

# Exhibit MSD 61A

## BEFORE THE RATE COMMISSION OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT

### MSD'S RESPONSE TO SECOND DISCOVERY REQUEST OF THE RATE COMMISSION

#### The Metropolitan St. Louis Sewer District Response

**ISSUE:** WASTEWATER RATE CHANGE PROCEEDING

**WITNESS:** METROPOLITAN ST. LOUIS SEWER DISTRICT

**SPONSORING PARTY:** RATE COMMISSION

**DATE PREPARED:** MARCH 20, 2019

**Lashly & Baer, P.C.**  
**714 Locust Street**  
**St. Louis, Missouri 63101**

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

For Consideration of a )  
Wastewater Rate Change Proposal by )  
The Rate Commission of The Metropolitan )  
St. Louis Sewer District )

**MARCH 11, 2019 SECOND DISCOVERY REQUEST  
OF THE RATE COMMISSION**

**The Metropolitan St. Louis Sewer District**

Pursuant to § 7.280 and § 7.290 of the Charter Plan of The Metropolitan St. Louis Sewer District (the "Charter Plan"), Restated Operational Rule 3(7) and Procedural Schedule § 16 and § 17 of the Rate Commission of The Metropolitan St. Louis Sewer District ("Rate Commission"), The Metropolitan St. Louis Sewer District ("District") hereby responds to the March 11, 2019 Second Discovery Request of The Rate Commission for additional information and answers regarding the Rate Change Notice dated March 4, 2019 (the "Rate Change Notice").

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

For Consideration of a Wastewater )  
Rate Change Proposal by the Rate Commission )  
of the Metropolitan St. Louis Sewer District )

**SECOND DISCOVERY REQUEST  
OF THE RATE COMMISSION**

Pursuant to §§ 7.280 and 7.290 of the Charter Plan of the Metropolitan St. Louis Sewer District (the “Charter Plan”), Restated Operational Rule § 3(7) and Procedural Schedule §§ 16 and 17 of the Rate Commission of the Metropolitan St. Louis Sewer District (the “Rate Commission”), the Rate Commission requests additional information and answers from the Metropolitan St. Louis Sewer District (the “District”) regarding the Rate Change Proposal dated March 4, 2019 (the “Rate Change Proposal”).

The District is requested to amend or supplement the responses to this Discovery Request, if the District obtains information upon the basis of which (a) the District knows that a response was incorrect when made, or (b) the District knows that the response, though correct when made, is no longer correct.

The following Discovery Requests are deemed continuing so as to require the District to serve timely supplemental answers if the District obtains further information pertinent thereto between the time the answers are served and the time of the Prehearing Conference.

## SECOND DISCOVERY REQUEST

1. Appendix 7.1.2 of Ex. MSD 1 lists several categories of projects included within the Capital Improvement and Replacement Program (the “CIRP”) budget needed to meet the region’s obligations under the Consent Decree. With regard to each of the following categories, please answer the following questions:

a. “Projects identified in the SSO Master Plan to ensure system capacity and enable the removal of sanitary sewer overflows” – Are these specific projects which must be completed? If so, please state the specific dates by which the projects must be completed.

b. “Projects to meet compliance with the CSO Long Term Control Plan” – Please describe how projects are selected and prioritized.

c. “Projects to renew the wastewater system to meet Consent Decree goals” – Please describe how projects are selected and prioritized. Is the District required to spend a certain amount on renewal projects annually? Or are projects selected to achieve performance metrics?

d. “Projects to meet Consent Decree targets for Cityshed and Green Infrastructure investment” – Please describe how projects are selected and prioritized.

**RESPONSE:** *The categories of projects included within the CIRP and identified in (a) through (d) above are requirements of the District’s Consent Decree (CD) that have been approved for scope and schedule by the US Justice Department, USEPA, Missouri Coalition for the Environment and must be completed to ensure compliance with the CD.*

a. *SSO Master Plan Projects must be completed, and have been identified by MSD and approved by EPA as a condition of their approval of the Master Plan, along with four target dates related to each project. The SSO Master Plan has been included as MSD Exhibit 37C.*

b. *The CSO Long Term Control Plan development was performed according to the nine elements defined in EPA’s CSO Control Policy to obtain regulatory approval. Part of that process involved developing and evaluating numerous alternatives to control CSOs. MSD evaluated over 70 CSO control technologies that were screened at 3 levels for feasibility, applicability and cost-effectiveness. During the 3<sup>rd</sup> level of screening, 12 control alternatives were evaluated in five CSO control scenarios that were evaluated for numerous criteria and presented for public input, before a control scenario was selected, submitted and approved by the Missouri Department of Natural Resources. More information can be found in the MSD Combined Sewer Overflow Long-Term Control Plan and Updates (Exhibits MSD 37B-37B5).*

c. *Projects that renew the wastewater system are selected and prioritized to ensure the wastewater system continues to function properly, and to meet specific performance metrics in the Consent Decree. Much of this work is managed under Infrastructure Repair projects, or in a similar manner. When assets are found to be at the end of their useful life and the condition rating is poor, MSD schedules a project to replace, repair or rehabilitate the asset. MSD does have a Consent Decree requirement to Repair, Rehabilitate or Replace 90 miles of its wastewater collections system per year.*

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*For other assets, MSD targets annual expenditures to a target funding level of approximately 10% of the CIRP.*

*d. Projects planned under the Cityshed program are selected and identified through historical records, combined system investigations and Cityshed planning studies. The projects are then prioritized by benefit/cost ratio using the MSD Combined Sewer Projects Prioritization System. The worksheet utilized for this prioritization system has been provided as Exhibit MSD 61B.*

*Under the Green Infrastructure (GI) program, project selection is largely based upon the submittal of applications from the community under the Rainscaping Large Grants program. To select and prioritize projects under the Annual Call, MSD uses an Annual Call Prioritization worksheet to score benefit/cost ratios to compare applications and select GI projects. A sample worksheet utilized for this prioritization has been provided as Exhibit MSD 61C. Further information regarding the District's Rainscaping Large Scale Grants program can be found on the MSD website at: <https://www.stlmsd.com/what-we-do/stormwater-management/rainscaping-large-scale-grants-program>.*

2. Is the District aware of future regulatory requirements which may impact the CIRP and the District's financial plan in the future? If so, please describe the regulatory requirements, their estimated costs, and timeframes which the District would be required to comply with such requirements.

**RESPONSE:** *Although not anticipated within this upcoming Rate Cycle, future regulatory requirements that could significantly impact MSD's wastewater operations include the following:*

*a. New national recommended water quality criteria for ammonia will result in lower ammonia effluent limits at MSD's wastewater treatment plants. However, at this time, MSD believes these lower limits will have a negligible impact to the CIRP and the District's financial plan.*

*b. Missouri Department of Natural Resources (MDNR) is looking at implementing new effluent limits for nutrients (total nitrogen and total phosphorous) on Missouri rivers and streams. Meeting these new limits will require improvements at MSD's wastewater treatment plants, operational changes to existing plant processes, and/or revisions to inspections and permits MSD issues to industrial users that discharge into MSD's sewer systems. The cost of potential upgrades is estimated at over \$400 million and is currently included in our long-term financial plan.*

*c. USEPA is continuously developing new water quality criteria for emerging contaminants which will likely require changes in capital and operations at MSD's wastewater treatment plants. The cost and timeframe of complying with these future criteria is uncertain at this time.*

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3. Table 4-18 of Exhibit MSD 1 shows the proposed wastewater user charges for FY21 – FY24. While most proposed changes are in the 2-4% range, the extra strength surcharge for suspended solids would increase by 11% in FY21, the biochemical oxygen demand would increase by 27%, and the chemical oxygen demand will substantially increase. Please expand on the explanation provided in Section 4.10.4 on page 4-39 as to why these significant increases are proposed. Furthermore, please explain why the capital cost allocated to these factors increased by 70% from FY17 to FY21. Please explain these capital costs and why they did not impact the base and volume charges.

**RESPONSE:** *A more detailed explanation of this is provided in Exhibit MSD 3I, question 27 starting on page 10.*

*A summary of a comparison of total wastewater capital costs from Test Year 2017 to Test Year 2021 is shown in the following table. Total wastewater capital costs increase by 61% over the period of 2017 to 2021, which is consistent with the 70% allocated to TSS and BOD. This increase has been reflected in the base and volume charges as the proposed cost for a typical single-family residential customer using 6 ccf increased by 38% over this period while TSS is projected to increase by 20% and BOD by 36%.*

	Test Year 2017			Test Year 2021	% Increase
	Total <sup>1</sup>	Less: Stormwater <sup>2</sup>	Wastewater	Wastewater <sup>3</sup>	
Operating	\$194,230,070	\$19,829,263	\$174,400,807	\$182,598,820	4.7%
Capital	175,151,208	8,405,411	166,745,797	268,241,735	60.9%
Total	\$369,381,277	\$28,234,674	\$341,146,603	\$450,840,555	32.2%

4. Figure 4-8 in Section 4.10.3 of Exhibit MSD 1 illustrates the growth of the Customer Assistance Program (“CAP”) from 2014 to 2018. Has the District projected the anticipated growth in the number of CAP accounts for the years at issue in the Rate Change Proposal, FY21 – FY24? If so, please state the projected growth for each fiscal year through FY24. Please provide detail on how the foregone revenue from CAP accounts is recouped from the various user classes.

**RESPONSE:** *The District has projected the anticipated growth in the number of CAP accounts for the years at issue in the Rate Change Proposal, FY21 – FY24. Please refer to Exhibit MSD 52 (tab Inputs, cells X349:AA350) for these growth rates. The CAP is modeled in the cost of service analysis through a reduction in the units of service for these customers and this analysis results in all other customers of the utility sharing in these costs proportionate to their cost of service.*

<sup>1</sup> From Table 4-13 of Exhibit MSD 5

<sup>2</sup> From Table 4-14 of Exhibit MSD 5

<sup>3</sup> From Table 4-13 of Exhibit MSD 1

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5. Please explain the trend regarding delinquent charges from FY17 through FY21. Please state the projection for these charges for each fiscal year through FY24.

**RESPONSE:** *The District has not prepared a trend of delinquent charges from FY17 through FY21. Pages 7-107 thru 7-108 of the Rate Change Proposal (Exhibit MSD 1) provide the delinquent account balance from FY 14 thru FY 18. In addition, the chart on page 7-109 provides information regarding the delinquent account balance from FY 14 thru the second quarter of FY 19. Delinquent charges represent the balance due on customer accounts for wastewater charges, stormwater charges, late fees and other charges such as lien fees and other court awarded fees since MSD began billing for the services that it provides. The District expects that the delinquent charge balance will continue to grow unless collections of delinquent accounts exceed the bad debt expense recorded by the District in upcoming fiscal years. Information regarding the District's bad debt expenses and projected future expenses can be found on pages 4-8, 4-12, and 7-114 of the Rate Change Proposal.*

6. Susan M. Myers states in Direct Testimony that the Wastewater Rate Change Proposal is consistent with constitutional, statutory or common law as amended from time to time. See MSD Ex. 3B, p. 1, ll. 22-24. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.

**RESPONSE:**

a. *The precedent was set by Missouri Growth Association v. Metropolitan St. Louis Sewer, 941 S.W.2d 615 (Mo. Ct. App. 1997) and the methodology of measuring and billing MSD's wastewater rate has not changed since this ruling.*

b. *none*

c. *Same as a.*

7. Susan M. Myers states in Direct Testimony that the Rate Change Proposal will not impair the ability of the District to comply with applicable federal or state laws or regulations as amended from time to time. See MSD Ex. 3B, p. 2, ll. 22-24. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.

**RESPONSE:** *The core of MSD's business is regulated by the Clean Water Act (CWA). The Rate Change Proposal was developed by reviewing all of the known regulatory needs that will have to be met over the next four years. That includes compliance with existing regulations and the consent decree. See Exhibit MSD 3C and MSD 3D which outline the regulatory and consent decree needs for wastewater.*

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8. Susan M. Myers states in Direct Testimony that the Rate Change Proposal imposes a fair and reasonable burden on all classes of ratepayers. See MSD Ex. 3B, p. 3, ll. 18-19. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.

**RESPONSE:** *The precedent was set by Missouri Growth Association v. Metropolitan St. Louis Sewer, 941 S.W.2d 615 (Mo. Ct. App. 1997) and the methodology of measuring and billing MSD's wastewater rate has not changed since this ruling. Regarding the methodology, see Exhibit MSD 3I and Section 4 of the MSD Rate Change Proposal, March 4, 2019.*

9. Susan M. Myers states in Direct Testimony that “[r]ecent regulatory changes have compelled MSD to accelerate certain non-[Consent Decree] work.” See MSD Ex. 3B, p. 5, ll. 1-2. Please identify the regulatory changes and describe the work the District is undertaking pursuant to these regulatory changes.

**RESPONSE:** *40 CFR Part 62 – Federal Plan Requirements for Sewage Sludge Incineration Units Constructed on or Before October 14, 2010 (SSI Rule). The changes finalized in this rule drove the need for MSD to expedite its solids handling alternative from 2026 to 2021.*

*MSD developed a Comprehensive Solids Master Plan Study in 2010 that resulted in a plan to continue the use of the Bissell and Lemay incinerators until 2030. Based upon EPA's 2011 promulgated rule, MSD reviewed the Solids Master Plan and the Maximum Achievable Control Technology (MACT) standards to validate alternatives. This work resulted in MSD designing and installing scrubber upgrades to meet the 2011 MACT Standards. Between 2013 and 2016 and as part of our Asset Management Program, MSD confirmed that the projected maintenance improvements required to extend the life of the incinerators would cause an exceedance of the 50% cumulative cost of changes threshold in the SSI Rule. Therefore, the design of new facilities needed to start in 2026 with construction in 2029. After the SSI Rule was finalized in June 2016, it became certain that the new MACT standards would need to be included in the Bissell WWTP and Lemay WWTP operating permits. The finalization of the 2016 SSI Rule, along with the updated asset management assessment and the 50% threshold for the cumulative cost of changes restricting needed corrective maintenance, drove the need for new solids handling facilities. Therefore, instead of waiting until 2026 to start design, MSD needed to accelerate the design and construction of the new Solids Handling Facilities by five years to 2021–2026 at an estimated cost of \$330M in 2016 dollars.*

10. Richard L. Unverferth states in Direct Testimony that the Wastewater Rate Change Proposal enhances the District's ability to provide adequate sewer and drainage systems and facilities or related services. See MSD Ex. 3C, p. 5, ll. 19-21. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.



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**RESPONSE:** *MSD's determination as to the adequacy of sewer and drainage systems and services is largely defined by meeting regulatory obligations under environmental laws. Regulatory agencies have reviewed and approved Plans that encompass nearly every aspect of the MSD system and its services. For the combined sewer system, our CSO Long Term Control Plan (Exhibits MSD 37B1-5) was approved by the Missouri Department of Natural Resources. Our SSO Control Master Plan (Exhibit MSD 37C) was approved by EPA. All wastewater collection and treatment activities are regulated by Missouri State Operating permits. Agencies also oversee and regulate MSD facilities under air regulations and solid waste regulations. The proposed wastewater rate change will fund the projects necessary to maintain compliance with these obligations to provide adequate sewer wastewater facilities and services. In addition, MSD continuously focuses on effective asset management and proactively evaluating regulatory requirements as outlined in the District's annual Strategic Business and Operating Plan (SBOP). These two items are part of Strategies 4 & 5 of the SBOP. The plan can be found as part of the FY 2019 Operating Budget document (Exhibit MSD 7).*

11. Bret A. Berthold states in Direct Testimony that the Wastewater Rate Change Proposal enhances the District's ability to provide adequate sewer and drainage systems and facilities or related services. See MSD Ex. 3D, p. 5, ll. 9-10. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.

**RESPONSE:** *The adequacy of the proposed wastewater rates are defined by their ability to support compliance with the District's approved Capacity, Management, Operations and Maintenance (CMOM) Plan as required by the Consent Decree (Exhibit MSD37). The CMOM Plan and annual reporting evaluates performance in accordance with defined service level goals. All wastewater collection and treatment activities are regulated by the Missouri State Operating permits.*

12. Marion M. Gee states in Direct Testimony that the Rate Change Proposal imposes a fair and reasonable burden on all classes of ratepayers. See MSD Ex. 3E, p. 3, ll. 22-23. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.

**RESPONSE:** *The cost of service analysis that was included in the Rate Model previously provided to the Rate Commission (see Exhibit MSD 52, tab labeled COS-Results) lists the total cost to serve each customer class as well as the revenue generated from each class if the proposed rates were approved. The difference between the cost of service compared to the revenue under the proposed rates for each class is as follows: Single-Family (0.03%), Multi-Family (0.44%), and Non-Residential (-0.10%). Table 4-20 of the Rate Change Proposal also provides a summary of the aforementioned information (see Exhibit MSD 1, page 4-41).*

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13. Tim R. Snoke states in Direct Testimony 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. See MSD Ex. 3F, p. 8, ll. 6-7. Please (a) describe the analysis that was performed to reach this conclusion; (b) provide copies of any memorandum, report, work paper, summary, analysis, or schedule that supports this conclusion; and (c) describe the rationale for such conclusion.

### **RESPONSE:**

#### **Rate Covenant:**

*The Rate Change Proposal was developed to comply with the covenants of outstanding bonds or indebtedness. Section 6.1 of the Master Bond Ordinance (Exhibit 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 operation 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*
- (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*

*The Wastewater Financial Plan (Table 4-10) in the Rate Change Proposal shows that the proposed rates are expected to be sufficient to cover operating expenses, maintain an adequate reserve (see section 4.7 of the Rate Change Proposal), and fund the CIRP while maintaining debt coverage ratios above the required minimums.*

#### **Senior and Subordinate Bonds:**

*Sections 5.3 and 5.4 of the Master Bond Ordinance specify additional bond tests for new issuances, requiring:*

- (i) a report by an Independent CPA to the effect that historical net operating revenues and investment earnings for a period of 12 consecutive months of the most recent 18 consecutive months prior to the issuance of either Senior Bonds or Subordinate Bonds were equal to at least (a) 125% of the Maximum Annual Debt Service Requirement on all Senior Bonds which will be Outstanding immediately after the issuance of the proposed Subordinate Bonds and (b) 115% of the Maximum Annual Debt Service Requirement on all Bonds which will be Outstanding immediately after the issuance (such calculations may include proforma adjustments to historical net operating revenues equal to 100% of the increased annual amount attributable to any revision in the schedule of rates, fees, and charges for the services, facilities, and commodities furnished by the System, adopted prior to the date of delivery of the proposed Subordinate Bonds and not fully reflected in the historical Net Operating Revenues actually received during such 12-month period), or*

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- (ii) *a report by a Consultant to the effect that the forecasted net operating revenues and investment earnings for each year in the forecast period are expected to equal to at least (a) 125% of the Maximum Annual Debt Service Requirement on all Senior Bonds which will be Outstanding immediately after the issuance of the proposed Subordinate Bonds and (b) 115% of the Maximum Annual Debt Service Requirement on all Bonds which will be Outstanding immediately after the issuance*

*The net operating revenues and debt service totals projected in the Rate Change Proposal and Rate Model show that the proposed rates are expected to be sufficient to meet this test.*

*Reasonable Charges:*

*Section 6.7 of the Master Bond Ordinance requires that "none of the facilities or services afforded by the System will be furnished to any user without a reasonable charge being made therefor." The Rate Change Proposal does not assume or propose that any service be provided for free.*

14. The Rate Proposal states that "Raftelis developed the [wastewater] rates contained in the Rate Proposal based on industry standard rate design methods." See Ex. MSD 1, p. 1. Please identify which "industry" and provide further detail as to how standards were developed? Further, please describe how these industry standards were used to meet the District's "unique needs."

**RESPONSE:** *There are standard industry methodologies for cost of service for wastewater utilities, these methodologies are documented in the Water Environment Federation's Manual of Practice No. 27, Financing and Charges for Wastewater Systems. These standards have been developed by the Financing and Charges for Wastewater Systems Task Force of the Water Environment Federation. This Task Force consisted of 37 members, including six Raftelis employees as well as three employees of Black & Veatch.*

*The standard methodologies and approaches documented in this book have been used in this and previous Rate Commission proceedings to take the revenue requirements, CIRP, demand projections, and financial policies, which are unique to the District, and determine cost of service based rates.*

15. Please describe which metrics the District employed to determine that the proposed debt service for senior revenue bonds, as described on Table ES-1 of the Rate Proposal, Ex. MSD 1, are reasonable. Further, please describe any assumptions that have been made to formulate the proposed debt service levels.

**RESPONSE:** *The debt model was developed by the District's municipal advisor, PFM Financial Advisors, LLC (PFM), with input from the District. It assumes 30 year, level debt service for each new senior revenue bond issuance so that new financing costs are spread evenly throughout the life of each new senior debt issuance. Coupon rates are assumed to range from 5.0% to 5.5%, depending on the year of issuance and the maturity date of the principal. For*

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*additional detail on assumptions used, please refer to the Direct Testimony of Bethany Pugh(Exhibit MSD 3G).*

16. Please describe what risks or exposures could alter the rate model used to develop the proposed rates in the Rate Change Proposal.

**RESPONSE:** *The District faces many risks to the financial plan presented in the Rate Proposal, the primary risks to the District are customer risks (changes in customers or billed usage), inflation risk (changes in inflation for operating and maintenance expense or capital), and interest rate risk (changes in interest rate on debt issued by the District). Another factor that impacts the District is regulatory risk, though we believe it is unlikely any regulatory changes would have a significant impact on the period presented in this Rate Change Proceeding.*

17. Please identify any covenants with which the Rate Change Proposal must comply. Please describe any loans, grants, or provisions of the Consent Decree which were considered in formulating the Rate Change Proposal.

**RESPONSE:** *In addition to the Senior Bonds contemplated in the Rate Change proposal, the District also assumes the use of State Revolving Fund (SRF) loans. Please see the section on SRF Financing in Tim Snoke's Direct Testimony (Exhibit MSD 3F).*

18. The 2015 Rate Change Proposal anticipated rate increases of roughly 10% for each year in the FY21 – FY24 period. This Rate Change Proposal proposes roughly 3% increases annually for this period. Please identify which factors account for the reduction in proposed rate increases?

**RESPONSE:**

a. *The Revenue Requirement for FY21 through FY24 is lower for this Rate Proposal than was projected in the previous Rate Proposal. As shown in the table below this is due to decreases in Operating Expenses (\$71.0M), Debt Service (169.3M) and Cash Financing of Capital (\$122.6M). The majority (\$70.1M) of the decrease in Operating Expenses can be attributed to a reduction in projected expenditures relating to treatment plant and collection system operations as well as declines in engineering expenses due to more engineering staff working on stormwater related activities. Debt Service cost are projected to be less than previously anticipated due to a reduction in the amount of bonds needed to fund the Capital Program, savings from the refunding of prior bond issues which resulted in new bonds being issued at interest rates less than what was previously anticipated, and the elimination of the need to fund debt service reserve accounts. The reduction in the cash funding of the capital program is primarily driven by the impact of the amended consent decree (see Exhibit MSD 1, page 4-15) which resulted in a net \$869.3 million of projected capital expenditures being removed from the FY21 through FY 24 rate cycle. Also, an additional \$50.0 million of fund balance is anticipated to be available to fund the capital program as a result of projected savings from the FY17 through FY21 rate cycle.*

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b. *If the amended consent decree had not been approved; MSD's rate request would have averaged 9.2% over the rate cycle for FY21 through FY24 instead of the 3.3% average that is currently being requested.*

	Fiscal Year				Four Year Total
	2021	2022	2023	2024	
<b><u>2019 Model Revenue Req.</u></b>					
Operating Expenses	\$ 173,226,505	\$ 177,237,606	\$ 183,355,453	\$ 188,431,423	\$ 722,250,987
Debt Service	130,412,383	142,042,661	156,977,164	177,014,609	606,446,817
Cash Financing of Capital	167,479,944	156,464,655	127,083,792	129,043,836	580,072,227
Other Expenses	24,171,643	21,385,079	22,153,443	22,195,733	89,905,898
Addition to / (Use of) Fund Balance	(34,092,981)	(18,225,787)	7,807,304	526,465	(43,984,999)
Revenue Requirement	\$ 461,197,495	\$ 478,904,213	\$ 497,377,156	\$ 517,212,066	\$ 1,954,690,930
<b><u>2015 Model Revenue Req.</u></b>					
Operating Expenses	\$ 189,007,117	\$ 194,984,237	\$ 201,685,392	\$ 207,572,223	\$ 793,248,969
Debt Service	166,405,000	185,773,600	204,801,345	218,743,039	775,722,984
Cash Financing of Capital	136,280,715	154,366,330	182,453,656	229,542,729	702,643,430
Other Expenses	14,457,477	14,750,970	14,958,654	14,439,780	58,606,881
Addition to / (Use of) Fund Balance	(1,602,644)	4,217,109	4,800,636	(1,384,770)	6,030,331
Revenue Requirement	\$ 504,547,666	\$ 554,092,244	\$ 608,699,683	\$ 668,913,001	\$ 2,336,252,595
<b><u>Variance</u></b>					
Operating Expenses	\$ (15,780,612)	\$ (17,746,631)	\$ (18,329,939)	\$ (19,140,800)	\$ (70,997,982)
Debt Service	\$ (35,992,617)	\$ (43,730,939)	\$ (47,824,182)	\$ (41,728,429)	\$ (169,276,167)
Cash Financing of Capital	\$ 31,199,229	\$ 2,098,326	\$ (55,369,864)	\$ (100,498,893)	\$ (122,571,203)
Other Expenses	\$ 9,714,166	\$ 6,634,109	\$ 7,194,789	\$ 7,755,952	\$ 31,299,017
Addition to / (Use of) Fund Balance	\$ (32,490,337)	\$ (22,442,896)	\$ 3,006,668	\$ 1,911,234	\$ (50,015,330)
Revenue Requirement	\$ (43,350,171)	\$ (75,188,031)	\$ (111,322,528)	\$ (151,700,936)	\$ (381,561,665)

19. Please describe how the District's affordability metrics compare to similarly situated utilities.

**RESPONSE:** *Affordability for single-family residential is presented in the following table by comparing Median Household Income to the typical bills included in the Rate Proposal in Figure 5-1. The EPA has indicated that a threshold for affordability may be considered 2% of MHI, which the District is below.*

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City	Population Rank	MHI (b)		Typical Residential (6 ccf per month)		
				Monthly Bill (c) (\$)	Annual Bill as a % of MHI	MHI
Albuquerque	32	49,878	NM	13.08	0.31%	49
Arlington	50	55,562	TX	34.26	0.74%	22
Atlanta	40	51,701	GA	63.06	1.46%	5
Austin	14	63,717	TX	54.67	1.03%	15
Baltimore	21	46,641	MD	62.15	1.60%	3
Boston	22	62,021	MA	37.32	0.72%	25
Charlotte	17	58,202	NC	32.35	0.67%	30
Chicago	3	52,497	IL	45.74	1.05%	13
Cleveland	45	27,854	OH	48.63	2.09%	1
Colorado Springs	41	58,158	CO	30.48	0.63%	36
Columbus	15	49,478	OH	30.47	0.74%	23
Dallas	9	47,285	TX	28.84	0.73%	24
Denver	26	60,098	CO	32.56	0.65%	31
Detroit	18	27,838	MI	41.15	1.77%	2
El Paso	19	44,431	TX	26.60	0.72%	26
Fort Worth	16	57,309	TX	30.14	0.63%	35
Fresno	34	44,853	CA	25.75	0.69%	27
Houston	4	49,399	TX	47.72	1.16%	11
Indianapolis	12	44,709	IN	49.64	1.33%	6
Jacksonville	11	50,555	FL	37.93	0.90%	17
Kansas City	37	50,136	MO	66.34	1.59%	4
Las Vegas	30	53,159	NV	20.50	0.46%	44
Long Beach	36	58,314	CA	9.67	0.20%	51
Los Angeles	2	54,501	CA	30.66	0.68%	28
Louisville	27	49,439	KY	36.78	0.89%	18
Memphis	20	38,230	TN	10.17	0.32%	48
Mesa	38	52,155	AZ	26.76	0.62%	38
Miami	44	33,999	FL	18.28	0.65%	33
Milwaukee	28	38,289	WI	14.02	0.44%	45
Minneapolis	48	55,720	MN	31.06	0.67%	29
Nashville	25	52,858	TN	26.58	0.60%	40
New York City	1	57,782	NY	37.20	0.77%	20
Oakland	47	63,251	CA	13.32	0.25%	50
Oklahoma City	31	51,581	OK	26.27	0.61%	39
Omaha	42	53,789	NE	54.68	1.22%	9
Philadelphia	5	40,649	PA	26.89	0.79%	19
Phoenix	6	52,080	AZ	15.84	0.36%	47
Portland	29	61,532	OR	62.64	1.22%	8
Raleigh	43	61,505	NC	38.54	0.75%	21
Sacramento	35	54,615	CA	19.85	0.44%	46
San Antonio	7	49,711	TX	26.38	0.64%	34
San Diego	5	71,535	CA	36.75	0.62%	37
San Francisco	13	96,265	CA	74.40	0.93%	16
San Jose	10	96,662	CA	38.90	0.48%	43
Seattle	23	79,565	WA	86.88	1.31%	7
Tucson	33	39,617	AZ	34.77	1.05%	12
Tulsa	46	44,577	OK	43.35	1.17%	10
Virginia Beach	39	70,500	VA	30.81	0.52%	42
Washington (a)	24	77,649	DC	37.93	0.59%	41
Wichita	49	48,982	KS	26.34	0.65%	32
<b>St. Louis (FY 2019 Rates)</b>		<b>58,256</b>	<b>MO</b>	<b>50.23</b>	<b>1.03%</b>	<b>14</b>
Median				32.56		
Average				36.18		

(a) Half of Washington's combined Water and Sewer Metering Fee is included.

(b) St. Louis estimated MHI for entire MSD service area. Median Household Income estimate for other cities does not include any outside city areas served. From the United States Census Bureau, American Factfinder "2013-2017 American Community Survey 5-Year Estimates".

(c) Data for other utilities collected in February 2019. Rates for St. Louis are approved rates for FY 2019.

## Exhibit MSD 61A

20. Please describe any other facts and circumstances which demonstrate whether the Rate Change Proposal and all portions thereof is necessary to pay interest and principal falling due on bonds issued to: (a) finance assets of the District; (b) necessary to enable the District to provide for the costs of operation and maintenance; and (c) such other amounts as may be required to cover emergencies and anticipated delinquencies, as required by § 7.040 of the Charter Plan.

**RESPONSE:** *There are no additional facts or circumstances.*

21. Please describe any other facts and circumstances which demonstrate whether the Rate Change Proposal and all portions thereof is consistent with constitutional, statutory, or common law, as amended from time to time, as required by § 7.270(1) of the Charter Plan.

**RESPONSE:** *There are no additional facts or circumstances.*

22. Please describe any other facts and circumstances which demonstrate 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 as required by § 7.270(2) of the Charter Plan and § 4(2)(b) of the Operational Rules..

**RESPONSE:** *There are no additional facts or circumstances.*

23. Please describe any other facts and circumstances which demonstrate 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, as required by § 7.270(3) of the Charter Plan.

**RESPONSE:** *There are no additional facts or circumstances*

24. Please describe any other facts and circumstances which demonstrate 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, as required by § 7.270(4) of the Charter Plan and § 4(2)(d) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

25. Please describe any other facts and circumstances which demonstrate whether the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on all classes of ratepayers, as required by § 7.270(5) of the Charter Plan.

**RESPONSE:** *There are no additional facts or circumstances.*

## Exhibit MSD 61A

26. Please describe any other facts and circumstances which demonstrate whether the Rate Change Proposal and all portions thereof why the Rate Change Proposal is necessary, fair and reasonable, as required by § 4(2)(a) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

27. Please describe any other facts and circumstances which demonstrate whether and to what extent the Rate Change Proposal and all portions thereof is necessary to enable the District to comply with any covenant or provision relating to outstanding bonds or indebtedness of the District, together with a specific quantification of the amount of the Proposed Rate Change is necessary for such purposes, as required by § 4(2)(c) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

28. Please describe any other facts and circumstances which demonstrate that the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on each class of ratepayers, including whether and how cost of service considerations have been factored into such determination as required by § 4(2)(e) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

29. Please describe any other facts and circumstances which demonstrate that the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on each class of ratepayers, including whether and how cost causation principles, have been factored into such determination as required by § 4(2)(e) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

30. Please describe any other facts and circumstances which demonstrate that the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on each class of ratepayers, including whether and how customer impact data has been factored into such determination as required by § 4(2)(e) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

31. Please describe any other facts and circumstances which demonstrate that the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on each class of ratepayers, including whether and how economic development considerations have been factored into such determination as required by § 4(2)(e) of the Operational Rules.



## Exhibit MSD 61A

**RESPONSE:** *There are no additional facts or circumstances. We would like to emphasize that the cost of service analysis does not take into consideration the promotion or discouragement of economic development.*

32. Please describe any other facts and circumstances which demonstrate that the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on each class of ratepayers, including whether and how environmental effects have been factored into such determination as required by § 4(2)(e) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

33. Please describe any other facts and circumstances which demonstrate that the Rate Change Proposal and all portions thereof imposes a fair and reasonable burden on each class of ratepayers, including whether and how any other factors have been factored into such determination as required by § 4(2)(e) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

34. Please (a) describe any other facts and circumstances which demonstrate that the measures taken by the District to ensure that the cost of constructing and maintaining the District's facilities and providing related services are being incurred in a reasonable and efficient manner; and (b) include copies of all internal or external audit reports that address such matters as required by § 4(2)(f) of the Operational Rules.

**RESPONSE:**

a. *There are no additional facts or circumstances.*

b. *The following audit reports have been provided as Exhibits MSD 61D thru 61N. The exhibits include audit reports prepared within the current MSD Rate cycle.*

35. Please describe any other facts and circumstances which demonstrate how, whether and to what extent the Rate Change Proposal and all portions thereof, will affect, impact and comply with the Consent Decree, as required by § 4(2)(g) of the Operational Rules.

**RESPONSE:** *There are no additional facts or circumstances.*

## Exhibit MSD 61A

Respectfully submitted,




Susan M. Myers, General Counsel  
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**CERTIFICATE OF SERVICE**

The undersigned certifies that a copy of the foregoing was sent by electronic transmission to Lisa O. Stump and Brian J. Malone, Lashly & Baer, P.C., on this 20<sup>th</sup> day of March, 2019.

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