequate coverage of projected maximum total debt service. See Ex. MSD 1, p. 4-23.

In FY 2024, minimum debt service coverage on senior and total is projected to be 2.57x and 1.81x, respectively. This compares to bond covenant minimum debt service requirements of 1.25 and 1.15 above net annual revenues respectively. See Ex. MSD 1, pgs. 4-23 and 4-24. The projected debt service coverage meets the District’s objective to maintain senior debt service coverage above 2.50x, which is in line with comments provided by rating agencies during the District’s last bond issuance, related to expectations for debt service coverage in order to maintain ratings.

Cash Financing. In the event that the voters of the District do not approve \$500 million in bond financing for a portion of the Capital Improvement and Replacement Program, the District proposes cash financing in order to comply with the terms of the Consent Decree.

Table 5-1 in the Rate Change Proposal presents projected wastewater bills based on the authorization of \$500 million in revenue bonds. The typical customer bill of 6 Ccf per month is shown on line 3, with the annual percentage change shown directly beneath. Table 6-4 presents the same information with the assumption of no further bond authorization.

The alternative rates to finance the entire Capital Improvement and Replacement Program are presented by Table 4-7 of Ex. MSD 1. The resulting rate components change to those shown in Table 6-3. This change results in a 1.9% increase in the FY 2021 average single family residential monthly bill, a 15% increase in FY 2022, a 17% increase in FY 2023 and a 13% increase in FY 2024. The typical single family customer bill throughout the Rate Proposal timeframe is presented in Table 6-4 and shows the impact of not using debt financing for the Capital Improvement and Replacement Program beyond what has already been authorized. See Ex. MSD 1, p. 6-1.

It is the District's position that the Wastewater Rate Change Proposal is compliant with any covenant or provision relating to any outstanding bonds or indebtedness of the District. It is the position of the Rate Commission that the Wastewater Rate Change Proposal is compliant with any covenant or provision relating to any outstanding bonds or indebtedness because there is no evidence in the record to the contrary.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THE RECORD AND PRESENTED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL IS CONSISTENT WITH AND NOT IN VIOLATION OF ANY COVENANT OR PROVISION RELATING TO ANY OUTSTANDING BONDS OR INDEBTEDNESS OF THE DISTRICT.

Fourth Factor: Whether the Rate Change Proposal, and all portions thereof, “Does not *impair* the ability of the District to comply with applicable *Federal or State laws or regulations as amended from time to time.*”

Section 7.270(4) of the Charter Plan states that the “[a]ny change in a Rate recommended to the Board by the Rate Commission ... shall be accompanied by a statement of the Rate Commission that the proposed Rate change, and all portions thereof; ... does not impair the ability of the District to comply with applicable Federal or State laws or regulations as amended from time to time....” The Charter Plan states that the Board of Trustees of the District shall accept a Rate Commission Report unless it finds that the report “fails to meet an existing or new standard contained in applicable Federal or State laws or regulations as amended from time to time.” See Charter Plan, § 7.300(b)(4). The same language appears in the Operational Rules indicating that the District shall submit to each member of the Commission information related to direct testimony that may explain “whether and to what extent the Proposed Rate Change is necessary to enable the District to comply with applicable Federal or State laws or regulations as amended from time to time....” See Ex. RC 55, p. 5, § 3(4)(d) (2019).

The phrase “does not impair”, however, is not defined. To interpret the meaning of words used in a statute, usually the words are attributed their plain and ordinary meaning. See Sermchief v. Gonzales, 660 S.W.2d at 688. The commonly understood meaning of words is derived from the dictionary. See Buechner v. Bond, 650 S.W.2d at 613.

“Federal law” means the United States Constitution, all federal statutes and treaties promulgated by Congress, and all federal regulations promulgated by federal agencies, and “state law” means state constitutions, state statutes and regulations, and the concept of state common

law tort actions. See Gorton v. American Cyanamid Co., 533 N.W.2d 746 (Wis. 1995), *cert. denied* 516 U.S. 1067 (1996).

As such, an interpretation of the plain and ordinary meaning of the language “does not impair the ability of the District to comply with applicable Federal or State laws or regulations” would require the Rate Commission to propose a rate that complies with all relevant federal, state, local laws and regulations. The dictionary definition of “impair” means “[t]o diminish the value of.” See Black’s Law Dictionary, p. 767 (8th ed. 2004). See also Webster’s Dictionary, p. 358 (2016 ed.) (to impair means to diminish in quantity, value, excellence, or strength).

Pursuant to the Charter Plan, the District has the authority to propose or recommend a change in wastewater rates, stormwater rates and tax rates or change the structure of any of the foregoing. See Charter Plan, § 7.040.

Capital Improvement and Replacement Program

The District’s Capital Improvement and Replacement Program (the “CIRP”) is the primary driver of the District’s financial plan, representing approximately two-thirds of anticipated expenditures during the rate cycle. See Ex. MSD 1, p. 4-15. The largest components of the CIRP over this period will be capital investment related to capacity improvements in the wastewater system, and sewage sludge incineration. Id. The CIRP includes improvements necessary to comply with the Consent Decree, with permit and regulatory requirements outside of the Consent Decree, and with asset management renewal at the treatment plants. Id.

The CIRP “provides a listing, schedule, and cost of needed repairs, additions, and improvements to the wastewater system to maintain the system in operating order and to ensure the system operates in a manner that complies with all State and Federal Regulatory requirements and the [Consent Decree].” See Ex. MSD 3C, p. 2, ll. 3-6. “The CIRP is needed to

provide the project identification, planned fiscal year and anticipated annual costs associated with system improvements. This will then provide the basis for required annual revenue and resources needed to plan, design, and construct these improvements.” Id., ll. 8-11. The Wastewater CIRP for this rate cycle is set forth in Appendices 7.2.2, 7.2.3, and 7.2.4 of Ex. MSD 1, p. 7-18 – 7-96. The CIRP consists of approximately \$1.6 billion in improvements during the rate cycle, FY 2021 through FY 2024. Id., l. 15. Richard Unverferth testified on behalf of the District that 76.7% of the projects in the CIRP are required for the Consent Decree, 22.4% of projects are required to meet other regulatory requirements, and only 0.9% are not required for either. See Ex. MSD 80A, p. 4, ll. 89-90.

The total cost of the CIRP is approximately \$1.6 billion. See Ex. MSD 69, p. 320, l. 1. Richard Unverferth testified on behalf of the District that “[i]f you break it down, basically in major categories, we have consent decree projects, projects that are not related to consent decree but are regulatory required, and then we have projects that – our projects... are more asset management, just strictly asset management related due to the wear and tear of those systems.” Id., ll. 10-16. Approximately \$1.2 billion is related to the Consent Decree, and approximately \$340 million is required to comply with other Federal and State regulations. Id. at pgs. 320-321, ll. 23-25, 1-4.

Consent Decree

On June 11, 2007, the United States of America, acting at the request and on behalf of the Administrator of the EPA, and the State of Missouri by the authority of the Attorney General of Missouri, filed a claim in the United States District Court for the Eastern District of Missouri against the Metropolitan St. Louis Sewer District captioned United States of America and the State of Missouri v. The Metropolitan St. Louis Sewer District, for injunctive relief and civil

penalties alleging: unpermitted discharges from combined sewer system; violation of the proper operation and maintenance condition in the District's NPDES permits; violation of the backup power condition in the District's NPDES permits; violation of the bypass prohibition condition in the District's NPDES permits; violation of the noncompliance reporting condition in the District's NPDES permits; failure to submit long-term CSO control plan pursuant to Part D.1 of the District's NPDES permits and Clean Water Act § 308 Request; and violation of the general criteria special condition in the District's NPDES permits.

The District executed on July 15, 2011, a Consent Decree with the EPA and the Missouri Coalition for the Environment Foundation. The Consent Decree initially required the District to, over a 23-year period, make \$4.7 billion in investments in the wastewater system to ensure it has adequate capacity and is properly maintained (Asset Management), to eliminate sanitary sewer overflows (SSO), to eliminate, reduce, and control combined sewer overflows (CSO), and to reduce the risk of flooding in the combined sewer area (Cityshed). This multi-decade Consent Decree effort is estimated to cost \$6 billion (in 2018 dollars), with \$1.7 billion appropriated from FY13 through the end of FY19. See Ex. MSD 1, p. 4-15.

In 2018, an amendment to the Consent Decree was agreed to, providing an additional five years for the District to complete its Consent Decree obligations, and rescheduling a number of major CSO tunnels to later years. This was requested by the District to mitigate the rate impact of additional major treatment plant investment in sewage sludge incinerators and air emissions control systems for compliance with the Clean Air Act. See Ex. MSD 3B, p. 4, ll. 23-24; See also Ex. MSD 37A.

The Bissell and Lemay Fluidized Bed Incinerators project replaces incinerators originally constructed in the 1970s. The operation of these incinerators is regulated by USEPA and [Missouri Department of Natural Resources]. 40 CFR Part 62 – Federal Plan Requirements for Sewage Sludge Incineration Units

Constructed on or Before October 14, 2010 (SSI Rule) was finalized in June, 2016, and required new Maximum Achievable Control Technology (MACT) standards to be included in the Bissell and Lemay plant operating permits... The District's second material amendment to the Consent Decree was negotiated to financially accommodate the construction of new fluidized bed incinerators, by delaying a number of major Consent Decree tunnel projects. This Consent Decree amendment states 'the Parties agree that this proposed Amendment is necessary because MSD currently incinerates 68,000 tons of sewage sludge annually, utilizing multiple hearth incinerators. The Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or before October 14, 2010, set forth at 40 C.F.R. Part 62, Subpart LLL ('SSI Rule'), issued by EPA in 2016, require MSD to replace its multiple hearth incinerators. The replacement of these incinerators will occur in fiscal years 2021-2026 timeframe and is estimated to cost approximately \$360 million in 2017 dollars.'

See Ex. MSD 80A, pgs. 1-2, ll. 26-42.

The projects which the District contends are required to comply with the Consent Decree are set forth in Appendix 7.2.2 of the Rate Change Proposal, Ex. MSD 1, pgs. 7-18 – 7-90. See also Ex. MSD 56B.

Non-Consent Decree Regulatory Requirements

The projects in the CIRP which are not required by the Consent Decree, but are required due to other regulatory requirements, are set forth in Appendix 7.2.4 of Ex. MSD 1, pgs. 7-92 – 7-96. See also Ex. MSD 56D. Many of these projects relate to the Bissell Point and Lemay Wastewater Treatment Plants. The District holds permits to operate the two plants. See Ex. MSD 89B. See also Ex. MSD 89C. These permits are issued by the Missouri Department of Natural Resources pursuant to Chapter 643, Missouri Revised Statutes and the Federal Clean Air Act. Construction funding for the fluidized bed incinerators is budgeted for FY 2023, FY 2024, and FY 2025. See Ex. MSD 80A, p. 2, ll. 42-43.

All other projects in the CIRP (those not required for regulatory compliance or Consent Decree compliance) are set forth in Appendix 7.2.3. of the Rate Change Proposal, Ex. MSD 1, p. 7-91. See also Ex. MSD 56C.

Deferring Projects

Intervenor MIEC proposes to defer some projects in the CIRP, which it claims can be done without jeopardizing compliance with the Consent Decree or other regulations. “[C]ertain major capital investments in FY 2023, and FY 2024 more specifically, have not been shown to be needed for the EPA Consent Decree or any other way that MSD does not have the discretion to levelize these over the entire forecast period.” See Ex. MIEC 73, p. 16, ll. 13-16. “[T]here are several very large capital programs that could be deferred for a few years, in an effort to produce an annual level of CIRP spending during the forecast period and several years immediately following it.” Id., ll. 20-22.

MIEC proposes adjusting the amount of CIRP spending in FY 2023 and FY 2024 by \$70 million for each year, and increase the proposed spending in FY 2025 and FY 2026 by the same amount. See Ex. MIEC 83, pgs. 4-5, ll. 11-14 and 1-2. “The actual selection of which projects could be deferred can be left up to MSD Staff, which can be managed in a way which meets its Consent Decree (‘CD’) obligations, other regulatory obligations, and manage impacts on wastewater rates.” Id. at p. 5, ll. 5-7. MIEC suggests that the District negotiate an amendment to the Consent Decree to permit it to move projects out of the CIRP. “[I]t might be possible to negotiate an extension in the permitting with the EPA to allow them a little more flexibility to try to spread out this annual level of CIRP spending.” See Ex. MSD 91, p. 164, ll. 1-4.

MIEC argues that “[t]here are hundreds of projects that are being undertaken during the CIRP period, and it doesn’t take many smaller projects being shifted to create a real impact on the ratepayer.” See Ex. MIEC 98, p. 4. “MIEC supports MSD’s obligations to meet these regulatory and consent decree obligations. However, MIEC does believe that MSD has not adequately established that many of its purported deadlines are indeed required by law.” Id.

The District asserts that it lacks discretion to move projects out of the CIRP without jeopardizing compliance with the Consent Decree or other regulations. “The wastewater CIRP is primarily composed of projects required to comply with the [Consent Decree] or other regulatory requirements.” See Ex. MSD 3C, p. 2, ll. 18-19.

Susan Myers, the District’s General Counsel, testified that the “District is subject to an array of Federal and State environmental laws concerning such things as discharge and effluent levels, each of which carry with them the imposition of financial fines of various amounts. Administration of the Federal Clean Water Act has been delegated to the Missouri Department of Natural Resources (“MDNR”) by the EPA. The District is regulated by the MDNR to ensure compliance with the requirements established under the Clean Water Act. It is critical to note the proposed rate change is needed to provide the District with the funds necessary to address the aging wastewater system and resulting wet weather impact. The Clean Water Act provides for statutory penalties up to \$50,000 per violation per day. Failure to meet the requirements imposed at the Federal and State level would be extremely burdensome financially and could directly hamper or even thwart the efforts of the District.” See Ex. MSD 3B, pgs. 2-3, ll. 24 & 1-11. “Therefore, the proposed rate change is necessary to meet legal requirements in that the failure to construct mandated projects or properly maintain existing lines and facilities bring with them the possibility of immediate and direct legal and financial consequences.” Id. at p. 3, ll. 14-17.

When asked “If the proposed rate change is not implemented, will the District be able to construct all of the projects required by the Consent Decree (CD)?” Richard Unverferth’s response was “No.” See Ex. MSD 3C, p. 3, ll. 4-6. The Fluidized Bed Incinerator projects, which MIEC suggested that the District consider moving out of the CIRP, could not be removed from the CIRP without jeopardizing the District’s NPDES permits. See Ex. MSD 80A, p. 1, ll. 9-24.

“MSD’s position is that the existing incinerators will be in violation of the law without maintenance. Under the SSI Rule maintenance repairs are not an option, and the units have to be replaced. MSD committed to the EPA to follow the law and replace the incinerators beginning construction in 2023 as a condition of a [Consent Decree] amendment.” See Ex. MSD 95, p. 8.

The District believes the only project large enough to have an impact is the incinerator project, which was delayed in the Consent Decree amendment so the District could maintain compliance with air quality regulations and mitigate rate impact on customers. See Ex. MSD 88A, p. 4. In Ex. MSD 88A, the District provided the difference in user charge revenues and monthly bills if \$70 million of budgeted CIRP was deferred from both FY 2023 and FY 2024 to FY 2025 and FY 2026. The difference in a Typical Single Family Residential bill based on 6 Ccf per month would result in no change in FY 2021, a decrease of 0.8% in FY 2022, a decrease of 1.5% in FY 2023, and a 2.3% decrease in FY 2024.

While it may be theoretically possible to move a certain few projects which are not required by the Consent Decree or other regulations out of the CIRP, the Rate Consultant noted that the District must weigh the pros and cons of moving such project. Nicole Young of Lion CSG testified that the “prioritization of a CIRP can be complicated, so it is difficult to have a project-by-project analysis of timing of the program. There may be extenuating circumstances that may move a project forward or backward in a schedule, such as association with another project, risk of failure, or coordination of projects with other utilities.” See Ex. RC 82, p. 6, ll. 20-23. The District stated in response to a discovery request that “these [non-Consent Decree, non-regulatory] are very critical. They will allow for the repair, replacement, and rehabilitation of deteriorated closure gates and gate structures at several 50 plus year old facilities. The District along with the City of St. Louis is required by the U.S. Army Corp of Engineers to maintain

these facilities and the floodwall. This Mississippi River Floodwall system provides flood protection for the City of St. Louis and its downtown area. The economic damage to businesses, homes, and institutional properties that would occur if floodwall protection fails would be substantial.” See Ex. MSD 77A, pgs. 4-5.

It is the position of the Rate Consultant that the projects within the CIRP are appropriate. See Ex. RC 82, p. 6, ll. 3-4. Nicole Young of Lion CSG testified that the “majority of the projects – about [\$]1.1 billion – are consent decree related. Another – my estimation is [\$]340 million are regulatory based. It leaves very little room for adjustment within the CIRP.” See Ex. MSD 79, p. 118, ll. 13-17. Regarding the small percentage of projects not required for the Consent Decree or other regulatory requirements, these projects are comprised of “the Floodwall ORS pump station system, which is the main system that protects the City of St. Louis from flooding. The Floodwall ORS system is over 50 years old, which is the end of its useful life. The risk of moving these asset management projects further into the schedule exceeds the cost-benefit of the 1% reduction in the CIRP.” See Ex. RC 82, p. 6, ll. 11-15. Ms. Young testified that “there appear to be four projects [that are required by the Consent Decree] that could be moved from the FY 2021 through FY 2024 CIRP into a future budget cycle. These projects are 12088, 11833, 12334, and 12350 [listed in Appendix 7.2.2 of Ex. MSD 1, p. 7-18 – 7-90]. MSD may have reasons, beyond regulatory deadlines, for pulling these projects forward into this CIRP. Project 12350 appears to have a related pump station project in FY 2021 through FY 2024 CIRP, so it may be more cost-effective to build these at the same time. Project 12334 is a phased project, which may need to be adjusted for the schedule of the overall project. The four projects in question amount to less than 2% of the CIRP.” See Ex. RC 82, p. 7, ll. 4-11.

When asked about the deferral of \$70 million a year for FY 2023 and FY 2024, the Rate Consultant testified “the capital program is not all cash funded, it’s debt funded. So in debt financing, capital improvement program, that’s spreading the cost of that capital program over a 30 year period of time for all of that portion that is debt funded. So when you shift costs from [FY2023] and [FY2024] into [FY2025] and [FY2026]... it does allow some downward movement of the rates, but not in a material way.”⁸ See Ex. MSD 91, p. 194, ll. 9-21.

The Rate Commission believes that the evidence presented in the record indicates that the District has little discretion to move projects out of the CIRP without jeopardizing compliance with the Consent Decree or other regulatory requirements, and even if the few projects that might be able to be moved were moved, it would have minimal, if any, effect on the wastewater rates.

⁸ During deliberations, the Rate Consultant provided the Rate Commission with actual dollar amounts based on the percentages the District provided in Ex. MSD 88A. The Rate Consultant concluded the dollar amounts were “minimal.”

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL OF THE FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL DOES NOT IMPAIR THE ABILITY OF THE DISTRICT TO COMPLY WITH APPLICABLE FEDERAL AND STATE LAWS OR REGULATIONS AS AMENDED FROM TIME TO TIME DURING THIS RATE CHANGE PROPOSAL CYCLE.

Fifth Factor: Whether the Rate Change Proposal, and all portions thereof, “Imposes a *fair and reasonable* burden on all classes of ratepayers.”

The Charter Plan does not define the terms or phrases utilized as the criteria governing the rate. As such, to interpret the meaning of words used in a statute, usually the words are attributed their plain and ordinary meaning. See *Sermchief v. Gonzales*, 660 S.W.2d at 688. Similarly, an interpretation of words in their plain and ordinary meaning can be performed on the words and phrases utilized in the Charter Plan. The commonly understood meaning of words is derived from the dictionary. See *Buechner v. Bond*, 650 S.W.2d at 613.

According to Black’s Law Dictionary, the term “fair” is defined as “impartial; just; equitable; disinterested. Free of bias or prejudice.” See Black’s Law Dictionary, p. 673 (8th ed. 2004). See also Webster’s Dictionary, p. 257 (2016 ed.) (fair is just).

“Reasonable” is defined as, “fair, proper, or moderate under the circumstances.” See Black’s Law Dictionary, p. 1293 (8th ed. 2004). See also Webster’s Dictionary, p. 600 (2016 ed.) (reasonable is being in the bounds of reason: not extreme).

Similar language of this fifth factor can be found in § 7.300 of the Charter Plan, which indicates that the Board of Trustees shall accept a Rate Commission Report unless it finds that the report “imposes an unfair or excessive burden on one or more classes of ratepayers.” See Charter Plan, § 7.300(b)(5).

Further, this language appears in the Restated Operational Rules of the Rate Commission whereby the District shall submit to each member of the Commission information related to direct testimony that may explain “why the Proposed Rate Change is necessary, fair and reasonable” and “why the burden imposed on each class of ratepayers by the Proposed Rate Change is fair and reasonable, including whether and how cost of service considerations, cost

causation principles, customer impact data, economic development considerations, environmental effects and other factors have not been factored into such determination.” See Ex. RC 55, p. 5, §§ 3(4)(a) and 3(4)(e) (2019). However, neither of these provisions are defined nor explained.

The District’s rates and rate models have been exhaustively reviewed by the courts in Zweig v. Metro. St. Louis Sewer Dist., 412 S.W.3d 223; Ring v. Metro. St. Louis Sewer Dist., 969 S.W.2d 716 (Mo. banc 1998), *overruled by* Zweig, 412 S.W.3d 223; Missouri Growth Ass. v. Metro. St. Louis Sewer Dist., 941 S.W.2d 615 (Mo. App. E.D. 1997); Beatty v. Metro. St. Louis Sewer Dist., 914 S.W.2d 791 (Mo. banc 1995), *overruled by* Zweig, 412 S.W.3d 223; and Beatty v. Metro. St. Louis Sewer Dist., 867 S.W.2d 217 (Mo. banc 1993). However, none of the cases have considered whether the rates charged by the District are fair and reasonable.

On several occasions, Missouri courts have discussed whether a rate is fair or reasonable in utility rates cases where a class of ratepayers alleged that the Public Service Commission (“PSC”) approved unlawfully discriminatory rates. For instance, in State of Missouri at the Relation of Nancy Dyer and J. Raymond Dyer v. Pub. Serv. Comm’n., 341 S.W.2d 795, 796 (Mo. 1960), the PSC approved a schedule of rates which allowed for higher percentage increases in electric utility rates for residential and commercial customers than for industrial customers. In this case, the rate for residential customers was increased 8.6% while the rate for industrial customers was increased 5.5%. Id. at 799. The PSC found that the higher increase, imposed upon residential and commercial customers rather than industrial customers, was due to larger capital expenditures such as the use of air conditioning, installation for hundreds of miles of heavier wires and transformers, and higher labor costs, incurred on behalf of the residential customers. Id. As such, the court found that the rates were fair and no unlawful discrimination had occurred.

Several months later, the Missouri Supreme Court heard R.P. Smith, et al. v. Pub. Serv. Comm'n., 351 S.W.2d 768 (Mo. 1961). In this case, the PSC approved an order which allowed electric utility rates to be increased a greater percentage for commercial than residential customers. Id. at 771. The Missouri Supreme Court affirmed the PSC's order and found that the fact that there was a larger increase applied to one class as opposed to another does not alone indicate that the rate is unfair or unreasonable. Id. Further, the Court found that there is no discrimination where a reasonable classification has a direct correlation to the differences in the situation of the customers or the furnishing of the services whereby valid reasons exist to justify the imposition of varying rates. Id.

Factors which supported the differential increase included the fact that the demand from industrial users is often high, the use is often occasional or inconsistent, and the use is often for only a portion of the day or a short duration during the year. Id. at 772. With this, the maintenance of the facilities to meet variable and often demanding loads was unprofitable to the utility. Id. As such, the rates were increased disproportionately to the disfavor of industrial customers to account for such costs. The Court stated that because there was a larger increase applied to one class as opposed to another does not alone indicate that the rate is unfair or unreasonable or that discrimination occurred. Id. at 771. Further, the Court found that there is no discrimination where a reasonable classification has a direct correlation to the differences in the situations of the customers or the furnishing of the services whereby valid reasons exist to justify the imposition of varying rates. Id. This increase, consequently, was held to be a reasonable one. Id. at 772-773.

However, in State of Missouri ex rel. DePaul Hosp. School of Nursing v. Public Service Comm'n., 464 S.W.2d 737, 740 (Mo. App. 1970), the Missouri Court of Appeals found the

PSC's order approving a rate to be unlawfully discriminatory. In this case, the evidence demonstrated that the respondent was charged a substantially higher rate for the operation of its nursing home than others similarly situated who received a substantially lower rate, known as the hotel-motel rate. The court found that "it was said that arbitrary discriminations alone are unjust, but if the difference in rates be based upon a *reasonable and fair* difference in conditions which justify a different rate, it is not unjust discrimination." Id. at 740 (*quoting State ex rel. City of St. Louis v. Pub. Serv. Comm'n.*, 36 S.W.2d 947, 950 (Mo. 1931) (emphasis added)).

In State of Missouri ex rel. City of Oak Grove, et al. v. Pub. Serv. Comm'n., 769 S.W.2d 139 (Mo. App. W.D. 1989), the Missouri Court of Appeals found the PSC's order, which allowed a telephone company to provide extended area service in one metropolitan area when it was not provided in other suburban exchanges approximately the same distance from the central exchange, to be "lawful and reasonable." Id. at 141. In this case, the court held that discrimination does not exist merely because the distance between a central exchange and service complainant's exchange is approximately the same. Id. at 143. The court reasoned that the PSC was entitled to take into account factors such as population density and gross territory area when making these determinations. Id.

The PSC regulates telephone and telegraph companies (Mo. Rev. Stat. § 392.200 (2016)) and gas, electric, water, heating and sewer companies (Mo. Rev. Stat. §§ 393.130, 393.140 (2016)). Generally, the PSC uses the standard "just and reasonable" in determining whether a proposed rate is valid.

The standard of review for telephone and telegraph companies provides that "all charges made and demanded by any telecommunications company for any service rendered or to be rendered in connection therewith shall be *just and reasonable* and not more than allowed by law

or by order to decision of the commission.” See Mo. Rev. Stat. § 392.200 (2016) (emphasis added).

The standard of review for gas, electric, water and sewer corporations provides that the PSC has the power to “determine and prescribe the *just and reasonable rates* and charges thereafter to be in force of the service to be furnished, notwithstanding that a higher rate or charge has heretofore been authorized by statute, and the just and reasonable acts and regulations to be done and observed.” See Mo. Rev. Stat. § 393.140(5) (2016) (emphasis added).

The PSC’s role in the electric utility resource planning “shall be to provide the public with energy services that are safe, reliable and efficient, at *just and reasonable rates*, in a manner that serves the public interest.” See 4 CSR 240-22.010(2) (emphasis added).

Whether a rate in effect at any given time is “just and reasonable” depends upon many facts and only can be determined after a rather extended investigation and study. See State of Missouri ex rel. Laclede Gas Co. v. Pub. Serv. Comm’n., 535 S.W.2d 561 (Mo. App. 1976). A reasonable rate is a question of fact, calling for the exercise of common sense and sound judgment, not bound by any hard and fast rule, nor limited to any general formula. State ex rel. Office of Pub. Counsel v. Pub. Serv. Comm’n., 367 S.W.3d 91, 107 (Mo. App. S.D. 2012); see also State ex rel. Associated Natural Gas Co. v. Pub. Serv. Comm’n., 706 S.W.2d 870, 880 (Mo. App. W.D. 1985); Ark. Power & Light Co. v. Pub. Serv. Comm’n., 736 S.W.2d 457, 462 (Mo. App. W.D. 1987).

No writer whose views on public utility rates command respect purports to find a single yardstick by sole reference to which rates that are reasonable or socially desirable can be distinguished from rates that are unreasonable or adverse to the public interest. A complex of tests of acceptability is required, just as would be the case with the tests of a good automobile, a good income-tax law, or a good poem.

State ex rel. City of Lake Lotawana v. Pub. Serv. Comm'n, 732 S.W.2d 191, n.1 (Mo. App. W.D. 1987) (*quoting* J. Bonbright, Principles of Public Utility Rates 67 (1961)).

In Laclede Gas, the Missouri Court of Appeals analyzed the issue of just and reasonable rates when the gas company argued that its existing approved rates were so unreasonably low as to be confiscatory. 535 S.W.2d at 569. Laclede argued that the rates must be sufficient to produce a fair return on the property. Id. The court determined that “[e]very utility does have an undoubted constitutional right to such a fair and reasonable return, and thus is a continuing right which does not cease after beginning rates are initially determined.” Id.

The court found that whether the rates in effect are just and reasonable depends upon many facts and can only be determined after rather extended investigation and study. Id. at 570.

The United States Supreme Court has analyzed the standard of “just and reasonable rates” under the Natural Gas Act in two relevant cases. See Fed. Power Comm’n. v. Nat. Gas Pipeline Co., 315 U.S. 575 (1942); Fed. Power Comm’n. v. Hope Nat. Gas Co., 320 U.S. 591 (1944). In Natural Gas Pipeline, the Court, in determining whether the rate was just and reasonable, stated:

The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. Agencies to whom the legislative power has been delegated are free, within the ambit of their statutory authority, to make the pragmatic adjustments which may be called for by particular circumstances. Once a fair hearing has been given, proper findings made and other statutory requirements satisfied, the courts cannot intervene in the absence of a clear showing that the limits of due process have been overstepped. If the commission’s order, as applied to the facts before it and viewed in its entirety, produces no arbitrary result, our inquiry is at an end.

315 U.S. at 586.

The Supreme Court provided further guidance in Hope Natural Gas, when it stated that rates cannot be made to depend upon the fair value, which is the end product of the process of

rate-making and not the starting point, when the value of the going enterprise depends on earnings under whatever rates may be anticipated. 320 U.S. at 601. The Supreme Court further provided that under the statutory standard that natural gas rates shall be “just and reasonable,” the result reached, and not the method employed, is controlling. Id. at 602. If the total effect of the natural gas rates fixed by the Federal Power Commission cannot be said to be unjust and unreasonable, judicial inquiry under the Natural Gas Act is at an end. Id.

Debt Service Coverage Ratio / Debt-Cash Mix of CIRP Funding

The District’s debt agreements require a minimum senior bond debt [service] coverage (“DSC”) ratio of 1.25x and a minimum total bond debt [service] coverage ratio of 1.15x. See Ex. MSD 3F, p. 7, ll. 17-24. To maintain the District’s high credit ratings, the Rate Change Proposal has been set to achieve a minimum DSC of 2.5x for senior bonds and 1.8x for total bonds. Id. The District’s Rate Change Proposal provides that the CIRP will be funded through a ratio of approximately 40% rate revenue and 60% debt. Id. at p. 3, ll. 15-17.

The District maintains there is no formal financial policy for debt/cash funding of the CIRP and that the 60/40 ratio results from the District’s target of 1.8x DSC ratio. Mr. Snoke testified, “[t]he roughly 60/40 Debt/PAYGO funding of the CIRP in MSD’s proposal is an outcome of the many factors being balanced to fully fund MSD Operations and the CIRP in a way that minimizes rate increases and adheres to MSD actual financial policies, like holding a minimum Operating Reserve of 60 days.” See Ex. MSD 80F, p. 5, ll. 9-20. “The mix has ranged from 80/20 some years to approximately 70/30 over the last wastewater rate process, averaging 75/25 over time, but it is not correct to say that 75/25 is a formal policy. Overall wastewater user charges for this cycle are actually projected to be lower with the 60/40 debt/PAYGO mix than

they would be with the historical average of 75/25 due to the higher projected debt service, and resulting DSC ratios, associated with a 75% debt/25% PAYGO mix.” Id.

Bethany Pugh testified on behalf of the District that the “financial planning model assumed the District managed its financial obligations to maintain AA category credit ratings.” See Ex. MSD 3G, p. 4, ll. 7-16. “Based on these parameters, we then analyzed the District’s historical ratio of debt to cash funding for CIRP (75%/25% debt to equity from FY2004-FY2018) and attempted to maintain a ratio consistent with this, in light of future CIRP funding needs and revenue increase parameters. As a result the debt to cash ratio for the rate period FY2021-FY2024 is approximately 60% debt to 40% cash. This ratio includes both revenue bonds and any state revolving fund (‘SRF’) obligations of the District.” Id.

Intervenor MIEC presented the testimony of Michael Gorman, who proposes that the District target DSC coverage of approximately 1.6x, which would be in line with the District’s 2011 and 2015 rate proceedings. See Ex. MIEC 73, p. 3, ll. 8-12; p. 10, ll. 3-5. MIEC notes that in the District’s “last rate case, its earned DSC was much higher than the target DSC used for ratemaking purposes. MSD explained that rate projections used in 2015 over-recovered its cost of service.... By understating miscellaneous revenues, and overstating operating expenses and debt service costs, MSD’s actual earned DSC was much higher than that used to set rates. The Rate Commission should again be careful to ensure that MSD is not again overstating operating expenses and debt service costs, and understating revenue collections from non-wastewater service charges.” See Ex. MIEC 73, pgs. 10-11, ll. 19-24, 2-6.

Mr. Gorman stated that the proposed 40/60 cash/debt ratio relies too heavily on rate revenue and that the District should consider a funding policy closer to 25% cash and 75% debt. See Ex. MSD 91, p. 192, ll. 7-10. Mr. Gorman stated that “previously, the District developed a

revenue requirement using a CIRP funding policy of 75% debt and 25% PAYGO (equity) funding from the period 2004 through 2018.” See Ex. MIEC 73, p. 7, ll. 6-10. Mr. Gorman noted that the Rate Commission approved a 25/75% ratio in the 2007 rate proceedings. See Ex. MIEC 73, p. 12, ll. 1-12. Mr. Gorman testified at the technical conference that a 30/70 cash/debt ratio would be appropriate here. See Ex. MSD 79, p. 39, ll. 12-18.

It is the position of the Rate Consultant that MIEC’s position of targeting a 1.6x DSC ratio to achieve a roughly 30/70 cash/debt ratio may place MSD at risk of a rating downgrade. “Furthermore, based upon a review of Mr. Gorman’s rate model, while he has testified that MSD’s policies should be adjusted to those used in prior rate proposals, his financial plan results in debt service coverage that is not materially different than MSD’s proposal, at 1.76x at the end of FY 2024, as compared to MSD’s rate model of 1.81x. In addition, the reduction in cash financing compared to MSD’s proposal appears to be primarily the result of the assumed lower interest rates on projected bonds.” See Ex. RC 81, p. 3, ll. 9-16. The Rate Consultant testified that the current policy of 1.8x is consistent with what rating agencies have indicated they expect to see. “Specifically, Moody’s considers debt service coverage of 1.7x – 2.0x to be consistent with Aa rated utilities. Fitch indicated in its report related to MSD’s 2017 rating that MSD would be at risk of a downgrade if debt service coverage fell below what they are expecting. In their report they indicated that MSD’s debt service coverage was solid at 1.8x in 2017 and was projected at 1.9x in FY 2019-20. Fitch further stated that ‘any deterioration in financial performance beyond the projected levels would be expected to result in a negative rating action.’” Id. at p. 4, ll. 9-16.

MIEC also notes that the District’s targeted DSC is not always the same as the earned DSC. “[I]n MSD’s last two rate cases, [MSD] set wastewater rates to achieve a minimum DSC

of approximately 1.6x. However, in all years that wastewater rates were in effect, MSD earned a DSC above the 1.6x DSC minimum... [W]hile MSD's rate-setting policy over the last three rate cases has been a minimum DSC of 1.6x-1.9x, it has consistently earned a higher DSC of over 1.9x or higher from the wastewater rates approved in its last two rate cycles." See Ex. MIEC 83, pgs. 9-10, ll. 17-21, 1-5. MIEC attributes this discrepancy to MSD "overstat[ing] operating expenses in its 2015 rate model by about \$43.2 million, and overstated debt service costs by approximately \$26.9 million." Id. at p. 11, ll. 6-8. MIEC concludes that if MSD sets rates to achieve a 1.8x DSC, "it is likely MSD will earn a DSC higher than its actual earned DSC over the last several years. There is simply no sound basis to increase rates to wastewater customers to accomplish an increase in the DSC, when all the evidence in this case shows that the rate-setting practice used to set rates for MSD over the last two rate cycles, and actual earned DSC have supported its very strong investment grade bond rating." Id., ll. 16-22.

The Rate Consultant further testified that "[w]hile MSD's debt service coverage policy in the past was 1.6x, it is appropriate for utilities to regularly evaluate financial policies to reflect current conditions and rating agency expectations. As utilities become more heavily debt burdened, rating agencies will expect to see the growth in outstanding debt mitigated to the extent possible with reasonable debt service coverage, which will provide cash for cash financing a portion of the capital program." See Ex. RC 81, p. 4, ll. 2-7. Ms. Lemoine noted that the 2.5x and 1.8x ratios were valid and important metrics, particularly in light of the District's current and anticipated future heavy debt profile. See Ex. RC 70, p. 21, ll. 2-4.

Rate Consultant Pamela Lemoine testified that the District's proposed 40/60 cash/debt ratio is "reasonable and cost effective." Ms. Lemoine also noted that "at this point in time for the District, debt service coverage really is driving the financial plan, not the cash debt mix. The

cash debt mix is an outcome of achieving the debt service coverage that's required in light of the currently CIRP funding level." See Ex. MSD 79, p. 79, ll. 5-10. Ms. Lemoine acknowledged that "[t]he District's current Rate Proposal provides for cash financing of approximately 37%, which exceeds the District's historical cash versus debt funding mix of 25%/75%," however, Ms. Lemoine believes this level of cash financing "is consistent with the 25% to 30% cash financing of capital that is deemed an industry accepted best practice and is in practice in other peer utilities." See Ex. RC 70, pgs. 13-14, ll. 22-23 & 1-4. Ms. Lemoine testified that "the debt cash mix that is targeted is not a standalone policy that can be achieved in a vacuum. It's a function of a utility's outstanding debt, and the impact that the debt service coverage has on revenue that's generated to meet that debt service coverage level, as well as the size of the capital program... if the capital program changes, all things being equal, that cash generated will result in a different percentage, just from the basic math." See Ex. MSD 79, pgs. 85-86, ll. 22-25 & 1-6.

The Rate Commission notes that a minimum total DSC of 1.6x is in line with prior practices of the District, and that the District's earned DSC has exceeded the District's targets in the last two rate cases. While the Rate Commission acknowledges the District's, and the Rate Consultant's, concerns regarding the risk of a ratings downgrade, the Rate Commission believes that the record does not clearly reflect that the District's revised policy of a 1.6x minimum total DSC would result in a ratings downgrade. Further, the record does not reflect that a ratings downgrade would adversely affect ratepayers or would increase borrowing costs. Therefore, for the Rate Change Proposal to be fair and reasonable to all classes of ratepayers, the Rate Commission believes that the District's Board of Trustees should maintain the senior debt service coverage ratio at a minimum of 2.5x and consider reducing the minimum total debt

service coverage ratio to 1.6x, and modify the 40/60 cash/debt mix as necessary, to mitigate the impact on ratepayers.

Gradualism of Rate Increases

The Rate Consultant expressed concern that “the District is projecting a potential rate increase of 7.2% in FY 2025 to maintain minimum policy levels. This increase is nearly double the indicated annual rate increases for FY 2021 through FY 2024.” See Ex. RC 70, p. 15, ll. 7-9. “This type of a higher increase right at the beginning of the next rate setting period could cause bill impact volatility. A series of annual revenue adjustments in FY 2021 through FY 2024 that mitigates such a sudden higher spike in revenue adjustments, becoming necessary in FY 2025, should be considered.” See Ex. RC 70, p. 7, ll. 15-18. Ms. Lemoine noted that costs and interests rates for this rate cycle have been lower than what was anticipated during the last rate proceeding. See Ex. MSD 79, p. 84, ll. 2-5. However, “I think there is a risk of assuming that that trend will continue to become even more apparent in the future. In fact, I think there’s probably a risk – more of a risk at this point in time the other way; that three or four years from now, interest rates could be – or inflation rates could be higher, the construction industry could be in a different position, where bids are coming in higher. So I really don’t agree that you can extrapolate the fact that we came in lower this time, that that would happen again in the future. It’s a risk.” Id., ll. 11-22. “[W]ith slightly higher revenue increases in this [rate cycle], that spike in 2025 could be mitigated.” See Ex. MSD 79, p. 89, ll. 9-11.

The District’s position is that the “rate increases shown for FY25 are for illustrative purposes only,” which Ms. Lemoine acknowledged. Id. at p. 83, ll. 8-10. Marion Gee testified on behalf of the District that “[t]he raw data used to calculate the projected rate increase in FY 2025 has not been subjected to the same level of scrutiny and analysis that was conducted to calculate

rates during FY 2021 thru FY 2024. Also, given the District’s history of projected rate increases beyond previously proposed four-year rate cycles being less than expected, it would be prudent to not increase rates in the current four year cycle to mitigate a potential spike in rates in FY 2025.” See Ex. MSD 80D, p. 3, ll. 60-64. “For instance, we didn’t go through and try to – we didn’t have data, for instance, for inflation rates that would go out that far over a 16-year period. We didn’t apply those rates in the rate model. We didn’t go through, for instance, and try and look at our capital program and go into the same level of scrutiny that we made in terms of trying to prioritize projects that were placed in FY25 or in FY30 that we may have the ability to either – we may have to accelerate some stuff or change things out. We didn’t go through that level of exercise because, again, our focus was just on what we were asking the Rate Commission to approve.” See Ex. MSD 91, p. 120, ll. 14-25.

The Rate Commission notes that the rates proposed during this rate cycle, FY 2021 through FY 2024, are significantly less than what was anticipated during the 2015 rate change proceedings, which set rates for FY 2017 through FY 2020. See Ex. MSD 1, p. 7-118. The Rate Commission finds that since the potential rate increases shown for FY 2025 and beyond are for illustrative purposes only and have not been thoroughly scrutinized, it would not be appropriate to modify the rates proposed in this Rate Change Proposal to mitigate a forecasted increase in FY 2025 which may or may not come to fruition.

Infiltration/Inflow “I/I”

Infiltration and Inflow (“I/I”) is water entering the wastewater system from illegal roof and foundation drains, groundwater infiltration through sewer service pipe and main joints, and stormwater runoff or inflow from the combined sewer system. See Ex. MSD 3H, p. 6, ll. 14-16. The District estimates that I/I is approximately 59% of the total wastewater flow reaching the

treatment plants on an annual basis. Id. at p. 7, ll. 1-2. In the most recent rate case, I/I was estimated to be approximately 50%. The District cited to a 2005 study by CDM to determine that that 40 percent of the total I/I is related to individual customers and 60 percent is related to the District's collection system infrastructure. Id. at p. 8, ll. 2-12. William Stannard testified on behalf of the District that "the amount of I/I costs to be recovered directly from wastewater service charges is assigned to customer classes on the premise that 40 percent of the total cost is distributed on the basis of the number of customers within each class, with the remaining 60 percent allocated on the basis of contributed wastewater volume. These percentage allocations were adopted in the District's 2007 Wastewater and Stormwater Rate Change Proposal and have been used ever since." Id. See also Ex. MSD 1, p. 4-35, Table 4-16.

MIEC objects to the District's allocation of 60% of the cost to volume. Michael Gorman testified on behalf of MIEC that "I believe it is not appropriate to allocate 60% of I/I costs on volume. Specifically, as noted by MSD, I/I costs are incurred based on customer connections, and leaky collector systems, manholes and pumping stations. As such, the actual collection system is driven by both number and location of customers on the system and volumetric throughput. As such, I recommend allocating I/I costs on the basis of 50% customer and 50% volume." See Ex. MIEC 73, p. 20, ll. 7-13. MIEC notes that the study relied upon by the District relied upon data from 2001-2003, and that "there have been significant changes to MSD's system since this study was completed. In particular, MSD has made substantial improvements to its wastewater system to comply with the requirements of the Consent Decree. Additionally, I/I costs are largely created through the collection infrastructure and geographic area, length of pipe, number of lift stations and infrastructure age. It would be more appropriate to utilize an I/I allocation that is more heavily weighted toward the number of customers on the system." Id. at p.

24, ll. 5-12. “Increasing the customer-related component of I/I supports recovering more I/I costs through the fixed customer charges.” See Ex. MIEC 90A, p. 2.

It is the Rate Consultant’s position that “the District’s allocation of costs such as I&I costs between customer and volume has the potential to impose a higher level of cost responsibility on classes with higher wastewater flow volumes...” See Ex. RC 71, p. 6, ll. 4-6. The Rate Consultant agreed with the District that “I&I volume appears to be 59% of the total plant flow volume.” Id. at p. 7, ll. 5-6. With regard to the 2005 study relied upon by the District, “it is not clear to which specific section of that report or to which specific conclusion in that report the District attributes these allocation factors. It is also not clear what specific assumptions used in that report the District deems still valid for this current allocation.” Id., ll. 14-17.

In his surrebuttal testimony, William Stannard testified that “[e]ven though I agree with some of the comments expressed by the Rate Commission’s Consultant and the Intervenor that the analyses used to estimate the causes and responsibility for I/I occurring within the MSD wastewater collection system may change over time, I believe that the [40% customer / 60% volume] allocation used remains reasonable. I believe that it is important to note that the nature of wastewater collection systems and the wide range of causes for the level of I/I do not provide a foundation for an engineering analysis of sufficient detail to support an exact determination of relative responsibility for I/I. As such the allocation factors used by rate consultants throughout the United States and incorporated within guidance documents are typically based on judgement more so than engineering analyses and testing.” See Ex. MSD 80C, p. 1, ll. 6-15. He noted that Kansas City uses the proposed 40% customer / 60% volume I/I ratio that the District proposes in the Rate Change Proposal. Kansas City is “a similar utility in terms of geographic location, topography, climate, and size of service area.” Id., ll. 20-21.

The Rate Commission believes that the concerns of the Rate Consultant and Intervenor MIEC regarding the I/I allocation of roughly 60% to volume and 40% to users merits further examination. The 2005 study which the District relied upon was based on data collected from 2001 through 2003, and does not account for the changes to the District's system since 2003. Susan Myers stated that "MSD is committed to performing a new I&I allocation study prior to the next rate proposal. The new report will take into account the impact of the removal of 189 sanitary sewer overflows [and] 85 percent removal since the start of the consent decree." See Ex. MSD 96, p. 12, ll. 11-16. The District's commitment to conduct a new study prior to the next rate change proceedings is appropriate.

The Rate Commission recognizes that the I/I study is dated and it would have been preferable for the District to have conducted another study prior to these proceedings. However, while acknowledging the Rate Consultant and MIEC's concerns with the I/I allocation, the Rate Commission has determined that the record does not support a modification to this allocation at this time without the new study because there is insufficient data to support a finding that a 50/50 allocation, or an allocation between 50/50 and 60/40, is appropriate. Modifying the I/I allocation would increase the burden on ratepayers by an indeterminate amount. In the absence of updated data supporting a different I/I allocation, the Rate Commission believes it cannot adjust the allocation, thereby increasing the burden on customers. As such, the Rate Commission believes that the I/I allocation proposed in the Rate Change Proposal is supported by the record, and is, unless and until data is presented which supports a different allocation, fair and reasonable. The Rate Commission proposes that a new I&I study be conducted as expeditiously as possible, and that the Rate Commission be advised of its conclusions as soon as they are available.

Extra Strength Surcharges

The Rate Change Proposal proposes significant increases in extra strength surcharges. Tom Beckley testified on behalf of the District that such increases are warranted because “[t]he cost of service analysis indicates a significant increase in the surcharge rates for BOD [Biochemical Oxygen Demand], COD [Chemical Oxygen Demand], and TSS [Total Suspended Solids]. This increase is caused by several factors, most significant is that the capital cost allocated to these functional categories increased by approximately 70% from FY 2017 to the test year of FY 2021 while units of service for BOD and COD decreased by 7% and TSS decreased by 5% over the same time period. In total, these factors result in the increase in the rates that is larger than other rate components.” See Ex. MSD 3I, p. 11, ll. 1-8.

Under the Rate Change Proposal, in FY 2021, the TSS surcharge would increase by 11%, the BOD surcharge would increase by 27%, and the COD surcharge will increase substantially. See Ex. MSD 61A, Q3; See also Ex. MSD 1, p. 4-37, Table 4-18.

MIEC testified that the sharp increase in extra strength surcharge is unreasonable. Michael Gorman testified on behalf of MIEC that “MSD states that the increase is primarily due to the fact that the capital cost allocated to these functional categories increased by approximately 70% from FY17 to the test year of FY21, while the units of service for BOD and COD decreased by 7% and TSS decreased by 5% over the same time period.” See Ex. MIEC 73, p. 29, ll. 4-9. Gorman further testified that “MSD’s capital expenditures related to BOD and TSS are primarily associated with the improvement of operating efficiency of wastewater treatment plants because these improvements are expected to reduce the cost of waste disposal. The capital expenditures associated with these improvements are not directly related to an increase in the

cost of treating wastewater with BOD and TSS strengths in excess of the normal loadings.” Id., ll. 11-16.

The Rate Consultant testified that “moving to cost of service based rates immediately in FY 2021 for Surcharge rates poses a potential for ‘rate shock’ for some customers.” See Ex. RC 71, p. 6, ll. 6-8. The Rate Consultant further testified, “[t]o mitigate any potential ‘rate shock’ on Surcharge customers, the District should consider phasing in to cost of service over at least a two-year time period. Subsequent to the ‘phase-in’ period, the District should also consider increasing all rates, including surcharge rates, during FY 2022 through FY 2024 based on an ‘across the board’ increase approach. The across the board annual increase should be based on the overall system-wide revenue increase required.” Id. at p. 5, ll. 13-18. “The results of the cost of service analysis therefore indicate increases in both TSS and BOD rates that are higher the average system revenue increase. In FY 2022 through FY 2024, the District is again proposing Surcharge rates increase at a level equivalent to the overall projected increase in just the O&M expenses, and not at a level that is aligned with the overall system-wide revenue increase.” Id. at pgs. 8-9, ll. 21-23 & 1-2. “Due to the significant increase in both TSS and BOD rates in FY 2021, the District should consider ‘phasing-in’ the Surcharge rates over at least a two-year period. In addition, rather than increasing Surcharge rates in FY2022 through FY2024 based on the calculated increase in O&M, the District should consider increasing Surcharge rates in a more traditional ‘across the board’ manner, reflecting the overall increase required for system wide rate revenues in each year.” Id. at p. 9, ll. 4-9.

Tom Beckley testified on behalf of the District that while, in concept, an across the board approach could be preferable, “the problem is it ignores the fact that the proposed increase is necessary because these rates were increased at less than an ‘across the board increase’ for fiscal

years 2018, 2019, and 2020 based on what turned out to be an inaccurate assumption that the change in these rates would be driven by operation and maintenance expense more than capital. In other words these customers have received the benefit of what turned out to be an inaccurate assumption for those three years. It should be noted that while an across the board increase for the years 2018, 2019, 2020 would have been closer to the currently proposed rates it too would have been inaccurate and would have increased surcharge rates more than is now necessary, by approximately 13% for TSS and 4% for BOD.” See Ex. MSD 80B, p. 1, ll. 6-15. Mr. Beckley disagreed with MIEC’s contention that the District’s proposed capital expenditures are not directly related to the costs of treating wastewater with higher BOD and TSS than normal wastewater. “The processes being improved at the treatment plants are directly related to removing BOD and TSS from the wastewater flow, so these capital costs are reasonably allocable to BOD and TSS.” Id. at pgs. 1-2, ll. 23-24 & 1.

Marion Gee also testified on behalf of the District that the increases in extra strength surcharges are appropriate because presently, ratepayers are subsidizing surcharge users. “Per our current wastewater proposal, the one that is from FY17 to FY20, from FY17 through FY19, our customers that are not commercial customers that are subject to this surcharge, they are subsidizing that by having to pay \$1.1 million more than they would if that rate would have been distributed to those customers that are subject to the surcharge. So they’re – Again, they’re paying an additional \$1.1 million through FY19 that really should be charged to those customers with the higher wastewater strengths.” See Ex. MSD 91, p. 100, ll. 10-19. “So the \$7.1 million is actually what would be needed to treat that extra strength surcharge that’s coming from those customers. We’re not going back trying to recover what we’ve lost in the current recycle. Again,

it's based solely on what it's going to cost to service those customers for the next four-year rate cycle." Id. at p. 101, ll. 11-16.

The Rate Commission acknowledges the concerns for a potential rate shock that could be caused by sharp increases to surcharges in FY 2021. These sharp increases can drive investment decisions caused by large industrial users subject to the surcharges, which may choose to modify their facilities or make location decisions to minimize their exposure to surcharges, thereby depriving the District of revenue. The Rate Commission determines that, for the Rate Change Proposal to be fair and reasonable to all classes of ratepayers, the proposed increases for extra strength surcharges should be phased in over at least a two-year period.

CIRP Projects

MIEC proposes to defer some projects in the CIRP to mitigate the impact on ratepayers. “[C]ertain major capital investments in FY 2023, and FY 2024 more specifically, have not been shown to be needed for the EPA Consent Decree or any other way that MSD does not have the discretion to levelize these over the entire forecast period.” See Ex. MIEC 73, p. 16, ll. 13-16. “[T]here are several very large capital programs that could be deferred for a few years, in an effort to produce an annual level of CIRP spending during the forecast period and several years immediately following it.” Id., ll. 20-22.

MIEC proposes adjusting the amount of CIRP spending in FY 2023 and FY 2024 by \$70 million for each year, and increase the proposed spending in FY 2025 and FY 2026 by the same amount. See Ex. MIEC 83, pgs. 4-5, ll. 11-14 & 1-2. “The actual selection of which projects could be deferred can be left up to MSD Staff, which can be managed in a way which meets its Consent Decree (‘CD’) obligations, other regulatory obligations, and manage impacts on wastewater rates.” Id. at p. 5, ll. 5-7. MIEC suggests that the District negotiate an amendment to

the Consent Decree to permit it to move projects out of the CIRP. “[I]t might be possible to negotiate an extension in the permitting with the EPA to allow them a little more flexibility to try to spread out this annual level of CIRP spending.” See Ex. MSD 91, p. 164, ll. 1-4.

It is the position of the Rate Consultant that there is little flexibility to move projects out of the CIRP, and the benefits of doing so would be limited. Regarding the small percentage of projects not required for the Consent Decree or other regulatory requirements, these projects are comprised of “the Floodwall ORS pump station system, which is the main system that protects the City of St. Louis from flooding. The Floodwall ORS system is over 50 years old, which is the end of its useful life. The risk of moving these asset management projects further into the schedule exceeds the cost-benefit of the 1% reduction in the CIRP.” See Ex. RC 82, p. 6, ll. 11-15. Nicole Young of Lion CSG testified that “there appear to be four projects [that are required by the Consent Decree] that could be moved from the FY 2021 through FY 2024 CIRP into a future budget cycle. These projects are 12088, 11833, 12334, and 12350 [listed in Appendix 7.2.2 of Ex. MSD 1, pgs. 7-18 – 7-90]. MSD may have reasons, beyond regulatory deadlines, for pulling these projects forward into this CIRP. Project 12350 appears to have a related pump station project in FY 2021 through FY 2024 CIRP, so it may be more cost-effective to build these at the same time. Project 12334 is a phased project, which may need to be adjusted for the schedule of the overall project. The four projects in question amount to less than 2% of the CIRP.” Id. at p. 7, ll. 4-11.

The District asserts that it lacks discretion to move projects out of the CIRP without jeopardizing compliance with the Consent Decree or other regulations. The Fluidized Bed Incinerator projects, which MIEC suggested that the District consider moving out of the CIRP, could not be removed from the CIRP without jeopardizing the District’s NPDES permits. See

Ex. MSD 80A, p. 1, ll. 9-24. “The Bissell and Lemay Fluidized Bed Incinerators project replaces incinerators originally constructed in the 1970s. The operation of these incinerators is regulated by USEPA and MDNR.” Id., ll. 26-28. “The District’s second material amendment to the Consent Decree was negotiated to financially accommodate the construction of new fluidized bed incinerators, by delaying a number of major Consent Decree tunnel projects. This Consent Decree amendment states ‘the Parties agree that this proposed Amendment is necessary because MSD currently incinerates 68,000 tons of sewage sludge annually, utilizing multiple hearth incinerators. The Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or before October 14, 2010 ... require MSD to replace its multiple hearth incinerators. The replacement of these incinerators will occur in fiscal years 2021-2026 timeframe and is estimated to cost approximately \$360 million in 2017 dollars.’ Construction funding for this project is budgeted in FY 2023, 2024, and 2025. The FY 2025 budget funds construction work that will extend into FY 2026. The District has no discretion to delay this project.” Id. at p. 2, ll. 33-45.

Since the District has limited flexibility to move projects without affecting its ability to comply with the Consent Decree and other regulatory requirements, and because moving projects out of the CIRP for this rate cycle would likely have modest, if any impact on ratepayers, the Rate Commission finds that the CIRP as proposed results in rates that are fair and reasonable to all classes of ratepayers. The Rate Commission acknowledges that those few projects not required for the Consent Decree or other regulatory requirements are still important. Based on the record before the Rate Commission, the Rate Commission does not find that any identified projects should be moved to a subsequent rate cycle. While the Rate Commission encourages the District to search for cost savings wherever possible, it does not conclude that

moving projects out to the CIRP would be an effective means of mitigating the impact of increased rates.

In fact, the Rate Commission believes that due to the current low interest rates and low cost of CIRP pricing, the District should consider doing more projects during the current rate cycle. The Rate Commission recommends that if additional funds are available the District should evaluate its capacity and move projects up when feasible.

To ensure that the Proposed Rate Change is fair and reasonable to all classes of ratepayers, the Rate Commission proposes that the District consider a minimum total Debt Service Coverage ratio of 1.6x, and that the increases proposed for extra strength surcharges be phased in over at least a two-year period.

The Rate Commission has included with its Report, as Exhibit A for informational purposes only, a memo and chart developed by its Consultant during its deliberations showing examples of the possible effect of these two issues on the rates themselves. These computations are to be considered an example only, and are simply for informational purposes, and not part of the record of these Proceedings.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL DOES NOT RESULT IN RATES THAT IMPOSE A FAIR AND REASONABLE BURDEN ON ALL CLASSES OF RATEPAYERS.

THE RATE COMMISSION, AFTER DISCUSSION AND CONSIDERATION OF ALL FACTS AND CIRCUMSTANCES DISCLOSED IN THESE PROCEEDINGS, FINDS AND DETERMINES THAT THE RATE CHANGE PROPOSAL MODIFIED WITH UTILIZING A MINIMUM TOTAL DEBT SERVICE COVERAGE RATIO OF 1.6x AND WITH THE PROPOSED INCREASES FOR EXTRA STRENGTH SURCHARGES PHASED IN OVER AT LEAST A TWO-YEAR PERIOD WILL RESULT IN RATES THAT IMPOSE A FAIR AND REASONABLE BURDEN ON ALL CLASSES OF RATEPAYERS.⁹

⁹ Please see page 122 of this Report for Minority Report of Commissioners Stein and Toenjes on the Appropriate Allocation of Infiltration/Inflow Costs.

Please see page 123 of this Report for Minority Report of Commissioner Stein on Deferring Some of the Capital Improvement and Replacement Projects (CIRP).

August 7, 2019

To: St. Louis Metropolitan Sewer District Rate Commission
From: Pam Lemoine, Black & Veatch Management Consulting, LLC
CC: Lisa Stump, Lashly & Baer, P. C.
Subject: Evaluation of the Impact of the Rate Commission's Recommended Modifications

This memorandum summarizes the evaluation of the impact of two changes to the Metropolitan St. Louis Sewer District's (MSD or District) Rate Proposal, as recommended by the Rate Commission during deliberations. This analysis has been completed at the Rate Commission's request for illustrative purposes only and is not part of the Record of the Rate Commission proceedings.

RECOMMENDED MODIFICATIONS TO THE DISTRICT'S RATE PROPOSAL

During deliberations, the Rate Commission recommended two changes to the District's Rate Proposal, as follows:

Minimum Total Debt Service Coverage of 1.6x

Phase-In Surcharge Rates to Cost of Service over at least a 2-year period

Minimum Total Debt Service Coverage (DSC) of 1.6x

The District's Rate Proposal includes minimum targets for debt service coverage, both for Senior Bond Debt Service Coverage and Total Debt Service Coverage. Senior Bond Debt Service coverage is the ratio of net revenue¹⁰ to total senior revenue bond debt service¹¹. The District's minimum target for Senior Bond Debt Service Coverage is 2.5x. Total Bond Debt Service Coverage is the ratio of net revenue to total debt service on all outstanding debt¹². The District's minimum target for Total Debt Service Coverage is 1.8x. This is a change from prior rate proposals, where the minimum target was 1.6x. In addition to DSC targets, the District also has a minimum operating reserve target of 60 days of annual operating expenses.

In developing the financial plan, all three targets must be met. Due to the nature of the CIRP and the capital financing plan, as well as outstanding debt, one or more of these three targets will drive the need for rate increases. In the District's Rate Proposal, the Operating Reserve Target and Total Bond DSC drove the District's proposal. Senior Bond DSC remains slightly above the minimum target of 2.5x. In evaluating the Rate Commission's recommendation to set the minimum Total DSC at 1.6x, by FY 24, Senior Bond DSC becomes the restricting factor in lowering rates.

Phase-In Surcharge Rates to Cost of Service Over at Least a 2-Year Period

The District's Rate Proposal indicates the need for significant increases in Surcharge Rates in order to recover the allocated cost of service for Surcharge customers. Due to the magnitude of

¹⁰ Net revenue equals total wastewater pledged revenue less operating expenses.

¹¹ Annual principal and interest due on all outstanding senior revenue bonds.

¹² Annual principal and interest due on all outstanding debt, including revenue bonds, state revolving fund loans, and any other long-term debt.

the increases, the Rate Commission's second recommendation is to phase-in to cost of service over at least a 2-year period.

IMPACT OF THE RATE COMMISSION'S RECOMMENDATIONS

To evaluate the potential impact on the District's financial plan and rates, the District's Rate Model (see Exhibit MSD 52) was used to develop an alternative financial plan and rate design that incorporates the Rate Commission's recommendations. Table 1 provides a comparison of the District's Rate Proposal and the Rate Commission Recommendation for FY 2021-FY 2024 (current Rate Cycle) for several key financial metrics. FY 2025-FY 2028 are presented as a high-level forecast for illustrative purposes but are not part of the current Rate Cycle.

Lines 1-4 present a comparison of the resulting projection of wastewater user charge revenue. Line 1 summarizes projected wastewater user charge revenue under the District's original Rate Proposal. As shown in Line 2, revenue increases between 2.8%-4.1% per year under the District's Rate Proposal. Line 3 presents the resulting user charge revenue with the two changes recommended by the Rate Commission. As shown in Line 4, projected revenue increases are slightly less than under the District's Rate Proposal, ranging from 2.4%-3.9% per year.

Lines 5 and 6 provide a comparison of Total Debt Service Coverage. As shown, Total DSC declines over the Rate Cycle, reaching 1.76x in FY 2024. In Lines 7-8, a comparison of Senior Revenue Bond DSC is presented. As shown, Senior Bond DSC reaches the minimum target of 2.5x in FY 2025. Therefore, Senior Bond DSC is the limiting factor in the Rate Commission's Recommendation.

Lines 9-10 present a summary of the percentage of the CIRP that is debt funded in each year. As shown, the Rate Commission's recommendation results in slightly higher debt financing over the four-year period.

Lines 11-12 present a summary of the Operating Reserve, presented in terms of "Days Cash." Days Cash is a representation of the ending Operating Reserve balance in terms of number of days of operating expenses. As previously discussed, the District's minimum target for the Operating Reserve is 60 days. As shown, during the four-year Rate Cycle, both the District's Rate Proposal and the Rate Commission's Recommendation achieve very similar year end balances.

Line 13 provides a summary of the District's annual CIRP, which is the same for both proposals.

Table 1 –Comparison of Rate Commission Recommendation and District Proposal – Key Metrics

Line No.	WASTEWATER USER CHARGE REVENUE (\$ MILLIONS)								
	PROJECTED				FORECAST				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
1	Original Rate Proposal	\$ 453.3	\$ 471.2	\$ 490.2	\$ 510.1	\$ 550.1	\$ 573.6	\$ 597.5	\$ 620.7
2	increase	2.8%	4.0%	4.0%	4.1%	7.8%	4.3%	4.2%	3.9%
3	Surcharge Phase In, 1.6x DSC	\$ 451.7	\$ 467.8	\$ 485.1	\$ 504.2	\$ 553.3	\$ 577.6	\$ 598.9	\$ 621.3
4	increase	2.4%	3.6%	3.7%	3.9%	9.7%	4.4%	3.7%	3.7%
TOTAL DEBT SERVICE COVERAGE									
	PROJECTED				FORECAST				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
	5	Original Rate Proposal	2.10	2.05	1.94	1.81	1.82	1.85	1.98
6	Surcharge Phase In, 1.6x DSC	2.08	2.03	1.90	1.76	1.82	1.86	1.97	2.09
REVENUE BOND DEBT SERVICE COVERAGE									
	PROJECTED				FORECAST				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
	7	Original Rate Proposal	3.19	3.09	2.86	2.57	2.50	2.50	2.58
8	Surcharge Phase In, 1.6x DSC	3.16	3.05	2.80	2.50	2.50	2.50	2.56	2.66
% OF CIRP NEEDS FUNDED BY DEBT									
	PROJECTED				FORECAST				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
	9	Original Rate Proposal	50.4%	51.6%	68.8%	68.9%	47.3%	0.0%	0.0%
10	Surcharge Phase In, 1.6x DSC	51.0%	52.4%	70.4%	70.3%	49.5%	0.0%	0.0%	0.0%
Operating Reserve (Days Cash)									
	PROJECTED				FORECAST				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
	11	Original Rate Proposal	113.6	76.3	88.4	86.8	73.3	170.5	185.2
12	Surcharge Phase In, 1.6x DSC	113.6	73.7	87.8	86.0	85.7	186.6	200.8	95.1
Total CIRP (\$ MILLIONS)									
	PROJECTED				FORECAST				
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
	13	Total CIRP Needs	\$ 351.6	\$ 342.3	\$ 438.3	\$ 450.2	\$ 313.2	\$ 109.0	\$ 178.3

Table 2 provides a comparison in typical monthly bills for each rate class. Lines 1-6 summarize the comparison between the District’s original Rate Proposal and the Rate Commission’s Recommendation for a typical single family residential monthly bill (6 Ccf/month). Line 1 presents the estimated monthly bill for the District’s original Rate Proposal. Line 2 provides the percentage change in the bill over the prior year. Line 3 presents the estimated monthly bill, reflecting the two changes recommended by the Rate Commission. Line 4 provides the percentage change in the bill over the prior year. Lines 5-6 provide a comparison between the two scenarios, indicating the increase/(decrease) in the monthly bill (Line 5) and the percentage change from the District’s original Rate Proposal. The remainder of the table provides the same information for typical bills for each customer class.

Table 2 – Comparison of Rate Commission Recommendation and District Proposal – Typical Bills

Line No.	TYPICAL BILLS (MONTHLY)								
	PROJECTED				FORECAST				
TYPICAL SINGLE FAMILY RESIDENTIAL MONTHLY BILL (METERED / 6 CCF)									
	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
1	Original Rate Proposal ¹	\$ 56.63	\$ 58.78	\$ 61.02	\$ 63.36	\$ 67.97	\$ 70.43	\$ 72.91	\$ 75.25
2	increase over prior year	1.9%	3.8%	3.8%	3.8%	7.3%	3.6%	3.5%	3.2%
3	Surcharge Phase In, 1.6x DSC ²	\$ 56.40	\$ 58.33	\$ 60.36	\$ 62.59	\$ 68.42	\$ 70.98	\$ 73.13	\$ 75.36
4	increase over prior year		3.4%	3.5%	3.7%	9.3%	3.7%	3.0%	3.0%
Change from Original Proposal									
5	Change (\$/month)	\$ (0.23)	\$ (0.45)	\$ (0.66)	\$ (0.77)	\$ 0.45	\$ 0.55	\$ 0.22	\$ 0.11
6	Change (%)	-0.4%	-0.8%	-1.1%	-1.2%	0.7%	0.8%	0.3%	0.1%
TYPICAL SINGLE FAMILY RESIDENTIAL MONTHLY BILL (UNMETERED /5 Rms, 1 WC, 1 Bth, 0 Shwr)									
	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
7	Original Rate Proposal ¹	\$ 61.66	\$ 64.04	\$ 66.48	\$ 69.04	\$ 74.09	\$ 76.76	\$ 79.52	\$ 82.08
8	increase over prior year	2.0%	3.9%	3.8%	3.9%	7.3%	3.6%	3.6%	3.2%
9	Surcharge Phase In, 1.6x DSC ²	\$ 61.36	\$ 63.52	\$ 65.75	\$ 68.17	\$ 74.50	\$ 77.28	\$ 79.66	\$ 82.08
10	increase over prior year		3.5%	3.5%	3.7%	9.3%	3.7%	3.1%	3.0%
Change from Original Proposal									
11	Change (\$/month)	\$ (0.30)	\$ (0.52)	\$ (0.73)	\$ (0.87)	\$ 0.41	\$ 0.52	\$ 0.14	\$ -
12	Change (%)	-0.5%	-0.8%	-1.1%	-1.3%	0.6%	0.7%	0.2%	0.0%
SAMPLE MULTI-FAMILY RESIDENTIAL MONTHLY BILL (60 CCF)									
	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
14	Original Rate Proposal ¹	\$ 327.71	\$ 340.12	\$ 353.16	\$ 366.84	\$ 393.59	\$ 407.93	\$ 422.29	\$ 435.97
15	increase over prior year	2.9%	3.8%	3.8%	3.9%	7.3%	3.6%	3.5%	3.2%
16	Surcharge Phase In, 1.6x DSC ²	\$ 326.40	\$ 337.51	\$ 349.26	\$ 362.29	\$ 396.20	\$ 411.18	\$ 423.59	\$ 436.62
17	increase over prior year		3.4%	3.5%	3.7%	9.4%	3.8%	3.0%	3.1%
Change from Original Proposal									
18	Change (\$/month)	\$ (1.31)	\$ (2.61)	\$ (3.90)	\$ (4.55)	\$ 2.61	\$ 3.25	\$ 1.30	\$ 0.65
19	Change (%)	-0.4%	-0.8%	-1.1%	-1.2%	0.7%	0.8%	0.3%	0.1%
SAMPLE NON-RESIDENTIAL / NORMAL STRENGTH MONTHLY BILL (100 CCF)									
	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
21	Original Rate Proposal ¹	\$ 532.95	\$ 553.07	\$ 574.27	\$ 596.49	\$ 639.80	\$ 663.11	\$ 686.44	\$ 708.70
22	increase over prior year	3.2%	3.8%	3.8%	3.9%	7.3%	3.6%	3.5%	3.2%
23	Surcharge Phase In, 1.6x DSC ²	\$ 530.84	\$ 548.86	\$ 567.97	\$ 589.14	\$ 644.01	\$ 668.36	\$ 688.54	\$ 709.75
24	increase over prior year		3.4%	3.5%	3.7%	9.3%	3.8%	3.0%	3.1%
Change from Original Proposal									
25	Change (\$/month)	\$ (2.11)	\$ (4.21)	\$ (6.30)	\$ (7.35)	\$ 4.21	\$ 5.25	\$ 2.10	\$ 1.05
26	Change (%)	-0.4%	-0.8%	-1.1%	-1.2%	0.7%	0.8%	0.3%	0.1%
SAMPLE NON-RESIDENTIAL / HIGH STRENGTH MONTHLY BILL (1,000 CCF)									
	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	
28	Original Rate Proposal ¹	\$5,422.11	\$5,622.06	\$5,836.11	\$6,058.44	\$6,483.59	\$6,718.26	\$6,953.54	\$7,179.24
29	increase over prior year	3.6%	3.7%	3.8%	3.8%	7.0%	3.6%	3.5%	3.2%
30	Surcharge Phase In, 1.6x DSC ²	\$5,401.60	\$5,581.44	\$5,775.39	\$5,987.66	\$6,523.35	\$6,768.05	\$6,973.16	\$7,188.80
31	increase over prior year		3.3%	3.5%	3.7%	8.9%	3.8%	3.0%	3.1%
Change from Original Proposal									
32	Change (\$/month)	\$ (20.51)	\$ (40.62)	\$ (60.72)	\$ (70.79)	\$ 39.76	\$ 49.79	\$ 19.62	\$ 9.55
33	Change (%)	-0.4%	-0.7%	-1.0%	-1.2%	0.6%	0.7%	0.3%	0.1%

¹ Exhibit MSD 52.

² Calculated utilizing the District's Rate Model.

The purpose of the Rate Commission's second recommendation, to phase-in Surcharge Rates to cost of service over at least two years, is to reduce the impact of the significant increases proposed in the District's Rate Proposal. In this analysis, Surcharge Rates are phased-in to cost of service over a two-year period. This means that Surcharge Rates are set mid-way between the current rates and cost of service rates in FY 2021. In FY 2022, Surcharge Rates are set to recover cost of service. In FY 2023 and FY 2024, Surcharge Rates are escalated the same as they are in the District's Rate Proposal, based on the calculated operation and maintenance expense increases utilized in the Rate Proposal.

Table 3 provides a comparison of projected Surcharge Rates for the District's Rate Proposal and the Rate Commission's Recommendation. Lines 1-8 provide a summary of the District's Rate Proposal, presenting the proposed Surcharge Rates (Lines 1-3), projected revenue from Surcharge Rates (Lines 4-6), and the calculated percent increase in Surcharge Rates over the prior year.

Lines 9-16 present the same information, reflecting only the change in the Rate Commission's recommended minimum Total DSC of 1.6x. As previously discussed, because Senior Bond DSC becomes the driving factor by FY 2024, there are only minor differences between this scenario and the District's Rate Proposal. This difference in revenue is presented in lines 17-20.

Lines 20-27 present the same information for the Rate Commission's Recommendation, including the phase-in of Surcharge Rates to cost of service over a two-year period. As shown in Lines 26-27, the indicated increase in Surcharge Rates in FY 2021 is significantly lower than under the District's Rate Proposal. In FY 2022, Surcharge rates are then increased at a higher rate than under the District's Rate Proposal, in order to bring Surcharge Rates to a cost of service level in FY 2022. In FY 2023 and FY 2024, Surcharge Rates then increase at the indicated annual escalation for operation and maintenance expenses and are the same percentage increase as under the District's Rate Proposal.

The difference in revenue generated by the phase-in of the Surcharge Rates, compared to the change in revenue due to the change in the minimum Total DSC, is shown in Lines 28-30. As expected, there is a loss of revenue from Surcharge Rates under the Rate Commission's Recommendation in FY 2021. This loss of revenue is recovered through slightly higher user charges in FY 2021. Finally, Lines 31-33 present the difference in revenue generated by Surcharge Rates in each year for the combined two changes recommended by the Rate Commission, compared to the revenue generated by Surcharge Rates under the District's Rate Proposal. As indicated, over the four-year period, Surcharge Rates would generate approximately \$609,000 less revenue than under the District's Rate Proposal.

Table 3 – Comparison of Rate Commission Recommendation and District Proposal – Surcharge Rates

Line No.	Fiscal Year					Total (FY21-24)
	2020	2021	2022	2023	2024	
MSD Rate Proposal ¹						
Surcharge Rates						
1	TSS	\$ 283.87	\$ 314.00	\$ 321.47	\$ 332.35	\$ 341.76
2	BOD	\$ 708.56	\$ 898.00	\$ 919.37	\$ 950.46	\$ 977.36
3	COD	\$ 354.30	\$ 449.00	\$ 459.69	\$ 475.24	488.69
Surcharge Revenue						
4	TSS	\$ 1,609,543	\$ 1,759,028	\$ 1,779,336	\$ 1,817,622	\$ 1,846,529
5	BOD	\$ 4,287,142	\$ 5,368,244	\$ 5,430,259	\$ 5,546,885	\$ 5,634,969
6	Total	\$ 5,896,685	\$ 7,127,272	\$ 7,209,595	\$ 7,364,507	\$ 7,481,498
Surcharge Rate Increase						
7	TSS		10.61%	2.38%	3.38%	2.83%
8	BOD		26.74%	2.38%	3.38%	2.83%
RC Scenario ²						
Surcharge Rates						
9	TSS	\$ 283.87	\$ 314.00	\$ 321.47	\$ 332.35	\$ 341.76
10	BOD	\$ 708.56	\$ 896.00	\$ 917.32	\$ 948.34	\$ 975.18
11	COD	\$ 354.30	\$ 448.00	\$ 458.66	\$ 474.17	487.59
Surcharge Revenue						
12	TSS	\$ 1,609,543	\$ 1,759,028	\$ 1,779,336	\$ 1,817,622	\$ 1,846,529
13	BOD	\$ 4,287,142	\$ 5,356,288	\$ 5,418,151	\$ 5,534,512	\$ 5,622,400
14	Total	\$ 5,896,685	\$ 7,115,316	\$ 7,197,487	\$ 7,352,134	\$ 7,468,930
Surcharge Rate Increase						
15	TSS		10.61%	2.38%	3.38%	2.83%
16	BOD		26.45%	2.38%	3.38%	2.83%
Comparison of RC Scenario with MSD Rate Proposal						
Revenue Difference						
17	TSS	\$ -	\$ -	\$ -	\$ -	\$ -
18	BOD	\$ -	\$ (11,956)	\$ (12,108)	\$ (12,372)	\$ (12,569)
19	Total	\$ -	\$ (11,956)	\$ (12,108)	\$ (12,372)	\$ (12,569)
RC Scenario - Phase In ³						
Surcharge Rates						
20	TSS	\$ 283.87	\$ 302.67	\$ 321.47	\$ 332.35	\$ 341.76
21	BOD	\$ 708.56	\$ 812.94	\$ 917.32	\$ 948.34	\$ 975.18
22	COD	\$ 354.28	\$ 406.47	\$ 458.66	\$ 474.17	\$ 487.59
Surcharge Revenue						
23	TSS	\$ 1,609,543	\$ 1,695,557	\$ 1,779,336	\$ 1,817,622	\$ 1,846,529
24	BOD	\$ 4,287,142	\$ 4,859,755	\$ 5,418,151	\$ 5,534,512	\$ 5,622,400
25	Total	\$ 5,896,685	\$ 6,555,313	\$ 7,197,487	\$ 7,352,134	\$ 7,468,930
Surcharge Rate Increase						
26	TSS		6.62%	6.21%	3.38%	2.83%
27	BOD		14.73%	12.84%	3.38%	2.83%
Comparison of RC Scenario Phase In with RC Scenario						
Revenue Difference						
28	TSS	\$ -	\$ (63,471)	\$ -	\$ -	\$ -
29	BOD	\$ -	\$ (496,533)	\$ -	\$ -	\$ -
30	Total	\$ -	\$ (560,003)	\$ -	\$ -	\$ -
Comparison of RC Scenario Phase In with MSD Rate Proposal						
Revenue Difference						
31	TSS	\$ -	\$ (63,471)	\$ -	\$ -	\$ -
32	BOD	\$ -	\$ (508,489)	\$ (12,108)	\$ (12,372)	\$ (12,569)
33	Total	\$ -	\$ (571,959)	\$ (12,108)	\$ (12,372)	\$ (12,569)

¹ Exhibit MSD 1, page 4-37, Table 4-18.

² COS Based Rates Using MSD Methodology, reflects RC Proposal for DSC (All) of 1.6x.

³ RC Proposal, with 2 year phase-in to COS for Surcharge Rates.

MINORITY REPORTS

COMMISSIONER PALANS SUBMITS THIS MINORITY REPORT REGARDING THE AMOUNT OF BONDING PROPOSED

I respectfully disagree that the Rate Change Proposal and all portions thereof (the “Proposal”) impose a “fair and reasonable burden on all classes of ratepayers” for the reasons that follow:

The District faces mandatory performance under a Consent Decree to comply with the Clean Water Act, the terms of which require the District to spend nearly \$6 billion through 2039 on capital improvement projects. The District is charged with maintaining an aging sewer system infrastructure (with some sewers over 150 years old), and faces other contingent exposure risks as well. Compliance with the Clean Water Act drives in excess of 90% of all scheduled CIRP remediation projects over the life of the Consent Decree. To borrow a phrase embedded in an old television jingle, “you can either pay me now, or pay me later.” Under any scenario, remediation is required. Compliance with the Clean Water Act is mandatory. The cost of compliance is \$6 billion. Public health and safety requires nothing less.

The evidentiary record before the Rate Commission clearly established that: (i) the District currently experiences favorable financial and liquidity positions, and enjoys a AA credit rating from rating agencies, (ii) historically favorable interest rates prevail during the current economic climate, (iii) the District has experienced historically competitive bid pricing on CIRP projects, (iv) the District projects a potential rate increase of 7.25% in FY 2025 to maintain its minimum policy levels, and (v) the type and magnitude of the rate “spike” in FY 2025 may result in “bill impact volatility” as identified by Black & Veatch, the Rate Commission’s consulting firm.

In order for a Proposal to be “fair and reasonable” on all classes of ratepayers, it must be “impartial,” “just,” and “proper” “under the circumstances.” (See Black’s Law Dictionary and Webster Dictionary definitions.) Against this background, under these circumstances, based upon the evidentiary record established and in the face of mandatory compliance with the Clean Water Act to protect public health and safety, the District has a unique opportunity to adopt a pragmatic approach, accomplish more during this rate cycle than currently scheduled, avoid potential “rate shock” and modify the Proposal as follows:

- increase the amount of proposed authorization of \$500 million in additional bonds by an amount of \$100 million to a total of \$600 million, with such additional \$100 million funding borrowed at the rate of \$25 million per year during the 4-year rate cycle;
- accelerate CIRP projects as and where possible and feasible by \$25 million each year during the 4-year rate cycle; and
- modify the Proposal to account for increased costs associated with such increased borrowing.

Borrowing an additional \$100 million will result in approximately \$6 million costs (when fully funded) offset by an immaterial rate impact upon customers, and will not materially nor

adversely impact the District's credit rating and/or the District's liquidity position. Such modification to the Proposal "locks in" favorable interest rates, accelerates CIRP projects mandated under the Consent Decree, and mitigates sudden "spikes" in revenue adjustments becoming necessary in FY 2025. The combination of increased debt financing, and minimally increased user rates (which are substantially less than those projected during the last wastewater rate cycle) fall within a range of reasonableness, maximize the District's ability to perform its obligations under the Consent Decree, and is fair and reasonable for all classes of ratepayers.

Public health and safety drive this result. When opportunity presents itself to do more the District must act in a thoughtful and responsible way. Prevailing circumstances present at this time create an opportunity for the District to accomplish more during this 4-year cycle while smoothing the risk of future bill volatility.

**COMMISSIONERS STEIN AND TOENJES SUBMIT THIS MINORITY REPORT
REGARDING THE APPROPRIATE ALLOCATION OF INFILTRATION/INFLOW
COSTS**

We respectfully dissent from the majority decision with respect to the appropriate allocation of Infiltration/Inflow (“I/I”) costs.

The District relies on a 2005 study to determine that the I/I costs should be allocated at 40% to individual customers and 60% to the District’s collection system infrastructure.

Intervenor MIEC proposes that a 50/50 allocation of I/I costs is more appropriate because there have been significant changes to the District’s system since the 2005 study. In particular, the District has made substantial improvements to its wastewater system in order to comply with the Consent Decree. Ex. MSD 80C, p. 1, ll. 6-21.

We believe that for the time being until a more definite study is completed that the appropriate allocation of I/I at 50/50 as proposed by MIEC is more appropriate than to continue to utilize an outdated I/I allocation that is more heavily weighted toward the number of customers. The system is not perfect; however, increasing industrial customers’ bills for services will be felt by the community at large in many ways including the potential for decreased economic development. We disagree with the majority’s decision that this change should not be made until a new study is complete.

**COMMISSIONER STEIN SUBMITS THIS MINORITY REPORT REGARDING
DEFERRING SOME OF THE CAPITAL IMPROVEMENT AND REPLACEMENT
PROJECTS (CIRP)**

I respectfully dissent from the majority decision to support the District's position regarding CIRP Projects, and not to defer certain of those projects into the next rate cycle.

The District has stated they lack the discretion to move projects in or out of the CIRP due to the Consent Decree and other regulatory requirements.

Intervenor MIEC has proposed to defer some projects in the CIRP to mitigate the impact on ratepayers. A number of capital investments in FY 2023 and FY 2024 are not required by the Consent Decree and could be deferred for a few years in an effort to produce an annual level of CIRP spending during the forecast period and several years following it. The Rate Commission's own consultant identified approximately \$30 million in projects that could be deferred, and District staff has refused to undertake any additional analysis to determine whether more projects could be deferred.

I believe projects should be moved out of this CIRP into the next rate cycle in order to be fair and reasonable to all classes of ratepayers as proposed by MIEC.

**RESPECTFULLY SUBMITTED THIS 16TH DAY OF AUGUST, 2019, BY THE RATE
COMMISSION OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT**

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**2019 Rate Change Proceeding
INDEX**

Exhibit MSD 1	Rate Change Proposal
Exhibit MSD 1A	Rate Change Notice Cover Memo to Rate Commission
Exhibit MSD 2	Rate Change Public Notice
Exhibit MSD 3	Cover Memo to Rate Commission Secretary – Direct Testimony Submission
Exhibit MSD 3A	Direct Testimony, Brian Hoelscher MSD
Exhibit MSD 3B	Direct Testimony, Susan Myers MSD
Exhibit MSD 3C	Direct Testimony, Richard Unverferth MSD
Exhibit MSD 3D	Direct Testimony, Bret Berthold MSD
Exhibit MSD 3E	Direct Testimony, Marion Gee MSD
Exhibit MSD 3F	Direct Testimony Tim Snoke MSD
Exhibit MSD 3G	Direct Testimony, Bethany Pugh PFM
Exhibit MSD 3H	Direct Testimony, Bill Stannard RFC
Exhibit MSD 3I	Direct Testimony, Tom Beckley RFC
Exhibit MSD 4	Civil Service Rules and Regulations June 2017
Exhibit MSD 5	2015 Rate Proposal
Exhibit MSD 6	2015 Rate Commission Recommendation Report
Exhibit MSD 7	FY 2019 Operating Budget Document
Exhibit MSD 8	FY 2019 CIRP Budget Document
Exhibit MSD 9	2015 Comprehensive Annual Financial Report (CAFR)
Exhibit MSD 10	2016 Comprehensive Annual Financial Report (CAFR)
Exhibit MSD 11	2017 Comprehensive Annual Financial Report (CAFR)
Exhibit MSD 12	2018 Comprehensive Annual Financial Report (CAFR)
Exhibit MSD 13	2018 Popular Annual Financial Report (PAFR)
Exhibit MSD 14	Bond Master Ordinance 11713
Exhibit MSD 15	Supplemental Bond Ordinance 11736
Exhibit MSD 16	Supplemental Bond Ordinance 11986
Exhibit MSD 17	Supplemental Bond Ordinance 12179
Exhibit MSD 18	Supplemental Bond Ordinance 12332
Exhibit MSD 19	Supplemental Bond Ordinance 12755
Exhibit MSD 20	Supplemental Bond Ordinance 12937

Exhibit MSD 21	Supplemental Bond Ordinance 13024
Exhibit MSD 22	Supplemental Bond Ordinance 13025
Exhibit MSD 23	Supplemental Bond Ordinance 13183
Exhibit MSD 24	Supplemental Bond Ordinance 13327
Exhibit MSD 25	Supplemental Bond Ordinance 13465
Exhibit MSD 26	Supplemental Bond Ordinance 13521
Exhibit MSD 27	Supplemental Bond Ordinance 13731
Exhibit MSD 28	Supplemental Bond Ordinance 13763
Exhibit MSD 29	Supplemental Bond Ordinance 14225
Exhibit MSD 30	Supplemental Bond Ordinance 14312
Exhibit MSD 31	Supplemental Bond Ordinance 14567
Exhibit MSD 32	Supplemental Bond Ordinance 14571
Exhibit MSD 33	Supplemental Bond Ordinance 14572
Exhibit MSD 34	Supplemental Bond Ordinance 14835
Exhibit MSD 35	Supplemental Bond Ordinance 15077
Exhibit MSD 36	Supplemental Bond Ordinance 15098
Exhibit MSD 37	MSD Consent Decree
Exhibit MSD 37A	Second Material Amendment to Consent Decree (June 22, 2018)
Exhibit MSD 37B	MSD Combined Sewer Overflow Long-Term Control Plan (LTCP)
Exhibit MSD 37B1	2013 Update (LTCP) - Supplement 1
Exhibit MSD 37B2	2013 Update (LTCP) - Supplement 2
Exhibit MSD 37B3	2015 Update (LTCP) - Modifications A & B
Exhibit MSD 37B4	2015 Update (LTCP) - DNR Approval Letter
Exhibit MSD 37B5	2018 Update (LTCP) - Supplement 3
Exhibit MSD 37C	MSD Sanitary Sewer Overflow Control Master Plan Executive Summary
Exhibit MSD 38	Standard and Poor's Rating Report 2017
Exhibit MSD 39	Moody's Rating Report 2017
Exhibit MSD 40	Fitch Rating Report 2017
Exhibit MSD 41	Ordinance 14395 - Wastewater User Charge
Exhibit MSD 42	Ordinance 15048 - Sewer Use Ordinance
Exhibit MSD 43	CIRP Project Listing FY 2017-FY 2020
Exhibit MSD 44	Map of Constructed SSO and CSO

Exhibit MSD 45	FY 2018 MSD Annual Diversity Report
Exhibit MSD 45A	FY 2018 MSD Annual Diversity Report Presentation September 13, 2018
Exhibit MSD 46	Ordinance 13796 & 14776 - Pension Plan
Exhibit MSD 47	Cigna - Medical & Dental
Exhibit MSD 48	Cigna - Life
Exhibit MSD 49	Liberty Mutual - Long-Term Disability
Exhibit MSD 50	Ordinance 13795 - Defined Contribution Plan
Exhibit MSD 51	NACWA 2017 Survey
Exhibit MSD 52	Rate Model
Exhibit MSD 53	Rate Model Guide
Exhibit RC 54	Resolution to Request 45-Day Extension from the District Board of Trustees
Exhibit RC 55	Restated Rate Commission Operational Rules-2019 (As Adopted March 4, 2019)
Exhibit RC 56	Rate Commission's First Discovery Request to MSD - March 8, 2019
Exhibit MSD 56A	MSD's Response to First Discovery Request of the Rate Commission
Exhibit MSD 56B	Appendix 7.2.2 Detailed WW CIRP Project List
Exhibit MSD 56C	Appendix 7.2.3 Detailed WW CIRP Project List – Not Regulatory or CD
Exhibit MSD 56D	Appendix 7.2.4 Detailed WW CIRP Project List –Regulatory but not CD
Exhibit MSD 56E	4-CIRP Adjustments November 5, 2018
Exhibit MSD 56F	4a-WW CIRP3 FY17 October 23, 2017
Exhibit MSD 56G	4b-WW CIRP RC FY16 to FY18 Report Construction Engineering August 21, 2018
Exhibit MSD 56H	4c-WW CIRP RC Report Construction Engineering November 2, 2018
Exhibit MSD 57	Rate Commission Orientation and Summary
Exhibit MSD 58	Intergovernmental Cooperation Agreement between MSD & City of Arnold
Exhibit MSD 59	MSD Energy Saving Projects
Exhibit RC 60	Resolution Adopting Procedural Schedule and Public Notice

Exhibit RC 61	Rate Commission's Second Discovery Request to MSD - March 11, 2019
Exhibit MSD 61A	MSD's Response to Second Discovery Request of the Rate Commission
Exhibit MSD 61B	MSD Combined Sewer Projects Prioritization System Worksheet
Exhibit MSD 61C	Sample Green Infrastructure (GI) Grant Worksheet
Exhibit MSD 61D	Review of Construction Projects in Progress, December 2018
Exhibit MSD 61E	Process Review - Construction Change Orders, February 2016
Exhibit MSD 61F	Review of the Capacity, Management, Operations, and Maintenance (CMOM) Program, July 2015
Exhibit MSD 61G	Emergency Contracts, February 2018
Exhibit MSD 61H	Review of Engineering Design and Construction Management Contracts and Invoices, May 2015
Exhibit MSD 61I	Review of the Fleet Management Process, August 2016
Exhibit MSD 61J	Review of the Inventory Management Process-Maintenance Repairs Operations (MRO), April 2017
Exhibit MSD 61K	Overhead Rate Review, October 2014
Exhibit MSD 61L	Review of Project Accounting, August 2014
Exhibit MSD 61M	Review of Electric Utilities, February 2015
Exhibit MSD 61N	Summary of Overhead Procedures, January 2019
Exhibit MIEC 62	Application to Intervene, Missouri Industrial Energy Consumers (MIEC)
Exhibit RC 63	Rate Commission's Third Discovery Request to MSD - March 25, 2019
Exhibit MSD 63A	MSD's Response to Third Discovery Request of the Rate Commission
Exhibit MSD 63B	Project Justification and ID Form
Exhibit MSD 63C	Project Risk Quantification Monetization Tool
Exhibit MSD 63D	Project Monetized Prioritization Rulebook
Exhibit MSD 63E	Large Wastewater Revenue Bond Issuer Statistics
Exhibit MSD 63F	MSD 2018 Rating Agency Presentation
Exhibit MSD 63G	MSD Preliminary FY 2020 Operating Budget
Exhibit MSD 63H	Ordinance 14854 - Connection Fees
Exhibit MSD 64	MSD Opening Statement.pdf
Exhibit MIEC 65	MIEC'S First Discovery Request to MSD - April 8, 2019

Exhibit MSD 65A	MSD's Response to First Discovery Request of Interveners MIEC
Exhibit MSD 65B	2005 CDM Wet Weather Flow Cost Allocation Study
Exhibit MSD 65C	Page 3-32 of 2007 Rate Proposal
Exhibit RC 66	Rate Commission's Fourth Discovery Request to MSD - April 11, 2019
Exhibit MSD 66A	MSD's Response to Fourth Discovery Request of the Rate Commission.pdf
Exhibit MSD 66B	Wastewater System Improvement and Refunding Revenue Bonds.pdf
Exhibit MSD 66C	Rate Model (Exhibit MSD 52) Unlocked.pdf
Exhibit MSD 66D	MSD Tunnel Projects.pdf
Exhibit MSD 66E	25 Year History of 20 Year MMD.pdf
Exhibit MSD 66F	MSD Insurance Summary 2017.pdf
Exhibit MSD 66G	Current Projections Compared to 2015 Rate Model.pdf
Exhibit MIEC 67	MIEC'S Second Discovery Request to MSD - April 11, 2019
Exhibit MSD 67A	MSD's Response to Second Discovery Request of Interveners MIEC.pdf
Exhibit MSD 67B	Moody's Water and Sewer Utilities 2019 Outlook Report.pdf
Exhibit MSD 67C	Comparison of FY19 Base Budget to FY18 Actual Expenses.pdf
Exhibit MSD 67D	Cost of Service and Financial Planning Model.pdf
Exhibit MSD 67E	Employment Cost Index FY21-FY24.pdf
Exhibit MSD 68	Transcript of Technical Conference for District Testimony - April 8, 2019
Exhibit MSD 69	Transcript of Technical Conference for District Testimony - April 9, 2019.pdf
Exhibit RC 70	Rebuttal Testimony, Pamela Lemoine.pdf
Exhibit RC 70A	Summary of Wastewater Utility Bills.pdf
Exhibit RC 70B	Memo Summary of CIRP Development.pdf
Exhibit RC 71	Rebuttal Testimony, Prabha Kumar.pdf
Exhibit RC 72	Rebuttal Testimony, Nicole Young.pdf
Exhibit MIEC 73	Rebuttal Testimony, Michael P. Gorman.pdf
Exhibit MSD 74	MSD's First Discovery Request to Intervener MIEC April 26, 2019.pdf
Exhibit MIEC 75	MIEC's Response to MSD's First Discovery Request.pdf
Exhibit MIEC 75A	Treasury and Water Sewer Bond Yields.pdf

Exhibit MIEC 75B	Accuracy of Interest Rate Forecasts.pdf
Exhibit MIEC 75C	Rate Model to Support Mr. Gorman's Rebuttal Testimony.pdf
Exhibit MIEC 75D	Rate Model Using 3.5 Percent Rate and Supporting Table 1 of Discovery Response Number 1.pdf
Exhibit MIEC 75E	Schedule MPG-3.pdf
Exhibit MIEC 75F	Schedules MPG-5 and MPG-6.pdf
Exhibit MSD 76	MSD's Second Discovery Request to Intervener MIEC May 14, 2019.pdf
Exhibit MIEC 76A	MIEC's Response to MSD's Second Discovery Request.pdf
Exhibit RC 77	Rate Commission's Fifth Discovery Request to MSD May 14, 2019.pdf
Exhibit MSD 77A	MSD's Response to Fifth Discovery Request of The Rate Commission.pdf
Exhibit MSD 77B BMP4	Cost Estimating.pdf
Exhibit MSD 77C BMP12	Preliminary Studies.pdf
Exhibit MSD 77D	MSD Unit Costs Summary Item Listing.pdf
Exhibit MSD 77E	12106 Cost Estimate.pdf
Exhibit MSD 77F	12472 Cost Estimate.pdf
Exhibit MSD 77G	13033 Cost Estimate.pdf
Exhibit MSD 77H	12248 Cost Estimate.pdf
Exhibit MSD 77I	12255 Cost Estimate.pdf
Exhibit MIEC 78	MIEC's Third Discovery Request to MSD - May 16, 2019.pdf
Exhibit MSD 78A	MSD's Response to the Third Discovery Request of Interveners MIEC.pdf
Exhibit MSD 78B	Wastewater CIRP Project List FY21-24 Amended May 21, 2019.pdf
Exhibit MSD 78C	Wastewater CIRP Project List FY21-24 Amended May 21, 2019 Projects Not Regulatory or CD related.pdf
Exhibit MSD 78D	Wastewater CIRP Project List FY21-24 Amended May 21, 2019 Regulatory related projects that are not CD related.pdf
Exhibit MSD 78E	MSD Coupon and Yield Debt Assumptions.pdf
Exhibit MSD 78F	Bond Calculation Model.pdf
Exhibit MSD 78G	Debt Scenario Results.pdf
EXHIBIT MSD 79	Transcript of Technical Conference for Rebuttal Testimony - May 9, 2019_0.pdf

Exhibit MSD 80	Formal Submission of Surrebuttal Testimony Memorandum.pdf
Exhibit MSD 80A	Surrebuttal Testimony Richard Unverferth, MSD.pdf
Exhibit MSD 80B	Surrebuttal Testimony Tom Beckley, RFC.pdf
Exhibit MSD 80C	Surrebuttal Testimony William Stannard, RFC.pdf
Exhibit MSD 80D	Surrebuttal Testimony Marion Gee, MSD.pdf
Exhibit MSD 80E	Surrebuttal Testimony Bethany Pugh, PFM.pdf
Exhibit MSD 80F	Surrebuttal Testimony Tim Snoke, MSD.pdf
Exhibit MSD 80F1	Range of MMD over last 15 Years with Current Yield Percentile.pdf
Exhibit MSD 80F2	Historical Rate Volatility by Fiscal Year.pdf
Exhibit RC 81	Surrebuttal Testimony Pamela Lemoine.pdf
Exhibit RC 82	Surrebuttal Testimony Nicole Young.pdf
Exhibit MIEC 83	Surrebuttal Testimony Michael Gorman.pdf
Exhibit MIEC 83A	MIEC Surrebuttal Testimony Rate Model.pdf
Exhibit MSD 84	Transcript of Public Hearing - May 14, 2019.pdf
Exhibit MSD 85	Rate Impact - 50 Percent-50 Percent Infiltration and Inflow Allocation.pdf
Exhibit MSD 86	Transcript of Public Hearing - June 4, 2019.pdf
Exhibit MIEC 87	MIEC'S First Discovery Request to the Rate Commission June 24, 2019.pdf
Exhibit RC 87A	Rate Commission's Response to First Discovery Request of MIEC.pdf
Exhibit RC 87B	Analysis based on 4.5 Percent Premium.pdf
Exhibit MIEC 88	MIEC's Fourth Discovery Request to MSD June 24, 2019.pdf
Exhibit MSD 88A	MSD's Response to MIEC's Fourth Discovery Request.pdf
Exhibit MSD 88B	70-30 CIRP Funding St. Louis MSD Rate Financial Plan Model FY21-24.pdf
Exhibit MSD 88C	CIRP Delay St. Louis MSD Rate Financial Plan Model FY21-24.pdf
Exhibit MSD 88D	Requested Model Changes.pdf
Exhibit MSD 88E	70-30 CIRP Funding and CIRP Delay.pdf
Exhibit RC 89	Rate Commission's Sixth Discovery Request to MSD June 25, 2019.pdf
Exhibit MSD 89A	MSD's Response to the Rate Commission's Sixth Discovery Request.pdf

Exhibit MSD 89B	Bissell Air Permit.pdf
Exhibit MSD 89C	Lemay Air Permit.pdf
Exhibit MSD 89D	Declaration of Jodi M. Bruno, EPA.pdf
Exhibit MSD 89E	Unopposed Motion to Enter Proposed Second Material Amendment to Consent Decree.pdf
Exhibit MSD 89F	Solids Handling Master Plan Executive Summary.pdf
Exhibit MSD 89G	Solids Handling Master Plan Phase 1 Technical Memorandum.pdf
Exhibit MSD 89H	Solids Handling Master Plan Phase 2 Technical Memorandum.pdf
Exhibit MSD 89I	Solids Handling Master Plan Phase Technical Memorandum Update.pdf
Exhibit MSD 89J	Rate Impact at Various Usage Levels for 50 Percent Customer 50 Percent Volume II.pdf
Exhibit MSD 89K	Rating Change History.pdf
Exhibit MSD 89L	St Louis MSD Rate Financial Plan Model FY21-24 Extra 25 Per Year.pdf
Exhibit MSD 89M	Plant Asset Comparison 2019 2015.pdf
Exhibit MSD 89N	CIRP Discretionary Spending FY16 - FY19.pdf
Exhibit RC 90	Rate Commission's First Discovery Request to MIEC June 25, 2019.pdf
Exhibit MIEC 90A	MIEC's Response to the Rate Commission's First Discovery Request.pdf
Exhibit MIEC 90B	Citizens-Indianapolis Infiltration-Inflow Analysis-v1.pdf
Exhibit MIEC 90C	Comparison of Typical Wastewater Bills-v1.pdf
Exhibit MSD 91	Transcript of Surrebuttal Testimony June 20, 2019.pdf
Exhibit MSD 92	Pre-Hearing Conference Summary of MSD.pdf
Exhibit MSD 93	Transcript of Public Hearing June 27, 2019.pdf
Exhibit MSD 94	Transcript of Public Hearing May 22, 2019.pdf
Exhibit MSD 95	MSD Prehearing Conference Report.pdf
Exhibit MSD 96	Transcript of Prehearing Conference July 12, 2019.pdf
Exhibit RC 97	Rate Commission Prehearing Conference Report.pdf
Exhibit MIEC 98	Prehearing Conference Report of Intervenor Missouri Industrial Energy Co.pdf
Exhibit MIEC 98A	MIEC Submittal of Revised Appendix B to Prehearing Conference Report.pdf

Exhibit RC 99	Customer Comments submitted to Consumers Council of Missouri.pdf
Exhibit RC 100	District Response to Inquiry From Robert Schuetz.pdf
Exhibit RC 101	Letter from Kevin Morris regarding Non-metered Charges.pdf
Exhibit MSD 102	Exhibit Index 2019 as of July 24, 2019.pdf
Exhibit MSD 103	District Response to Letter from Kevin Morris.pdf
Exhibit MSD 104	Transcript of Public Hearing July 10, 2019.pdf
Exhibit MSD 105	Transcript of Public Hearing July 24, 2019.pdf
Exhibit MSD 106	Submittal of Final Exhibit Index.pdf

**2019 Rate Change Proceeding
ABBREVIATIONS & ACRONYMS**

AWWA	American Water Works Association
AWWARF	American Water Works Association Research Foundation
Board	Metropolitan St. Louis Sewer District Board of Trustees
BOD	Biochemical Oxygen Demand
Ccf	Hundred (100) cubic feet (about 748 gallons)
CD	Consent Decree
CIRP	Capital Improvement and Replacement Program
City	City of St. Louis
CMOM	Capacity, Management, Operation and Maintenance
COD	Chemical Oxygen Demand
County	St. Louis County
CSO	Combined Sewer Overflow
CIP	Capital Work In Progress
District	Metropolitan St. Louis Sewer District (MSD)
EPA	The United States Environmental Protection Agency
FY	Fiscal Year (July 1 – June 30)
HHS	Health and Human Services
I/I	Infiltration/Inflow
mg/l	milligrams per liter
mgd	million gallons per day
MIEC	Missouri Industrial Energy Consumers
MDNR	Missouri Department of Natural Resources
MSD	Metropolitan St. Louis Sewer District (District)
MWWC	Missouri Wastewater Coalition
NACWA	National Association of Clean Water Agencies
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OM&R	Operation, Maintenance and Replacement
OMCI	Operation, Maintenance and Construction Improvement
PAYGO	Pay-As-You-Go

PFM	PFM Financial Advisors LLC
Raftelis	Raftelis Financial Consultants Inc.
SRF	State Revolving Loan Fund
SSO	Sanitary Sewer Overflow
SS	Suspended Solids
TSS	Total Suspended Solids
WEF	Water Environment Federation
WIFIA	Water Infrastructure Finance and Innovation Act
WWLF	Water and Wastewater Loan Fund
WWRLF	Water and Wastewater Revolving Loan Fund