

**Kentucky Infrastructure Authority
Projects for
January 2019 Capital Projects Meeting**

- Fund A Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
A16-084	Farmdale Sanitation District (Director Increase)	\$ 321,753	Franklin
A19-015	Louisville and Jefferson County Metropolitan Sewer District	\$ 3,870,000	Jefferson
A19-025	City of Corbin F/B/O Corbin City Utilities Commission	\$ 1,262,600	Knox
A19-028	Louisville and Jefferson County Metropolitan Sewer District	\$ 22,000,000	Jefferson
A19-040	Western Mason Sanitation District	\$ 100,000	Mason

- Fund B Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
B19-006	Warren County Water District	\$ 2,000,000	Warren

- Fund C Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
C19-002	Warren County Water District	\$ 2,000,000	Warren

- Fund F Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
F18-017	City of Lancaster	\$ 4,000,000	Garrard
F19-009	Paintsville Utilities Commission	\$ 2,010,000	Johnson
F19-019	City of Jamestown	\$ 500,000	Russell

EXECUTIVE SUMMARY		Reviewer	Ashley Adams	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 11, 2018	
FUND A, FEDERALLY ASSISTED WASTEWATER		KIA Loan Number	A19-015	
REVOLVING LOAN FUND		WRIS Number	SX21111007	
BORROWER	LOUISVILLE & JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT JEFFERSON COUNTY			
BRIEF DESCRIPTION				
This project will rehabilitate approximately 47,000 linear feet (LF) of sewer lines ranging from 6 to 16 inches with cured-in-place pipe. In addition, over 1,000 top hats will be installed, 55 manholes coated in epoxy, removal of intruding taps and inspections on more than 60,000 LF of sewer, and other miscellaneous improvements.				
PROJECT FINANCING		PROJECT BUDGET		
Fund A Loan	\$3,870,000	Administrative Expenses	\$75,000	
Local Funds	575,000	Eng - Insp	170,000	
		Construction	4,200,000	
TOTAL	<u>\$4,445,000</u>	TOTAL	<u>\$4,445,000</u>	
REPAYMENT	Rate	2.00%	Est. Annual Payment \$243,466	
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Louisville MSD		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Mar-19		
	Construction Start	May-19		
	Construction Stop	May-21		
DEBT PER CUSTOMER	Existing	\$8,967		
	Proposed	\$8,499		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	258,237	\$45.82 (for 4,000 gallons)	
	Additional	0	\$45.82 (for 4,000 gallons)	
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW (in thousands)	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2016	174,026	115,735	58,291	1.5
Audited 2017	186,270	122,034	64,236	1.5
Audited 2018	201,878	124,787	77,091	1.6
Projected 2019	217,067	135,346	81,721	1.6
Projected 2020	233,413	140,424	92,989	1.7
Projected 2021	251,000	145,613	105,387	1.7
Projected 2022	269,766	152,507	117,259	1.8
Projected 2023	290,112	156,855	133,257	1.8

Reviewer: Ashley Adams
Date: December 11, 2018
Loan Number: A19-015

**KENTUCKY INFRASTRUCTURE AUTHORITY
WASTEWATER REVOLVING LOAN FUND (FUND A)
LOUISVILLE AND JEFFERSON COUNTY
METROPOLITAN SEWER DISTRICT
PROJECT REVIEW
SX21111007**

I. PROJECT DESCRIPTION

The Louisville and Jefferson County Metropolitan Sewer District (MSD) is requesting a Fund A loan in the amount of \$3,870,000 for the Nightingale I&I Elimination project. Areas of sanitary sewer upstream of the Nightingale Pump Station were micro-monitored in 2015 and over 40,000 linear feet (LF) of 6"-16" sewer lines were identified for rehabilitation in order to reduce inflow and infiltration (I&I) impacting the need for treatment of groundwater due to I&I in the area. Rehabilitation of the lines will include approximately 47,000 LF of cured-in-place pipe (CIPP) lining of the 6"-16" lines, installation of more than 1,000 top hats on the laterals of the CIPP lines, epoxy coating of the interior of 55 manholes, removal of intruding taps and inspections on more than 60,000 LF of sewer, as well as miscellaneous improvements like chimney seals, point repairs, and manhole frame adjustment.

In April 2009 (amended 2014), MSD entered into a Consent Decree with the Kentucky Environmental and Public Protection Cabinet (KEPPC) and the U.S. Environmental Protection Agency (EPA) to eliminate sewer overflows in its service area. The agreement sets forth requirements for MSD to design and implement projects in their Long-Term Control Plan estimated at over \$979 million by December 31, 2020. A Sanitary Sewer Discharge Plan was due by December 31, 2008 which was completed and includes schedules and deadlines for capital projects to be completed by the end of 2024. To date, MSD has complied with all submittals and report requirements contained in the Amended Consent Decree.

II. PROJECT BUDGET

	Total
Administrative Expenses	\$ 75,000
Engineering Fees - Inspection	170,000
Construction	4,200,000
Total	\$ 4,445,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 3,870,000	87%
Local Funds	575,000	13%
Total	\$ 4,445,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 3,870,000
Less: Principal Forgiveness	0
Amortized Loan Amount	\$ 3,870,000
Interest Rate	2.00%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 235,726
Administrative Fee (0.20%)	7,740
Total Estimated Annual Debt Service	\$ 243,466

V. PROJECT SCHEDULE

Bid Opening	March 2019
Construction Start	May 2019
Construction Stop	May 2021

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

	<u>Current</u>
Residential	235,324
Commercial	22,483
Industrial	430
Total	258,237

B) Rates

	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	08/01/18	08/01/17
Minimum	\$15.75	\$14.73
Per 1,000 Gallons	4.30	4.02
Consent Decree Surcharge	12.87	12.04
Cost for 4,000 gallons	\$45.82	\$42.85
Increase %	6.9%	
Affordability Index (Rate/MHI)	1.2%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility’s service area population was 732,239 with a Median Household Income (MHI) of \$51,419. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2.0% interest rate because the Utility is a regional provider and under Consent Decree with the EPA.

Year	Population		County		County Unemployment	
	City	% Change			Date	Rate
1980	298,451		685,004		June 2005	6.3%
1990	269,063	-9.8%	664,937	-2.9%	June 2010	9.9%
2000	256,231	-4.8%	693,604	4.3%	June 2015	5.0%
2010*	597,337	133.1%	741,096	6.8%	June 2018	4.6%
Current	1,269,550	112.5%				
Cumulative %		325.4%				

* Census data includes all Louisville Metro (est. 2003) starting in 2010

VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - This project does not qualify for Green Project Reserve (GPR) funding.
- 2) Additional Subsidization – This project does not qualify for additional subsidization.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended June 30, 2016 through June 30, 2018 from the combined wastewater and stormwater funds. The non-cash impact of GASB 68, Accounting and Financial Reporting for Pensions, has been removed from fiscal 2016-2018 operating expenses and GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, has been removed from 2018 operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Total revenues increased 14.7% from \$243 million in 2016 to \$279 million in 2018. MSD’s board can approve rate increases up to 7% without needed approval from Louisville Metro Council which they have done each audited year observed (2016-18) driving the annual increases in revenue. Wastewater service charges totaled \$210.6 million in 2018 while stormwater service charges totaled \$63.8 million. Operating expenses increased 7.6% during the same time period from \$87 million to \$94 million.

Expense increases were attributed mostly to increased labor expense as well as various weather events (flooding) that occurred during the audited period observed. The debt coverage ratio for 2016-2018 was 1.5, 1.5, and 1.6 respectively (includes only net operating income).

The 1993 Sewer and Drainage System Revenue Bond Resolution requires MSD to provide available revenues sufficient to pay 110% of each year's aggregate net debt service on revenue bonds and 100% of operating expenses. Each year MSD's audit contains a Comparative Schedule of Debt Service Coverage which includes net operating income as well as other sources of revenue including investment income and current period payments of property owner assessments. When factoring in those additional revenue streams, MSD's debt coverage ratio from 2016-2018 was 1.9, 1.8, and 1.9 respectively. Moody's Investors Service affirmed an Aa3 rating for MSD on June 27, 2018 for outstanding senior revenue bonds with a stable outlook. S&P Global affirmed an AA rating and stable outlook on April 24, 2018.

The 2018 balance sheet reflects a current ratio of 1.1, a debt to equity ratio of 3.7, 34.4 days sales in accounts receivable, and 6.4 months operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will increase 6.9% each forecasted year due to rate increases anticipated from MSD's Board.
- 2) Expenses will increase 4% for inflation and expected increases in general operational expenses for pending projects.
- 3) The forecast includes debt service and for both KIA Loan A19-015 and A19-028 (total of \$25,870,000).
- 4) Debt service coverage is 1.8 in 2022 when principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund A loan.

REPLACEMENT RESERVE

MSD maintains Debt Reserve Accounts equal to the maximum annual debt service requirements on its senior lien obligations (currently \$152 million). No additional replacement reserves will be required for this loan.

X. DEBT OBLIGATIONS

Amounts in thousands

	Outstanding	Maturity
<u>Senior Debt</u>		
2009B Series Revenue Bonds	\$ 6,640	2022
2009A Series Revenue Bonds	52,975	2023
2009C Series Revenue Bonds	180,000	2040
2010A Series Revenue Bonds	330,000	2043
2011A Series Revenue Bonds	250,565	2034
2013A Series Revenue Bonds	115,790	2036
2013B Series Revenue Bonds	115,550	2038
2013C Series Revenue Bonds	99,500	2044
2014A Series Revenue Bonds	79,850	2045
2015A Series Revenue Bonds	173,735	2046
2015B Series Revenue Bonds	76,685	2038
2016A Series Revenue Bonds	149,760	2047
2016B Series Revenue Bonds	28,095	2036
2016C Series Revenue Bonds	67,685	2023
2017A Series Revenue Bonds	175,000	2048
2017B Series Revenue Bonds	34,520	2025
2018A Series Revenue Bonds	60,380	2038
<u>Subordinated Debt</u>		
BAN Series 2018A	226,340	2019
KIA Loan (A209-41 ARRA)	1,871	2032
Total	\$ 2,224,941	

XI. CONTACTS

Legal Applicant	
Entity Name	Louisville & Jefferson County Metropolitan Sewer District
Authorized Official	Tony Parrott (Executive Director)
County	Jefferson
Email	tony.parrott@louisvillemsd.org
Phone	502-540-6533
Address	PO Box 740011 Louisville, KY 40201

Applicant Contact

Name	Stephanie Laughlin
Organization	Louisville MSD
Email	stephanie.laughlin@louisvillemad.org
Phone	502-540-6955
Address	700 W Liberty St Louisville, KY 40203

Project Administrator

Name	Colette Easter
Organization	Louisville MSD
Email	colette.easter@louisvillemad.org
Phone	502-540-6000
Address	700 W Liberty St Louisville, KY 40203

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**LOUISVILLE & JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
FINANCIAL SUMMARY (JUNE YEAR END)**

DOLLARS IN THOUSANDS

	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Audited</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>	<u>Projected</u> <u>2023</u>
Balance Sheet								
Assets								
Current Assets	124,049	125,214	139,927	149,867	161,066	173,605	187,531	203,156
Other Assets	2,775,732	2,934,908	3,164,908	3,123,570	3,142,241	3,167,650	3,190,809	3,228,367
Total	2,899,781	3,060,122	3,304,835	3,273,437	3,303,307	3,341,255	3,378,340	3,431,523
Liabilities & Equity								
Current Liabilities	102,606	99,204	125,320	138,589	141,936	145,855	148,817	150,217
Long Term Liabilities	2,196,595	2,292,430	2,470,841	2,289,182	2,247,897	2,203,993	2,145,592	2,087,192
Total Liabilities	2,299,201	2,391,634	2,596,161	2,427,771	2,389,833	2,349,848	2,294,409	2,237,408
Net Assets	600,580	668,488	708,674	845,666	913,474	991,407	1,083,931	1,194,115
Cash Flow								
Revenues	243,290	259,634	279,149	298,090	318,338	339,983	363,121	387,856
Operating Expenses	87,155	87,637	93,800	97,552	101,454	105,512	109,884	114,273
Other Income	17,891	14,273	16,529	16,529	16,529	16,529	16,529	16,529
Cash Flow Before Debt Service	174,026	186,270	201,878	217,067	233,413	251,000	269,766	290,112
Debt Service								
Existing Debt Service	115,735	122,034	124,787	135,346	140,424	145,613	152,507	155,228
Proposed KIA Loans (A19-015, A19-028)	0	0	0	0	0	0	0	1,627
Total Debt Service	115,735	122,034	124,787	135,346	140,424	145,613	152,507	156,855
Cash Flow After Debt Service	58,291	64,236	77,091	81,721	92,989	105,387	117,259	133,257
Ratios								
Current Ratio	1.2	1.3	1.1	1.1	1.1	1.2	1.3	1.4
Debt to Equity	3.8	3.6	3.7	2.9	2.6	2.4	2.1	1.9
Days Sales in Accounts Receivable	40.1	33.0	34.4	34.4	34.4	34.4	34.4	34.3
Months Operating Expenses in Unrestricted Cash	9.6	5.8	6.4	7.2	8.0	8.9	9.8	10.9
Debt Coverage Ratio	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8

EXECUTIVE SUMMARY		Reviewer	Ashley Adams	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 11, 2018	
FUND A, FEDERALLY ASSISTED WASTEWATER		KIA Loan Number	A19-028	
REVOLVING LOAN FUND		WRIS Number	SX21111101	
BORROWER	LOUISVILLE & JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT JEFFERSON COUNTY			
BRIEF DESCRIPTION				
This project will rehabilitate and expand the Hite Creek Water Quality Treatment Center (WQTC). The expansion will increase the WQTC from 6.0 MGD to 9.0 MGD average daily flow and 24 MGD wet weather flow. The increase in capacity will eliminate sanitary sewer overflows upstream of the facility and allow for future growth needs.				
PROJECT FINANCING		PROJECT BUDGET		
Fund A Loan	\$22,000,000	Eng - Design / Const	1,580,000	
Local Funds	5,829,000	Eng - Insp	1,141,000	
		Construction	22,820,000	
		Contingency	1,147,000	
		Other	1,141,000	
TOTAL	\$27,829,000	TOTAL	\$27,829,000	
REPAYMENT	Rate	2.00%	Est. Annual Payment	\$1,384,046
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Louisville MSD		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Feb-19		
	Construction Start	May-19		
	Construction Stop	May-21		
DEBT PER CUSTOMER	Existing	\$8,967		
	Proposed	\$8,499		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	258,237	\$45.82	(for 4,000 gallons)
	Additional	0	\$45.82	(for 4,000 gallons)
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW (in thousands)	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2016	174,026	115,735	58,291	1.5
Audited 2017	186,270	122,034	64,236	1.5
Audited 2018	201,878	124,787	77,091	1.6
Projected 2019	217,067	135,346	81,721	1.6
Projected 2020	233,413	140,424	92,989	1.7
Projected 2021	251,000	145,613	105,387	1.7
Projected 2022	269,918	152,507	117,411	1.8
Projected 2023	290,264	156,855	133,409	1.9

Reviewer: Ashley Adams
Date: December 11, 2018
Loan Number: A19-028

**KENTUCKY INFRASTRUCTURE AUTHORITY
WASTEWATER REVOLVING LOAN FUND (FUND A)
LOUISVILLE AND JEFFERSON COUNTY
METROPOLITAN SEWER DISTRICT
PROJECT REVIEW
SX21111101**

I. PROJECT DESCRIPTION

The Louisville and Jefferson County Metropolitan Sewer District (MSD) is requesting a Fund A loan in the amount of \$22,000,000 for the Hite Creek Water Quality Treatment Center project. Rehabilitation and expansion of Hite Creek (HC) Water Quality Treatment Center (WQTC) will consist of an expansion of the WQTC from 6.0 MGD to 9.0 MGD average daily flow and 24.0 MGD wet weather flow. The increase in capacity will eliminate SSOs upstream of the facility and allow for future growth demands. Rehabilitation of aging infrastructure will include the replacement of bar screens, existing ultraviolet (UV) system, and sludge holding tank blowers. The addition of aeration capacity/nutrient removal, aeration tank blower expansion and new tertiary disc filtration will increase treatment capacity to allow for future needs with the plant expecting to exceed the 6.0 MGD treatment capacity by 2021.

This project will also provide the first regional plant with the ability to dewater sludge on-site, eliminating over 400 truckloads of sludge being trucked to Morris Forman Treatment Center on the other side of the county. The rehabilitation of the original clarifiers for centrate equalization will also be an upgrade associated with the dewatering process. The project includes a treated effluent recycle system to supply non-potable water throughout the plant for general water use. The inclusion of this system prevents (backflow-prevented) potable water use for the same demands. Plant effluent will be supplied to continuous water uses like spray bars and polymer make-up water and periodic water uses like clean-up water. Following the project, potable water use will be limited to the administration building potable water demands. This feature will help with water efficiency and help plan for sustainable infrastructure.

In April 2009 (amended 2014), MSD entered into a Consent Decree with the Kentucky Environmental and Public Protection Cabinet (KEPPC) and the U.S. Environmental Protection Agency (EPA) to eliminate sewer overflows in its service area. The agreement sets forth requirements for MSD to design and implement projects in their Long-Term Control Plan estimated at over \$979 million by December 31, 2020. A Sanitary Sewer Discharge Plan was due by December 31, 2008 which was completed and includes schedules and deadlines for capital projects to be completed by the end of 2024. To date, MSD has complied with all submittals and report requirements contained in the Amended Consent Decree.

II. PROJECT BUDGET

	<u>Total</u>
Engineering Fees - Design	\$ 1,580,000
Engineering Fees - Inspection	1,141,000
Construction	22,820,000
Contingency	1,147,000
Other	1,141,000
Total	\$ 27,829,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 22,000,000	79%
Local Funds	5,829,000	21%
Total	\$ 27,829,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$22,000,000
Less: Principal Forgiveness	<u>0</u>
Amortized Loan Amount	\$22,000,000
Interest Rate	2.00%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 1,340,046
Administrative Fee (0.20%)	<u>44,000</u>
Total Estimated Annual Debt Service	\$ 1,384,046

V. PROJECT SCHEDULE

Bid Opening	February 2019
Construction Start	May 2019
Construction Stop	May 2021

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

	<u>Current</u>
Residential	235,324
Commercial	22,483
Industrial	<u>430</u>
Total	258,237

B) Rates

	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	08/01/18	08/01/17
Minimum	\$15.75	\$14.73
Per 1,000 Gallons	4.30	4.02
Consent Decree Surcharge	12.87	12.04
Cost for 4,000 gallons	\$45.82	\$42.85
Increase %	6.9%	
Affordability Index (Rate/MHI)	1.2%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility’s service area population was 732,239 with a Median Household Income (MHI) of \$51,419. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2.0% interest rate because the Utility is a regional provider and under Consent Decree with the EPA.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	298,451		685,004		June 2005	6.3%
1990	269,063	-9.8%	664,937	-2.9%	June 2010	9.9%
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2010*	597,337	133.1%	741,096	6.8%	June 2018	4.6%
Current	1,269,550	112.5%				
Cumulative %		325.4%				

* Census data includes all Louisville Metro (est. 2003) starting in 2010

VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - This project does not qualify for Green Project Reserve (GPR) funding.
- 2) Additional Subsidization – This project does not qualify for additional subsidization.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended June 30, 2016 through June 30, 2018 from the combined wastewater and stormwater funds. The non-cash impact of GASB 68, Accounting and Financial Reporting for Pensions, has been removed from fiscal 2016-2018 operating expenses

and GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, has been removed from 2018 operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Total revenues increased 14.7% from \$243 million in 2016 to \$279 million in 2018. MSD's board can approve rate increases up to 7% without needed approval from Louisville Metro Council which they have done each audited year observed (2016-18) driving the annual increases in revenue. Wastewater service charges totaled \$210.6 million in 2018 while stormwater service charges totaled \$63.8 million. Operating expenses increased 7.6% during the same time period from \$87 million to \$94 million. Expense increases were attributed mostly to increased labor expense as well as various weather events (flooding) that occurred during the audited period observed. The debt coverage ratio for 2016-2018 was 1.5, 1.5, and 1.6 respectively (includes only net operating income).

The 1993 Sewer and Drainage System Revenue Bond Resolution requires MSD to provide available revenues sufficient to pay 110% of each year's aggregate net debt service on revenue bonds and 100% of operating expenses. Each year MSD's audit contains a Comparative Schedule of Debt Service Coverage which includes net operating income as well as other sources of revenue including investment income and current period payments of property owner assessments. When factoring in those additional revenue streams, MSD's debt coverage ratio from 2016-2018 was 1.9, 1.8, and 1.9 respectively. Moody's Investors Service affirmed an Aa3 rating for MSD on June 27, 2018 for outstanding senior revenue bonds with a stable outlook. S&P Global affirmed an AA rating and stable outlook on April 24, 2018.

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PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will increase 6.9% each forecasted year due to rate increases anticipated from MSD's Board.
- 2) Expenses will increase 4% for inflation and expected increases in general operational expenses for pending projects.
- 3) The forecast includes debt service for both KIA Loan A19-015 and A19-028 (total of \$25,870,000).
- 4) Debt service coverage is 1.8 in 2022 when principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund A loan.

REPLACEMENT RESERVE

MSD maintains Debt Reserve Accounts equal to the maximum annual debt service requirements on its senior lien obligations (currently \$152 million). No additional replacement reserves will be required for this loan.

X. DEBT OBLIGATIONS

Amounts in thousands

	<u>Outstanding</u>	<u>Maturity</u>
<u>Senior Debt</u>		
2009B Series Revenue Bonds	\$ 6,640	2022
2009A Series Revenue Bonds	52,975	2023
2009C Series Revenue Bonds	180,000	2040
2010A Series Revenue Bonds	330,000	2043
2011A Series Revenue Bonds	250,565	2034
2013A Series Revenue Bonds	115,790	2036
2013B Series Revenue Bonds	115,550	2038
2013C Series Revenue Bonds	99,500	2044
2014A Series Revenue Bonds	79,850	2045
2015A Series Revenue Bonds	173,735	2046
2015B Series Revenue Bonds	76,685	2038
2016A Series Revenue Bonds	149,760	2047
2016B Series Revenue Bonds	28,095	2036
2016C Series Revenue Bonds	67,685	2023
2017A Series Revenue Bonds	175,000	2048
2017B Series Revenue Bonds	34,520	2025
2018A Series Revenue Bonds	60,380	2038
<u>Subordinated Debt</u>		
BAN Series 2018A	226,340	2019
KIA Loan (A209-41 ARRA)	1,871	2032
Total	\$ 2,224,941	

XI. CONTACTS

Legal Applicant	
Entity Name	Louisville & Jefferson County Metropolitan Sewer District
Authorized Official	Tony Parrott (Executive Director)
County	Jefferson
Email	tony.parrott@louisvillemsd.org
Phone	502-540-6533
Address	PO Box 740011 Louisville, KY 40201

Applicant Contact	
Name	Stephanie Laughlin
Organization	Louisville MSD
Email	stephanie.laughlin@louisvillemsd.org
Phone	502-540-6955
Address	700 W Liberty St Louisville, KY 40203

Project Administrator	
Name	Colette Easter
Organization	Louisville MSD
Email	colette.easter@louisvillemsd.org
Phone	502-540-6000
Address	700 W Liberty St Louisville, KY 40203

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**LOUISVILLE & JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
FINANCIAL SUMMARY (JUNE YEAR END)**

DOLLARS IN THOUSANDS

	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Audited</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>	<u>Projected</u> <u>2023</u>
Balance Sheet								
Assets								
Current Assets	124,049	125,214	139,927	149,867	161,066	173,605	187,546	203,187
Other Assets	2,775,732	2,934,908	3,164,908	3,123,570	3,142,241	3,167,650	3,190,946	3,228,640
Total	2,899,781	3,060,122	3,304,835	3,273,437	3,303,307	3,341,255	3,378,492	3,431,827
Liabilities & Equity								
Current Liabilities	102,606	99,204	125,320	138,589	141,936	145,855	148,817	150,217
Long Term Liabilities	2,196,595	2,292,430	2,470,841	2,289,182	2,247,897	2,203,993	2,145,592	2,087,192
Total Liabilities	2,299,201	2,391,634	2,596,161	2,427,771	2,389,833	2,349,848	2,294,409	2,237,408
Net Assets	600,580	668,488	708,674	845,666	913,474	991,407	1,084,083	1,194,419
Cash Flow								
Revenues	243,290	259,634	279,149	298,090	318,338	339,983	363,121	387,856
Operating Expenses	87,155	87,637	93,800	97,552	101,454	105,512	109,732	114,121
Other Income	17,891	14,273	16,529	16,529	16,529	16,529	16,529	16,529
Cash Flow Before Debt Service	174,026	186,270	201,878	217,067	233,413	251,000	269,918	290,264
Debt Service								
Existing Debt Service	115,735	122,034	124,787	135,346	140,424	145,613	152,507	155,228
Proposed KIA Loans (A19-015, A19-028)	0	0	0	0	0	0	0	1,627
Total Debt Service	115,735	122,034	124,787	135,346	140,424	145,613	152,507	156,855
Cash Flow After Debt Service	58,291	64,236	77,091	81,721	92,989	105,387	117,411	133,409
Ratios								
Current Ratio	1.2	1.3	1.1	1.1	1.1	1.2	1.3	1.4
Debt to Equity	3.8	3.6	3.7	2.9	2.6	2.4	2.1	1.9
Days Sales in Accounts Receivable	40.1	33.0	34.4	34.4	34.4	34.4	34.4	34.3
Months Operating Expenses in Unrestricted Cash	9.6	5.8	6.4	7.2	8.0	8.9	9.8	10.9
Debt Coverage Ratio	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.9

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND A, FEDERALLY ASSISTED WASTEWATER REVOLVING LOAN FUND		Reviewer Date KIA Loan Number WRIS Number	Meili Sun December 11, 2018 A16-084 (Increase) SX21073082	
BORROWER	FARMDALE SANITATION DISTRICT FRANKLIN COUNTY			
BRIEF DESCRIPTION				
<p>This is an increase in the amount of \$21,753 to a previously approved loan in the amount of \$300,000. The new total loan amount is \$321,753. The increase is needed to address the emergency conditions at the Coolbrook plant. Recent and progressive failing structural integrity affecting the main metal tank of the wastewater treatment plant severely threatens the ability of Farmdale Sanitation District to provide safe treatment of wastewater serving approximately 200 of its customers in the Coolbrook Subdivision.</p> <p>The Farmdale Sanitation District received a \$300,000 Fund A loan commitment for the Ridgelea Investments Inc. Package Treatment Plant Abandonment project on June 2, 2016. The original scope involved improvements to three package treatment plants: Edgewood, Meadowbrook, and Farmgate, but has been expanded to include Evergreen, Farmdale Subdivision, and Coolbrook systems. This project will provide improvements to a total of six package treatment plants along with collection system repairs to mitigate excessive infiltration and inflow (I/I) which cause sanitary sewer overflows and treatment plant violations.</p>				
PROJECT FINANCING		PROJECT BUDGET		
Fund A Loan	\$321,753	RD Fee %	Actual %	
		Administrative Expenses	\$8,000	
		Eng - Design / Const	12.2% 10.5% 21,000	
		Eng - Insp	10.4% 9.1% 18,300	
		Construction	138,903	
		Contingency	61,490	
TOTAL	\$321,753	TOTAL	\$321,753	
REPAYMENT	Rate Term	1.75% 1 Years	Est. Annual Payment 1st Payment 6 Mo. after first draw \$16,332	
PROFESSIONAL SERVICES	Engineer Bond Counsel	HMB Professional Engineers Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening Construction Start Construction Stop	Sep-17 Oct-17 Apr-19		
DEBT PER CUSTOMER	Existing Proposed	\$0 \$46		
OTHER DEBT	See Attached			
RESIDENTIAL RATES	Current	Users 349	Avg. Bill \$34.50 (for 4,000 gallons)	
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
PSC Report 2015	14,714	0	14,714	n/a
PSC Report 2016	(4,059)	0	(4,059)	n/a
PSC Report 2017	(2,570)	0	(2,570)	n/a
Projected 2018	(4,790)	0	(4,790)	n/a
Projected 2019	12,946	8,166	4,780	1.6
Projected 2020	10,637	8,166	2,471	1.3
Projected 2021	8,281	0	8,281	n/a
Projected 2022	5,878	0	5,878	n/a

Reviewer: Meili Sun
Date: December 11, 2018
Loan Number: A16-084 (Increase)

**KENTUCKY INFRASTRUCTURE AUTHORITY
WASTEWATER REVOLVING LOAN FUND (FUND A)
FARMDALE SANITATION DISTRICT, FRANKLIN COUNTY
PROJECT REVIEW
SX21073082**

I. PROJECT DESCRIPTION

This is an increase in the amount of \$21,753 to a previously approved loan in the amount of \$300,000. The new loan amount is \$321,753. The increase is needed to address the emergency conditions at the Coolbrook plant. Recent and progressive failing structural integrity of the main tank at the wastewater treatment plant severely threatens the ability of Farmdale Sanitation District to provide safe treatment of wastewater serving approximately 200 of its customers in the Coolbrook Subdivision.

The Farmdale Sanitation District received a \$300,000 Fund A loan commitment for the Ridgelea Investments Inc. Package Treatment Plant Abandonment project on June 2, 2016. The original scope involved improvements to three package treatment plants: Edgewood, Meadowbrook, and Farmgate, but has been expanded to include Evergreen, Farmdale Subdivision, and Coolbrook systems. This project will provide improvements to a total of six package treatment plants along with collection system repairs to mitigate excessive infiltration and inflow (I/I) which cause sanitary sewer overflows and treatment plant violations.

This project is being funded out of an Emergency Project CWSRF account. This account allows projects that do not appear on the Project Priority List but require assistance as a result of unanticipated failures of wastewater infrastructure that have a direct adverse effect on public health and the quality of surface and groundwater, to receive funding and potential loan principal forgiveness.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 8,000
Legal Expenses	4,250
Land, Easements	1,000
Planning	68,810
Engineering Fees - Design / Const	21,000
Engineering Fees - Inspection	18,300
Construction	138,903
Contingency	61,490
Total	\$ 321,753

III. PROJECT FUNDING

	Amount	%
Fund A Loan	\$ 321,753	100%
Total	\$ 321,753	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 321,753
Less: Principal Forgiveness	305,665
Amortized Loan Amount	\$ 16,088
Interest Rate	1.75%
Loan Term (Years)	1
Estimated Annual Debt Service	\$ 16,299
Administrative Fee (0.20%)	32
Total Estimated Annual Debt Service	\$ 16,332

V. PROJECT SCHEDULE

Bid Opening	September 2017
Construction Start	October 2017
Construction Stop	April 2019

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Current
Residential	349
Commercial	0
Industrial	0
Total	349

B) Rates

	Current
Date of Last Rate Increase	04/08/11
Flat Rate	\$ 34.50
Increase %	
Affordability Index (Rate/MHI)	0.9%

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Districts service area population was 848 with the City of Frankfort’s Median Household Income (MHI) at \$44,256. The median household income for the Commonwealth is \$43,036. The project will qualify for a 1.75% interest rate.

Year	Population		County Unemployment	
	County	% Change	Date	Rate
1980	41,830		June 2005	5.0%
1990	43,781	4.7%	June 2010	8.8%
2000	47,687	8.9%	June 2015	4.6%
2010	49,285	3.4%	June 2018	4.3%
Current	49,982	1.4%		
Cumulative %		19.5%		

VIII. 2015 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - This project does not qualify for Green Project Reserve (GPR) funding.
- 2) Additional Subsidization – This project qualifies for additional subsidization in the amount of \$305,665.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the Public Service Commission annual reports for the years ended December 31, 2015 through December 31, 2017 for Ridgelea Investments, Inc. for the initial three systems (Edgewood, Meadowbrook, and Farmgate) that were acquired in 2017.

Projections for the four additional systems (Farmdale, Coolbrook, Evergreen, and Huntington Woods) that were subsequently acquired are excluded due to insufficient credible historical data. Projections will be updated in conjunction with ongoing credit monitoring once the District has four consecutive quarters of financial experience for all seven locations.

HISTORY

Operating revenues decreased 12.0% from \$123,323 in 2015 to \$108,420 in 2017 while expenses averaged \$118,638 during the same period. The debt coverage ratio was not applicable from 2015 to 2017 due to the absence of any debt service.

The balance sheet reflects a current ratio of 0.1, a debt to equity ratio of (1.3), and 0.9 month of operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues remain flat for growth and inflation.
- 2) Cash flow will increase approximately \$20,000 by the end of fiscal 2019. Improvements could be attributable to a combination of expense decreases and revenue increases once the District is permitted to adjust rates for the originally acquired locations.
- 3) 2% increase will be applied annually to operating expenses for general inflation.
- 4) Debt service coverage is 1.6 in 2019 when the principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund A loan.

REPLACEMENT RESERVE

There is no replacement reserve requirement due to a short loan term.

X. **DEBT OBLIGATIONS**

None.

XI. **CONTACTS**

Legal Applicant	
Entity Name	Farmdale Sanitation District
Authorized Official	Allan Alsip (Chairman)
County	Franklin
Email	afalsip@gmail.com
Phone	(502) 227-7630
Address	161 Travis Circle Frankfort, KY 40601

Project Contact - Applicant

Name	Ann Northcutt
Organization	Franklin County Fiscal Court
Email	anorthcutt@franklincountyky.com
Phone	(502) 875-8751
Address	313 W Main St Frankfort, KY 40601

Project Administrator / Consulting Engineer

Name	Jeff Reynolds
Organization	HMB Professional Engineers
Email	jreynolds@hmbpe.com
Phone	(502) 695-9800
Address	3 HMB Circle Frankfort, KY 40601

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**FARMDALE SANITATION DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)**

	<u>PSC Report</u> <u>2015</u>	<u>PSC Report</u> <u>2016</u>	<u>PSC Report</u> <u>2017</u>	<u>Projected</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>
Balance Sheet								
Assets								
Current Assets	3,744	6,849	6,776	1,986	6,766	9,237	17,518	23,396
Other Assets	39,125	34,359	17,752	15,364	324,004	310,891	297,778	284,665
Total	42,869	41,208	24,528	17,350	330,770	320,128	315,296	308,061
Liabilities & Equity								
Current Liabilities	91,330	100,890	100,890	102,850	104,850	106,950	109,050	111,150
Long Term Liabilities	0	0	0	0	16,088	0	0	0
Total Liabilities	91,330	100,890	100,890	102,850	120,938	106,950	109,050	111,150
Net Assets	(48,461)	(59,682)	(76,362)	(85,500)	209,832	213,178	206,246	196,911
Cash Flow								
Revenues	123,323	132,256	108,420	108,420	128,420	128,420	128,420	128,420
Operating Expenses	108,609	136,315	110,990	113,210	115,474	117,783	120,139	122,542
Cash Flow Before Debt Service	14,714	(4,059)	(2,570)	(4,790)	12,946	10,637	8,281	5,878
Debt Service								
Proposed KIA Loan	0	0	0	0	8,166	8,166	0	0
Total Debt Service	0	0	0	0	8,166	8,166	0	0
Cash Flow After Debt Service	14,714	(4,059)	(2,570)	(4,790)	4,780	2,471	8,281	5,878
Ratios								
Current Ratio	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.2
Debt to Equity	(1.9)	(1.7)	(1.3)	(1.2)	0.6	0.5	0.5	0.6
Days Sales in Accounts Receivable	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Months Operating Expenses in Unrestricted Cash	0.4	0.7	0.7	0.2	0.7	0.9	1.7	2.2
Debt Coverage Ratio	n/a	n/a	n/a	n/a	1.6	1.3	n/a	n/a

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND A, FEDERALLY ASSISTED WASTEWATER REVOLVING LOAN FUND		Reviewer Date KIA Loan Number WRIS Number	Meili Sun December 11, 2018 A19-025 SX21121004	
BORROWER		CITY OF CORBIN F/B/O CORBIN CITY UTILITIES COMMISSION KNOX COUNTY		
BRIEF DESCRIPTION This project entails the construction of 3,000 LF of 15 inch gravity relief sewer along Master Street in downtown Corbin to address the City's SSO problems. The additional gravity relief will increase capacity needed to process the resulting flow during inclement weather.				
PROJECT FINANCING		PROJECT BUDGET		
Fund A Loan	\$1,262,600	Administrative Expenses	\$50,000	
Local Fund	351,360	Eng - Design / Const	8.4% 7.8% 107,700	
	-	Eng - Insp	5.2% 4.9% 67,400	
	-	Construction	1,262,600	
	-	Contingency	126,260	
TOTAL	\$1,613,960	TOTAL	\$1,613,960	
REPAYMENT	Rate Term	0.50% 20 Years	Est. Annual Payment 1st Payment 6 Mo. after first draw \$68,943	
PROFESSIONAL SERVICES	Engineer Bond Counsel	GRW Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening Construction Start Construction Stop	Mar-19 Jun-19 Jan-20		
DEBT PER CUSTOMER	Existing Proposed	\$2,137 \$2,386		
OTHER DEBT	See Attached			
RESIDENTIAL RATES	Current Additional	<u>Users</u> 4,481 0	<u>Avg. Bill</u> \$21.72 (for 4,000 gallons) \$21.72 (for 4,000 gallons)	
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2015	1,953,933	164,390	1,789,543	11.9
Audited 2016	1,068,316	167,121	901,195	6.4
Audited 2017	1,222,193	175,804	1,046,389	7.0
Projected 2018	1,484,400	408,718	1,075,682	3.6
Projected 2019	1,511,884	642,464	869,420	2.4
Projected 2020	1,296,602	676,936	619,666	1.9
Projected 2021	1,080,279	711,407	368,872	1.5
Projected 2022	859,629	711,407	148,222	1.2

Reviewer: Meili Sun
Date: December 11, 2018
Loan Number: A19-025

**KENTUCKY INFRASTRUCTURE AUTHORITY
WASTEWATER REVOLVING LOAN FUND (FUND A)
CITY OF CORBIN F/B/O CORBIN CITY UTILITIES COMMISSION, KNOX COUNTY
PROJECT REVIEW
SX21121004**

I. PROJECT DESCRIPTION

The Corbin City Utilities Commission owns and maintains an existing sewer main along Master Street in the downtown area. The service line is undersized and often overwhelmed during rainfall resulting in sanitary overflow. This project entails the construction of 3,000 LF of 15 inch gravity relief sewer along Master Street to address the City's SSO problems. The gravity relief will increase capacity needed to process excess flow during increment weather.

The Commission currently provides services to approximately 4,000 electric customers, 6,500 water customers, and 4,500 sewer customers.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 50,000
Engineering Fees – Design	107,700
Engineering Fees – Inspection	67,400
Construction	1,262,600
Contingency	126,260
Total	\$ 1,613,960

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
KIA Fund A Loan	\$ 1,262,600	78%
Local Fund	351,360	22%
Total	\$1,613,960	

IV. KIA DEBT SERVICE

Amortized Loan Amount	\$	1,262,600
Interest Rate		0.50%
Loan Term (Years)		20
Estimated Annual Debt Service	\$	66,418
Administrative Fee (0.20%)		2,525
Total Estimated Annual Debt Service	\$	68,943

V. PROJECT SCHEDULE

Bid Opening	March 2019
Construction Start	June 2019
Construction Stop	January 2020

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers (Sewer)

	Current
Residential	3,578
Commercial	892
Institutional	4
Industrial	7
Total	4,481

B) Rates

	Sewer Inside City		Sewer Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	02/01/18	01/01/14	02/01/18	01/01/14
First 1,000 Gallons	\$11.28	\$8.68	\$20.72	\$15.35
Per 1,000 Gallons	3.48	2.68	4.52	3.35
Cost for 4,000 gallons	\$21.72	\$16.72	\$34.28	\$25.40
Increase %	29.9%		35.0%	
Affordability Index (Rate/MHI)	0.9%	0.7%	1.5%	1.1%

	Water Inside City		Water Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	02/01/18	01/01/14	02/01/18	01/01/14
First 1,000 Gallons	\$ 6.85	\$6.23	\$12.88	\$11.20
Per 1,000 Gallons	1.90	1.73	2.53	2.20
Cost for 4,000 gallons	\$12.55	\$11.42	\$20.47	\$17.80
Increase %	9.9%		15.0%	
Affordability Index (Rate/MHI)	0.5%	0.5%	0.9%	0.8%

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 13,022 with a Median Household Income (MHI) of \$28,297. The median household income for the Commonwealth is \$44,811. The project will qualify for a 0.50% interest rate with its MHI below 80% of the State average.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	8,075		30,239		June 2005	6.6%
1990	7,419	-8.1%	29,676	-1.9%	June 2010	12.8%
2000	7,742	4.4%	31,795	7.1%	June 2015	8.5%
2010	7,304	-5.7%	31,883	0.3%	June 2018	7.3%
Current	7,306	0.0%	31,740	-0.4%		
Cumulative %		-9.5%		5.0%		

VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - This project does not qualify for Green Project Reserve (GPR) funding.
- 2) Additional Subsidization – This project does not qualify for additional subsidization.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended June 30, 2015 through June 30, 2017. The non-cash impact of GASB 68, Accounting and Financial Reporting for Pensions, has been removed from fiscal 2015, 2016, and 2017 operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Combined water, sewer, and electric operating revenues went up 3.5% from \$11.00 million in 2015 to \$11.39 million in 2017 due to an increase in overall sales and service charges. Operating expenses increased 12.4% during the same period as a result of a wholesale power rate increase. The Commission currently purchases power from the Kentucky Utilities Company for retail at the electric system. The debt coverage ratio was 11.9, 6.4, and 7.0 in 2015, 2016, and 2017 respectively.

The balance sheet reflects a current ratio of 2.9, a debt to equity ratio of 0.3, 60.9 days sales in accounts receivable, and 1.9 months operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Sewer revenues will increase 30% and water revenues will increase 10% by 2019 for rate increases effective February 1, 2018.
- 2) Expenses will increase 2% annually for general inflation.
- 3) The Commission will contribute \$351,360 of its local fund to subsidize the project.
- 4) Debt service coverage is 1.5 in 2021 when full year principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund A loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$64,000 total) of the final amount borrowed to be funded annually (\$3,200 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	Outstanding	Maturity
KIA B96-03 Loan	\$ 9,046	2018
Mortgage Promissory Note	1,172,695	2018
KIA A15-035 i.a.o. \$8,684,115	8,392,143	2038
Total	\$ 9,573,884	

XI. CONTACTS

Legal Applicant	
Name	Corbin City Utilities Commission
Address	1515 Cumberland Falls Hwy Corbin, KY 40701
County	Knox
Authorized Official	Terry, Martin, Chairman
Phone	(606) 528-4026
Email	ron.herd@corbinutilities.com

Project Contact - Applicant	
Name	Ronald W Herd
Representing	Corbin City Utilities Commission
Address	1515 Cumberland Falls Hwy, PO Box 1350 Corbin, KY 40701
Phone	(606) 528-4026
Email	ron.herd@corbinutilities.com

Project Administrator	
Name	GRW
Address	801 Corporate Drive Lexington, KY 40503
Contact	Laura Gilkerson
Phone	(859) 223-3999
Email	LGilkerson@grwinc.com

Consulting Engineer	
Name	John Martin
Firm	GRW
Address	801 Corporate Drive Lexington, KY 40503
Phone	(859) 223-3999
Email	JMartin@grwinc.com

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**CORBIN CITY F/B/O CORBIN CITY UTILITIES COMMISSION
FINANCIAL SUMMARY (DECEMBER YEAR END)**

	<u>Audited</u> <u>2015</u>	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Projected</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>
Balance Sheet								
Assets								
Current Assets	5,877,405	5,978,884	5,395,049	5,688,014	5,904,798	6,028,732	6,102,506	6,132,150
Other Assets	39,091,120	40,442,372	46,718,013	46,052,586	46,603,039	45,349,041	43,894,408	42,263,255
Total	44,968,525	46,421,256	52,113,062	51,740,600	52,507,837	51,377,773	49,996,914	48,395,405
Liabilities & Equity								
Current Liabilities	2,551,926	5,327,888	1,835,036	1,984,790	2,227,615	2,473,621	2,549,739	2,627,131
Long Term Liabilities	961,069	939,744	10,533,451	10,419,223	11,653,042	11,123,283	10,555,106	9,948,037
Total Liabilities	3,512,995	6,267,632	12,368,487	12,404,013	13,880,657	13,596,904	13,104,845	12,575,168
Net Assets	41,455,530	40,153,624	39,744,575	39,336,587	38,627,180	37,780,869	36,892,069	35,820,237
Cash Flow								
Revenues	11,003,020	10,918,391	11,393,464	11,859,517	12,116,635	12,116,634	12,116,634	12,116,634
Operating Expenses	9,067,677	9,868,665	10,192,323	10,396,169	10,625,802	10,841,084	11,057,407	11,278,057
Other Income	18,590	18,590	21,052	21,052	21,052	21,052	21,052	21,052
Cash Flow Before Debt Service	1,953,933	1,068,316	1,222,193	1,484,400	1,511,884	1,296,602	1,080,279	859,629
Debt Service								
Existing Debt Service	164,390	167,121	175,804	408,718	642,464	642,464	642,464	642,464
Proposed KIA Loan	0	0	0	0	0	34,472	68,943	68,943
Total Debt Service	164,390	167,121	175,804	408,718	642,464	676,936	711,407	711,407
Cash Flow After Debt Service	1,789,543	901,195	1,046,389	1,075,682	869,420	619,666	368,872	148,222
Ratios								
Current Ratio	2.3	1.1	2.9	2.9	2.7	2.4	2.4	2.3
Debt to Equity	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.4
Days Sales in Accounts Receivable	45.9	77.9	60.9	60.9	60.9	60.9	60.9	60.9
Months Operating Expenses in Unrestricted Cash	3.9	1.9	1.9	2.1	2.2	2.3	2.4	2.3
Debt Coverage Ratio	11.9	6.4	7.0	3.6	2.4	1.9	1.5	1.2

EXECUTIVE SUMMARY		Reviewer	Ashley Adams	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 11, 2018	
FUND A, FEDERALLY ASSISTED WASTEWATER		KIA Loan Number	A19-040	
REVOLVING LOAN FUND		WRIS Number	SX21161006	
BORROWER	WESTERN MASON SANITATION DISTRICT MASON COUNTY			
BRIEF DESCRIPTION				
This project will extend an 8" PVC gravity sewer line approximately 566 linear feet in order to eliminate an outdated and aged sewer package treatment plant (PTP) currently serving the Pinewood Subdivision. The current PTP which is over 30 years old could fail at any time causing service loss to 75 households in the subdivision. The PTP was issued a Notice of Violation on August 30, 2016. Flow will be directed to the City of Maysville which currently treats all waste under service agreement with the Western Mason Sanitation District. The Sanitation District will retain all customer revenue as a result of the project.				
PROJECT FINANCING		PROJECT BUDGET		
Fund A Loan	\$100,000	RD Fee %	Actual %	
		Administrative Expenses		\$5,000
		Eng - Design / Const	14.6% 13.8%	9,400
		Eng - Insp	13.8% 12.1%	8,200
		Eng - Other		1,900
		Construction		62,500
		Contingency		5,500
		Other		7,500
TOTAL	\$100,000	TOTAL		\$100,000
REPAYMENT	Rate	2.00%	Est. Annual Payment	\$5,085
	Term	1 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Haworth, Meyer, & Boleyn (HMB)		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Jan-19		
	Construction Start	Apr-19		
	Construction Stop	Oct-19		
DEBT PER CUSTOMER	Existing	\$1,376		
	Proposed	\$1,180		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES		Users	Avg. Bill	
	Current	617	\$60.13 (for 4,000 gallons)	
	Additional	0	\$60.13 (for 4,000 gallons)	
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2015	58,890	69,660	(10,770)	0.8
Audited 2016	106,465	69,227	37,238	1.5
Audited 2017	116,229	69,659	46,570	1.7
Projected 2018	112,697	69,662	43,035	1.6
Projected 2019	109,094	74,745	34,349	1.5
Projected 2020	105,419	69,664	35,755	1.5
Projected 2021	101,671	69,661	32,010	1.5
Projected 2022	97,848	69,660	28,188	1.4

Reviewer: Ashley Adams
 Date: December 11, 2018
 Loan Number: A19-040

**KENTUCKY INFRASTRUCTURE AUTHORITY
 WASTEWATER REVOLVING LOAN FUND (FUND A)
 WESTERN MASON SANITATION DISTRICT, MASON COUNTY
 PROJECT REVIEW
 SX21161006**

I. PROJECT DESCRIPTION

The Western Mason Sanitation District is requesting a Fund A loan in the amount of \$100,000 for the Pinewood Subdivision Sewer Project. The primary objective of this project is the elimination of a failing package treatment plant. Because KIA has prioritized projects of this nature in the 2019 Clean Water State Revolving Fund Intended Use Plan for special principal forgiveness consideration, 95% of this loan will be forgiven.

This project will extend an 8" PVC gravity sewer line approximately 566 linear feet in order to eliminate an outdated and aged sewer package treatment plant (PTP) currently serving the Pinewood Subdivision. The current PTP, which is over 30 years old, could fail at any time causing service loss to 75 households in the subdivision. The PTP was issued a Notice of Violation on August 30, 2016. Flow will be directed to the City of Maysville which currently treats all waste under service agreement with the Western Mason Sanitation District. The Sanitation District will retain all customer revenue as a result of the project.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 5,000
Engineering Fees - Design	7,500
Engineering Fees - Construction	1,900
Engineering Fees - Inspection	8,200
Engineering Fees - Other	1,900
Construction	62,500
Contingency	5,500
Other	7,500
Total	\$ 100,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 100,000	100%
Total	\$ 100,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$	100,000
Less: Principal Forgiveness		95,000
Amortized Loan Amount	\$	5,000
Interest Rate		2.00%
Loan Term (Years)		1
Estimated Annual Debt Service	\$	5,075
Administrative Fee (0.20%)		10
Total Estimated Annual Debt Service	\$	5,085

V. PROJECT SCHEDULE

Bid Opening	January 2019
Construction Start	April 2019
Construction Stop	October 2019

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

	<u>Current</u>
Residential	614
Commercial	3
Industrial	0
Total	617

B) Rates

	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	01/01/16	03/01/15
Minimum (2,000 gallons)	\$41.31	\$39.41
Over 2,000 gallons	9.41	9.00
Cost for 4,000 gallons	\$60.13	\$57.41
Increase %	4.7%	
Affordability Index (Rate/MHI)	1.6%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility’s service area population was 203 with a Median Household Income (MHI) of \$46,389. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2% interest rate because the project will address an Agreed Order.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	347		17,765		June 2005	7.3%
1990	213	-38.6%	16,666	-6.2%	June 2010	11.3%
2000	190	-10.8%	16,800	0.8%	June 2015	6.2%
2010	154	-18.9%	17,490	4.1%	June 2018	6.5%
Current	155	0.6%	17,229	-1.5%		
Cumulative %		-55.3%		-3.0%		

VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - This project does not qualify for Green Project Reserve (GPR) funding.
- 2) Additional Subsidization – This project qualifies for additional subsidization. Principal forgiveness of 95% of the assistance amount, not to exceed \$95,000 will be credited to the loan balance upon release of liens on all contracts and disbursement of the final draw request by KIA to the borrower.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended December 30, 2015 through December 30, 2017. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Revenues increased 16% from \$252,000 in 2015 to \$293,000 in 2017 largely due to a rate increase plan initiated by the District from information gathered in a 2015 rate study. All increases have been implemented at this time. Expenses decreased 8% from \$193,000 in 2015 to \$177,000 in 2017.

The 2017 balance sheet reflects a current ratio of 0.8, a debt to equity ratio of 0.3, 23.1 days sales in accounts receivable, and 2.2 months operating expense in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will remain flat as all anticipated rate increases are already in place.
- 2) Expenses will increase 2% yearly for inflation.
- 3) Debt service coverage is 1.4 in 2019 when principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund A loan.

REPLACEMENT RESERVE

There will be no replacement reserve for this loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
KIA Loan B05-06	\$ 414,479	2038
KIA Loan A05-05	434,394	2037
Total	\$ 848,873	

XI. CONTACTS

Legal Applicant	
Entity Name	Western Mason Sanitation District
Authorized Official	Maude Teegarden (Chairman)
County	Mason
Email	maudetee@windstream.net
Phone	606-782-2312
Address	PO Box 126 Germantown, KY 41044

Applicant Contact	
Name	Kevin Cornette
Organization	Western Mason Sanitation District
Email	revkev510@windstream.net
Phone	606-584-5805
Address	PO Box 126 Germantown, KY 41044

Project Administrator	
Name	Cindy Ring
Organization	BTADD
Email	cring@btadd.com
Phone	606-564-6894
Address	201 Government St. Maysville, KY 41056
Consulting Engineer	
PE Name	Jeff Reynolds
Firm Name	Haworth, Meyer, & Boleyn (HMB)
Email	jdreynolds@hmbpe.com
Phone	502-695-9800
Address	3 HMB Circle Frankfort, KY 40601

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**WESTERN MASON SANITATION DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)**

	<u>Audited</u> <u>2015</u>	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Projected</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>
Balance Sheet								
Assets								
Current Assets	43,680	34,382	52,643	61,280	68,150	75,301	81,703	87,340
Other Assets	3,778,070	3,718,424	3,631,413	3,547,860	3,557,358	3,462,981	3,365,608	3,265,178
Total	3,821,750	3,752,806	3,684,056	3,609,140	3,625,508	3,538,282	3,447,311	3,352,518
Liabilities & Equity								
Current Liabilities	68,847	68,758	65,988	66,649	67,330	68,010	68,699	69,388
Long Term Liabilities	910,982	848,873	786,196	722,947	664,117	599,707	534,708	469,120
Total Liabilities	979,829	917,631	852,184	789,596	731,447	667,717	603,407	538,508
Net Assets	2,841,921	2,835,175	2,831,872	2,819,544	2,894,061	2,870,565	2,843,904	2,814,010
Cash Flow								
Revenues	251,764	277,046	292,798	292,798	292,798	292,798	292,798	292,798
Operating Expenses	192,883	170,588	176,596	180,128	183,731	187,406	191,154	194,977
Other Income	9	7	27	27	27	27	27	27
Cash Flow Before Debt Service	58,890	106,465	116,229	112,697	109,094	105,419	101,671	97,848
Debt Service								
Existing Debt Service	69,660	69,227	69,659	69,662	69,660	69,664	69,661	69,660
Proposed KIA Loan	0	0	0	0	5,085	0	0	0
Total Debt Service	69,660	69,227	69,659	69,662	74,745	69,664	69,661	69,660
Cash Flow After Debt Service	(10,770)	37,238	46,570	43,035	34,349	35,755	32,010	28,188
Ratios								
Current Ratio	0.6	0.5	0.8	0.9	1.0	1.1	1.2	1.3
Debt to Equity	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Days Sales in Accounts Receivable	25.5	23.9	23.0	23.1	23.1	23.1	23.1	23.1
Months Operating Expenses in Unrestricted Cash	1.5	1.0	2.2	2.7	3.1	3.5	3.8	4.1
Debt Coverage Ratio	0.8	1.5	1.7	1.6	1.5	1.5	1.5	1.4

EXECUTIVE SUMMARY		Reviewer	Ashley Adams	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 11, 2018	
FUND B, INFRASTRUCTURE		KIA Loan Number	B19-006	
REVOLVING LOAN FUND		WRIS Number	SX21227082	
BORROWER		WARREN COUNTY WATER DISTRICT WARREN COUNTY		
BRIEF DESCRIPTION				
Installation of approximately 34,500 linear feet of cured-in-place gravity sewer line with sizes ranging from 8" to 24". This will replace existing line that was installed in the 1960s that is starting to experience failures.				
PROJECT FINANCING		PROJECT BUDGET		
Fund B Loan	\$2,000,000	Administrative Expenses	RD Fee %	Actual %
USDA - RD	645,000	Legal Expenses		
Local Funds	411,000	Land, Easements		
		Eng - Design / Const	7.3%	4.4%
		Eng - Insp	4.2%	2.9%
		Construction		
		Contingency		
		Other		
TOTAL	\$3,056,000	TOTAL		\$3,056,000
REPAYMENT	Rate	2.00%	Est. Annual Payment	\$125,822
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Warren County Water District		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Feb-19		
	Construction Start	Mar-19		
	Construction Stop	Sep-19		
DEBT PER CUSTOMER	Existing	\$261		
	Proposed	\$340		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	36,515	\$20.87	(for 4,000 gallons)
	Additional	0	\$20.87	(for 4,000 gallons)
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2015	4,483,610	904,312	3,579,298	5.0
Audited 2016	4,503,577	866,030	3,637,547	5.2
Audited 2017	4,754,283	942,531	3,811,752	5.0
Projected 2018	4,688,605	946,803	3,741,802	5.0
Projected 2019	4,616,933	887,216	3,729,717	5.2
Projected 2020	4,978,551	965,513	4,013,038	5.2
Projected 2021	4,894,405	1,157,178	3,737,227	4.2
Projected 2022	4,817,294	1,152,701	3,664,593	4.2

Reviewer: Ashley Adams
 Date: December 11, 2018
 Loan Number: B19-006

**KENTUCKY INFRASTRUCTURE AUTHORITY
 INFRASTRUCTURE REVOLVING LOAN FUND (FUND B)
 WARREN COUNTY WATER DISTRICT, WARREN COUNTY
 PROJECT REVIEW
 SX21227082**

I. PROJECT DESCRIPTION

The Warren County Water District is requesting a Fund B Loan in the amount of \$2,000,000 for the Plum Springs Area Sewer Rehab and Replacement Project. The project will replace approximately 34,500 linear feet of cured-in-place gravity sewer line. Line sizes will range from 8” to 24”. The project will replace lines that have been in service since the 1960s that are starting to experience failures.

Warren County Water District provides sewer service to citizens in Warren County and water service to both the County and surrounding area. The District buys all of its water from Bowling Green Municipal Utilities (BGMU) and sends all sewer flow back to BGMU for treatment. The District only owns the sewer collection system, they do not have any sewer treatment operations. On March 17, 2003, the District entered into a 41 year service agreement with BGMU. All rate adjustments are approved by BGMU, the District, and Kentucky Public Service Commission.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 20,000
Legal Expenses	11,600
Land, Easements	10,000
Engineering Fees - Design	100,000
Engineering Fees - Construction	21,000
Engineering Fees - Inspection	80,000
Construction	2,494,000
Contingency	249,400
Other	70,000
Total	\$ 3,056,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund B Loan	\$ 2,000,000	65%
USDA - RD	645,000	21%
Local Funds	411,000	13%
Total	\$ 3,056,000	100%

IV. KIA DEBT SERVICE

Amortized Loan Amount	\$ 2,000,000
Interest Rate	2.00%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 121,822
Administrative Fee (0.20%)	4,000
Total Estimated Annual Debt Service	\$ 125,822

V. PROJECT SCHEDULE

Bid Opening	February 2019
Construction Start	March 2019
Construction Stop	September 2019

VI. RATE STRUCTURE

A. Customers

	<u>Current</u>
Residential	6,465
Commercial	601
Industrial	
Total	7,066

B. Rates

Sewer Rates	Proposed	Current *	Prior
Date of Last Rate Increase		01/01/17	10/17/13
Minimum (2,000 gallons)	\$11.27	\$10.78	\$11.86
Next 6,000 Gallons (per 1,000)	4.80	4.59	5.13
Cost for 4,000 gallons	\$20.87	\$19.96	\$22.12
Increase %	4.6%	-9.8%	
Affordability Index (Rate/MHI)	0.4%	0.4%	0.4%

* Sewer rates declined in 2017 due to a lower wholesale pass-through adjustment.

Water Rates	Current	Prior
Date of Last Rate Increase	01/01/17	10/17/13
Minimum (2,000 gallons)	\$11.86	\$11.16
Next 6,000 Gallons (per 1,000)	3.76	3.41
Cost for 4,000 gallons	\$19.38	\$17.98
Increase %	7.8%	
Affordability Index (Rate/MHI)	0.4%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 15,078 with a Median Household Income (MHI) of \$62,104. The MHI for the project area is \$41,325. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2% interest rate based on the project area MHI.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	40,450		71,828		June 2005	5.6%
1990	40,641	0.5%	76,673	6.7%	June 2010	9.3%
2000	49,296	21.3%	92,522	20.7%	June 2015	5.1%
2010	58,067	17.8%	113,792	23.0%	June 2018	4.4%
Current	62,824	8.2%	121,066	6.4%		
Cumulative %		55.3%		68.5%		

VIII. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended December 31, 2015 through December 31, 2017. No adjustments were made to operating expenses for pension liability as the District participates in the National Rural Electric Cooperative Association Retirement Security Plan. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented

HISTORY

Combined water and sewer revenues increased 10% from \$13.4 million in 2015 to \$14.8 million in 2017 due to rate adjustments as well as continued growth in the County. Sewer revenues contribute an average of 28% or \$3.9 million to total revenue while water revenues contribute 72% or \$10.1 million. Operating expenses for water and sewer operations combined increased 13% from \$9.3 million to \$10.5 million during the same time period. Sewer expenses average 29% of total expenses or \$2.9

million annually while water expenses average 71% or \$6.9 million annually excluding depreciation. Debt service coverage for total operations was 5.0, 5.2, and 5.0 from 2015 to 2017. In 2016 the District refinanced their Rural Water Series 2006 bonds with Series 2016B which caused an increase in recorded debt service that was factored out of this analysis.

The 2017 balance sheet reflects a current ratio of 4.5, a debt to equity ratio of 0.2, 26.3 days sales in accounts receivable, and 8.3 months operating expenses in unrestricted cash. The District changed auditors in 2017 which resulted in accounting changes to restricted and unrestricted assets and the corresponding shifts in financial indicators from prior years.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Combined revenues will increase 1% annually for growth.
- 2) There is a proposed rate increase for sewer expected to increase revenues over 11% reflected in 2020 forward. The majority of the increase will impact commercial customers via a restructuring of rates to avoid taking losses on high volume customers incurred after wholesale rate changes by BGMU starting in 2011.
- 3) Expenses will increase 2% annually for inflation.
- 4) Debt service for KIA Loans B19-006, C19-002, and the Rural Development loan affiliated with B19-006 have been included in the forecast.
- 5) Debt service coverage is 5.4 in 2021 when full principal and interest repayments begin for both loan B19-006 and C19-002.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund B loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$100,000 total) of the final amount borrowed (prior to principal forgiveness, if any) to be funded annually (\$5,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

IX. DEBT OBLIGATIONS

	Outstanding	Maturity
USDA Bond 1993	\$ 489,000	2033
USDA Bond 2004A	965,000	2025
USDA Bond 2005A	1,069,000	2045
KIA Loan (A97-04)	68,496	2018
KIA Loan (A98-02)	17,673	2018
KIA Loan (C11-02)	679,003	2033
KIA Loan (C15-003)	1,049,576	2036
Rural Water Bond 2012B	1,595,000	2039
Rural Water Bond 2013B	1,465,000	2028
Rural Water Bond 2016B	2,175,000	2030
Total	\$ 9,572,748	

X. CONTACTS

Legal Applicant	
Entity Name	Warren County Water District
Authorized Official	John M. Dix (General Manager)
County	Warren
Email	johnd@warrenwater.com
Phone	270-842-0052
Address	PO Box 10180 Bowling Green, KY 42102-4780

Project Administrator/ Consulting Engineer	
Name	Ryan Leisey
Organization	Warren County Water District
Email	ryanl@warrenwater.com
Phone	270-842-0052
Address	PO Box 10180 Bowling Green, KY 42102-4780

XI. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**WARREN COUNTY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)**

	<u>Audited</u> <u>2015</u>	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Projected</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>
Balance Sheet								
Assets								
Current Assets	4,220,035	5,237,193	9,900,341	10,284,877	10,668,349	11,111,453	11,495,875	11,873,135
Other Assets	120,484,075	125,882,301	127,663,624	127,600,773	131,175,285	129,253,786	126,094,058	122,868,958
Total	<u>124,704,110</u>	<u>131,119,494</u>	<u>137,563,965</u>	<u>137,885,650</u>	<u>141,843,634</u>	<u>140,365,239</u>	<u>137,589,933</u>	<u>134,742,093</u>
Liabilities & Equity								
Current Liabilities	11,752,618	10,122,217	2,192,434	2,134,271	2,181,664	2,205,331	2,233,872	2,262,672
Long Term Liabilities	10,334,870	10,905,485	17,572,768	17,014,808	20,067,955	20,466,135	19,849,774	19,218,913
Total Liabilities	<u>22,087,488</u>	<u>21,027,702</u>	<u>19,765,202</u>	<u>19,149,079</u>	<u>22,249,619</u>	<u>22,671,466</u>	<u>22,083,646</u>	<u>21,481,585</u>
Net Assets	<u>102,616,622</u>	<u>110,091,792</u>	<u>117,798,763</u>	<u>118,736,571</u>	<u>119,594,015</u>	<u>117,693,773</u>	<u>115,506,287</u>	<u>113,260,508</u>
Cash Flow								
Revenues	13,423,376	13,862,141	14,825,629	14,969,520	15,114,849	15,694,502	15,842,752	15,992,485
Operating Expenses	9,253,826	9,723,069	10,478,441	10,688,010	10,905,011	11,123,046	11,355,442	11,582,286
Other Income	314,060	364,505	407,095	407,095	407,095	407,095	407,095	407,095
Cash Flow Before Debt Service	<u>4,483,610</u>	<u>4,503,577</u>	<u>4,754,283</u>	<u>4,688,605</u>	<u>4,616,933</u>	<u>4,978,551</u>	<u>4,894,405</u>	<u>4,817,294</u>
Debt Service								
Existing Debt Service	904,312	866,030	942,531	946,803	887,216	902,602	893,648	889,171
Proposed KIA Loans (B19-006, C19-002)	0	0	0	0	0	62,911	263,530	263,530
Total Debt Service	<u>904,312</u>	<u>866,030</u>	<u>942,531</u>	<u>946,803</u>	<u>887,216</u>	<u>965,513</u>	<u>1,157,178</u>	<u>1,152,701</u>
Cash Flow After Debt Service	<u>3,579,298</u>	<u>3,637,547</u>	<u>3,811,752</u>	<u>3,741,802</u>	<u>3,729,717</u>	<u>4,013,038</u>	<u>3,737,227</u>	<u>3,664,593</u>
Ratios								
Current Ratio	0.4	0.5	4.5	4.8	4.9	5.0	5.1	5.2
Debt to Equity	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Days Sales in Accounts Receivable	21.0	30.1	26.3	26.3	26.3	26.3	26.3	26.3
Months Operating Expenses in Unrestricted Cash	3.6	4.2	8.3	8.6	8.8	9.1	9.3	9.5
Debt Coverage Ratio	5.0	5.2	5.0	5.0	5.2	5.2	4.2	4.2

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND C, GOVERNMENTAL AGENCIES FUND REVOLVING LOAN FUND		Reviewer Date KIA Loan Number WRIS Number	Ashley Adams December 11, 2018 C19-002 WX21227053	
BORROWER		WARREN COUNTY WATER DISTRICT WARREN COUNTY		
BRIEF DESCRIPTION				
This project will replace an existing 100,000 gallon storage tank with a new 250,000 gallon elevated storage tank, install a new pump station, add approximately 4,300 linear feet (LF) of 8" water main, and install a new pressure reducing valve. In addition, another 7,600 LF of 2" and 4" waterline will be replaced. This project will improve service by increasing pressures and improving service reliability as well as enhance fire protection.				
PROJECT FINANCING		PROJECT BUDGET		
Fund C Loan	\$2,000,000	Administrative Expenses	\$10,000	
Local Funds	176,573	Legal Expenses	7,000	
		Land, Easements	15,000	
		Eng - Design / Const	7.7% 4.8% 94,763	
		Eng - Insp	4.6% 2.0% 39,020	
		Construction	1,816,073	
		Contingency	161,927	
		Other	32,790	
TOTAL	\$2,176,573	TOTAL	\$2,176,573	
REPAYMENT	Rate Term	3.00% 20 Years	Est. Annual Payment 1st Payment 6 Mo. after first draw \$137,708	
PROFESSIONAL SERVICES	Engineer Bond Counsel	Warren County Water District Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening Construction Start Construction Stop	Feb-19 Apr-19 Mar-20		
DEBT PER CUSTOMER	Existing Proposed	\$261 \$340		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES	Current Additional	<u>Users</u> 36,515 0	<u>Avg. Bill</u> \$19.38 (for 4,000 gallons) \$19.38 (for 4,000 gallons)	
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2015	4,483,610	904,312	3,579,298	5.0
Audited 2016	4,503,577	866,030	3,637,547	5.2
Audited 2017	4,754,283	942,531	3,811,752	5.0
Projected 2018	4,688,605	946,803	3,741,802	5.0
Projected 2019	4,616,933	887,216	3,729,717	5.2
Projected 2020	4,978,551	965,513	4,013,038	5.2
Projected 2021	4,894,405	1,157,178	3,737,227	4.2
Projected 2022	4,817,294	1,152,701	3,664,593	4.2

Reviewer: Ashley Adams
Date: December 11, 2018
Loan Number: C19-002

**KENTUCKY INFRASTRUCTURE AUTHORITY
GOVERNMENTAL AGENCIES LOAN FUND (FUND C)
WARREN COUNTY WATER DISTRICT, WARREN COUNTY
PROJECT REVIEW
WX21227053**

I. PROJECT DESCRIPTION

The Warren County Water District is requesting a Fund C loan in the amount of \$2,000,000 for the Morgantown Road Area Improvements project. This project will replace an existing 100,000 gallon storage tank with a new 250,000 gallon elevated storage tank, install a new pump station, add approximately 4,300 linear feet (LF) of 8" water main, and install a new pressure reducing valve. In addition, another 7,600 LF of 2" and 4" waterline will be replaced. This project will improve service by increasing pressures and improving service reliability as well as enhance fire protection.

Warren County Water District provides sewer service to citizens in Warren County and water service to both the County and surrounding area. The District buys all of its water from Bowling Green Municipal Utilities (BGMU) and sends all sewer flow back to BGMU for treatment. The District only owns the sewer collection system, they do not have any sewer treatment operations. On March 17, 2003, the District entered into a 41 year service agreement with BGMU. All rate adjustments are approved by BGMU, the District, and Kentucky Public Service Commission.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 10,000
Legal Expenses	7,000
Land, Easements	15,000
Engineering Fees - Design	84,763
Engineering Fees - Construction	10,000
Engineering Fees - Inspection	39,020
Construction	1,816,073
Contingency	161,927
Other	32,790
Total	\$ 2,176,573

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund C Loan	\$ 2,000,000	92%
Local Funds	176,573	8%
Total	\$ 2,176,573	100%

IV. KIA DEBT SERVICE

Amortized Loan Amount	\$ 2,000,000
Interest Rate	3.00%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 133,708
Administrative Fee (0.20%)	4,000
Total Estimated Annual Debt Service	\$ 137,708

V. PROJECT SCHEDULE

Bid Opening	February 2019
Construction Start	April 2019
Construction Stop	March 2020

VI. RATE STRUCTURE

A. Customers

	<u>Current</u>
Residential	27,190
Commercial	2,259
Industrial	
Total	29,449

B. Rates

Water Rates	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	01/01/17	10/17/13
Minimum (2,000 gallons)	\$11.86	\$11.16
Next 6,000 Gallons (per 1,000)	3.76	3.41
Cost for 4,000 gallons	\$19.38	\$17.98
Increase %	7.8%	
Affordability Index (Rate/MHI)	0.4%	

Sewer Rates	Proposed	Current *	Prior
Date of Last Rate Increase		01/01/17	10/17/13
Minimum (2,000 gallons)	\$11.27	\$10.78	\$11.86
Next 6,000 Gallons (per 1,000)	4.80	4.59	5.13
Cost for 4,000 gallons	\$20.87	\$19.96	\$22.12
Increase %	4.6%	-9.8%	
Affordability Index (Rate/MHI)	0.4%	0.4%	0.4%

* Sewer rates declined in 2017 due to a lower wholesale pass-through adjustment.

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 61,634 with a Median Household Income (MHI) of \$56,349. The median household income for the Commonwealth is \$44,811. The project will qualify for the standard 3% interest rate for Fund C.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	40,450		71,828		June 2005	5.6%
1990	40,641	0.5%	76,673	6.7%	June 2010	9.3%
2000	49,296	21.3%	92,522	20.7%	June 2015	5.1%
2010	58,067	17.8%	113,792	23.0%	June 2018	4.4%
Current	62,824	8.2%	121,066	6.4%		
Cumulative %		55.3%		68.5%		

VIII. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended December 31, 2015 through December 31, 2017. No adjustments were made to operating expenses for pension liability as the District participates in the National Rural Electric Cooperative Association Retirement Security Plan. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented

HISTORY

Combined water and sewer revenues increased 10% from \$13.4 million in 2015 to \$14.8 million in 2017 due to rate adjustments as well as continued growth in the County. Sewer revenues contribute an average of 28% or \$3.9 million to total revenue while water revenues contribute 72% or \$10.1 million. Operating expenses for water and sewer operations combined increased 13% from \$9.3 million to \$10.5 million

during the same time period. Sewer expenses average 29% of total expenses or \$2.9 million annually while water expenses average 71% or \$6.9 million annually excluding depreciation. Debt service coverage for total operations was 5.0, 5.2, and 5.0 from 2015 to 2017. In 2016 the District refinanced their Rural Water Series 2006 bonds with Series 2016B which caused an increase in recorded debt service that was factored out of this analysis.

The 2017 balance sheet reflects a current ratio of 4.5, a debt to equity ratio of 0.2, 26.3 days sales in accounts receivable, and 8.3 months operating expenses in unrestricted cash. The District changed auditors in 2017 which resulted in accounting changes to restricted and unrestricted assets and the corresponding shifts in financial indicators from prior years.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Combined revenues will increase 1% annually for growth.
- 2) There is a proposed rate increase for sewer expected to increase revenues over 11% reflected in 2020 forward. The majority of the increase will impact commercial customers via a restructuring of rates to avoid taking losses on high volume customers incurred after wholesale rate changes by BGMU starting in 2011.
- 3) Expenses will increase 2% annually for inflation.
- 4) Debt service for KIA Loans B19-006, C19-002, and the Rural Development loan affiliated with B19-006 have been included in the forecast.
- 5) Debt service coverage is 5.4 in 2021 when full principal and interest repayments begin for both loan B19-006 and C19-002.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund C loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$100,000 total) of the final amount borrowed (prior to principal forgiveness, if any) to be funded annually (\$5,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

IX. DEBT OBLIGATIONS

	Outstanding	Maturity
USDA Bond 1993	\$ 489,000	2033
USDA Bond 2004A	965,000	2025
USDA Bond 2005A	1,069,000	2045
KIA Loan (A97-04)	68,496	2018
KIA Loan (A98-02)	17,673	2018
KIA Loan (C11-02)	679,003	2033
KIA Loan (C15-003)	1,049,576	2036
Rural Water Bond 2012B	1,595,000	2039
Rural Water Bond 2013B	1,465,000	2028
Rural Water Bond 2016B	2,175,000	2030
Total	\$ 9,572,748	

X. CONTACTS

Legal Applicant	
Entity Name	Warren County Water District
Authorized Official	John M. Dix (General Manager)
County	Warren
Email	johnd@warrenwater.com
Phone	270-842-0052
Address	PO Box 10180 Bowling Green, KY 42102-4780

Project Administrator/ Consulting Engineer	
Name	Ryan Leisey
Organization	Warren County Water District
Email	ryanl@warrenwater.com
Phone	270-842-0052
Address	PO Box 10180 Bowling Green, KY 42102-4780

XI. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**WARREN COUNTY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)**

	<u>Audited</u> <u>2015</u>	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Projected</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>
Balance Sheet								
Assets								
Current Assets	4,220,035	5,237,193	9,900,341	10,284,877	10,668,349	11,111,453	11,495,875	11,873,135
Other Assets	120,484,075	125,882,301	127,663,624	127,600,773	131,175,285	129,253,786	126,094,058	122,868,958
Total	<u>124,704,110</u>	<u>131,119,494</u>	<u>137,563,965</u>	<u>137,885,650</u>	<u>141,843,634</u>	<u>140,365,239</u>	<u>137,589,933</u>	<u>134,742,093</u>
Liabilities & Equity								
Current Liabilities	11,752,618	10,122,217	2,192,434	2,134,271	2,181,664	2,205,331	2,233,872	2,262,672
Long Term Liabilities	10,334,870	10,905,485	17,572,768	17,014,808	20,067,955	20,466,135	19,849,774	19,218,913
Total Liabilities	<u>22,087,488</u>	<u>21,027,702</u>	<u>19,765,202</u>	<u>19,149,079</u>	<u>22,249,619</u>	<u>22,671,466</u>	<u>22,083,646</u>	<u>21,481,585</u>
Net Assets	<u>102,616,622</u>	<u>110,091,792</u>	<u>117,798,763</u>	<u>118,736,571</u>	<u>119,594,015</u>	<u>117,693,773</u>	<u>115,506,287</u>	<u>113,260,508</u>
Cash Flow								
Revenues	13,423,376	13,862,141	14,825,629	14,969,520	15,114,849	15,694,502	15,842,752	15,992,485
Operating Expenses	9,253,826	9,723,069	10,478,441	10,688,010	10,905,011	11,123,046	11,355,442	11,582,286
Other Income	314,060	364,505	407,095	407,095	407,095	407,095	407,095	407,095
Cash Flow Before Debt Service	<u>4,483,610</u>	<u>4,503,577</u>	<u>4,754,283</u>	<u>4,688,605</u>	<u>4,616,933</u>	<u>4,978,551</u>	<u>4,894,405</u>	<u>4,817,294</u>
Debt Service								
Existing Debt Service	904,312	866,030	942,531	946,803	887,216	902,602	893,648	889,171
Proposed KIA Loans (B19-006, C19-002)	0	0	0	0	0	62,911	263,530	263,530
Total Debt Service	<u>904,312</u>	<u>866,030</u>	<u>942,531</u>	<u>946,803</u>	<u>887,216</u>	<u>965,513</u>	<u>1,157,178</u>	<u>1,152,701</u>
Cash Flow After Debt Service	<u>3,579,298</u>	<u>3,637,547</u>	<u>3,811,752</u>	<u>3,741,802</u>	<u>3,729,717</u>	<u>4,013,038</u>	<u>3,737,227</u>	<u>3,664,593</u>
Ratios								
Current Ratio	0.4	0.5	4.5	4.8	4.9	5.0	5.1	5.2
Debt to Equity	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Days Sales in Accounts Receivable	21.0	30.1	26.3	26.3	26.3	26.3	26.3	26.3
Months Operating Expenses in Unrestricted Cash	3.6	4.2	8.3	8.6	8.8	9.1	9.3	9.5
Debt Coverage Ratio	5.0	5.2	5.0	5.0	5.2	5.2	4.2	4.2

EXECUTIVE SUMMARY		Reviewer	Meili Sun			
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	May 8, 2018			
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number	F18-017			
REVOLVING LOAN FUND		WRIS Number	WX21079015			
BORROWER	CITY OF LANCASTER GARRARD COUNTY					
BRIEF DESCRIPTION						
The project will construct a new 3.0 million gallon per day (MGD), conventional water treatment facility. The new treatment facility, with lagoon system to accept wastewater discharge, will be constructed at a site owned by the City near the existing plant. Expansion at the current site was ruled out due to the age of the current water treatment plant components and unavailability of land to expand the footprint. The City will leave two pumps at the abandoned treatment plant site that will have the ability to pump raw water to the new treatment plant site from the Lancaster Reservoir as a backup source water supply.						
PROJECT FINANCING		PROJECT BUDGET			RD Fee %	Actual %
Fund F Loan	\$4,000,000	Administrative Expenses				\$30,000
RD	6,000,000	Legal Expenses				20,000
ARC	500,000	Planning				20,000
HB 265 State Grant	500,000	Eng - Design / Const	6.4%	5.8%		569,000
		Eng - Insp	4.2%	3.8%		370,000
		Eng - Other				85,000
		Construction				8,866,000
		Contingency				887,000
		Other				153,000
TOTAL	<u>\$11,000,000</u>	TOTAL				<u>\$11,000,000</u>
REPAYMENT	Rate	0.50%	Est. Annual Payment		\$115,312	
	Term	30 Years	1st Payment	6 Mo. after first draw		
PROFESSIONAL SERVICES	Engineer	Kentucky Engineering Group				
	Bond Counsel	Dinsmore & Shohl, LLP				
PROJECT SCHEDULE	Bid Opening	Sep-18				
	Construction Start	Dec-18				
	Construction Stop	Jul-20				
DEBT PER CUSTOMER	Existing	\$2,552				
	Proposed	\$6,719				
OTHER DEBT	See Attached					
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>			
	Current	1,711	\$35.59 (for 4,000 gallons)			
	Additional	0	\$35.59 (for 4,000 gallons)			
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.					
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio		
Audited 2015	431,570	366,484	65,086	1.2		
Audited 2016	351,970	292,252	59,718	1.2		
Audited 2017	507,930	266,522	241,408	1.9		
Projected 2018	431,996	265,499	166,497	1.6		
Projected 2019	523,668	277,086	246,582	1.9		
Projected 2020	534,459	289,386	245,073	1.8		
Projected 2021	628,303	532,846	95,457	1.2		
Projected 2022	641,697	591,027	50,670	1.1		

Reviewer: Meili Sun
Date: May 8, 2018
Loan Number: F18-017

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND F)
CITY OF LANCASTER, GARRARD COUNTY
PROJECT REVIEW
WX21079015**

I. PROJECT DESCRIPTION

The City of Lancaster is requesting \$4,000,000 in loan funding to construct a new 3.0 million gallon per day (MGD), conventional water treatment facility. The current 2.1 MGD plant was constructed in 1951 with the last major improvement occurring in 1994. Many of the plant components have exceeded their life spans and are in need of replacement. In addition, the City currently has no means for sludge holding after a backwash or basin cleaning and has received Notice of Violation (NOV) for high total suspended solids in their discharge to a nearby stream. To address these issues, a new treatment facility, with lagoon system to accept wastewater discharge, will be constructed at a nearby site already owned by the City. Other improvements will include improved coagulation and filtration, maximizing efficiency of the carbon feed system and points of chlorination, and a larger diameter intake pipe and screen on the Kentucky River. Expansion at the current site was ruled out due to the age of the current water treatment plant components and unavailability of land to expand the footprint. The City will leave two pumps at the abandoned treatment plant site that will have the ability to pump raw water to the new treatment plant site from the Lancaster Reservoir as a backup source water supply.

Lancaster Water Works is a regional facility, selling to the Crab Orchard Water Works and the Garrard County Water Association.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 30,000
Legal Expenses	20,000
Planning	20,000
Engineering Fees - Design / Const	569,000
Engineering Fees - Inspection	370,000
Engineering Fees – Other	85,000
Construction	8,866,000
Contingency	887,000
Other	153,000
Total	\$ 11,000,000

III. PROJECT FUNDING

	Amount	%
Fund A Loan	\$ 4,000,000	36%
RD (\$1.5 million grant & \$4.5 million loan)	6,000,000	54%
ARC Grant	500,000	5%
HB 265 State Grant	500,000	5%
Total	\$ 11,000,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 4,000,000
Principal Forgiveness	1,000,000
Amortized Loan Amount	3,000,000
Interest Rate	0.50%
Loan Term (Years)	30
Estimated Annual Debt Service	\$ 107,812
Administrative Fee (0.25%)	7,500
Total Estimated Annual Debt Service	\$ 115,312

V. PROJECT SCHEDULE

Bid Opening	September, 2018
Construction Start	December, 2018
Construction Stop	July, 2020

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	
Residential	1,495
Commercial	208
Industrial	8
Total	1,711

B) Rates

<u>Water</u>	Current	Prior
Date of Last Rate Increase	04/01/18	04/01/17
Minimum 1,000 Gallons	\$ 13.30	\$ 13.14
Next 3,000 Gallons	7.43	6.63
Cost for 4,000 gallons	\$ 35.59	\$ 33.03
Increase %	7.8%	
Affordability Index (Rate/MHI)	1.4%	

Sewer	Current	Prior
Date of Last Rate Increase	04/01/18	04/01/17
Per 1,000 Gallons	\$ 7.83	\$ 7.52
Cost for 4,000 gallons	\$ 31.32	\$ 30.08
Increase %	4.1%	
Affordability Index (Rate/MHI)	1.2%	

Wholesale Water

Date	1/10/18	7/10/18	7/10/19	07/10/20	07/10/21
Per 1,000 Gallons	\$2.10	\$2.15	\$2.20	\$ 2.25	\$ 2.49
Increase %		2.4%	2.3%	2.3%	10.7%

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 3,943 with a Median Household Income (MHI) of \$31,032. The median household income for the Commonwealth is \$43,740. The project will qualify for a 0.50% interest rate as its MHI is below 80% of the state MHI.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	3,365		10,853		June 2005	6.2%
1990	3,421	1.7%	11,579	6.7%	June 2010	11.1%
2000	3,734	9.1%	14,792	27.7%	June 2015	5.2%
2010	3,442	-7.8%	16,912	14.3%	June 2017	5.4%
Current	3,831	11.3%	17,051	0.8%		
Cumulative %		13.8%		57.1%		

VIII. 2017 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - The Drinking Water capitalization grant does not contain a "green" requirement.
- 2) Additional Subsidization – This project qualifies for additional subsidization in the amount of \$1,000,000.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements combining both water and sewer operations for the years ended June 30, 2015 through June 30, 2017. An accounting error applying \$117,082 grant income to water revenues has been deducted from operating revenues. The non-cash impact of GASB 68, Accounting and Financial Reporting for Pensions, has also been removed from fiscal year 2015, 2016, and 2017 operating expenses.

This project is a joint financial effort of multiple funding sources. Other funding sources include commitments of a \$1.5 million RD grant, a \$4.5 million RD loan, and a \$0.5 million HB265 state grant. The City has applied for an ARC grant in the amount of \$0.5 million and is anticipating the award in the near future.

HISTORY

Combined water and sewer revenues went up 10.6% from \$1.85 million in 2015 to \$2.05 million in 2017 due to CPI adjustments and volume increase. Operating expenses increased 8.4% from \$1.43 million in 2015 to \$1.55 million in 2017 due to higher contractual expenses and general inflation. The debt coverage ratio was 1.2, 1.2, and 1.9 for 2015, 2016, and 2017 respectively.

The balance sheet reflects a current ratio of 5.7, debt to equity ratio of 0.8, 57.2 days sales in accounts receivable, and 2.4 months of operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Total revenues reflect all previously approved rate increases. Retail water revenues will increase approximately 6% equivalent to \$40,000 by April 1, 2019.
- 2) Wholesale water will go up annually based on the rate schedule in the water purchase agreements with the Garrard County Water Association and the City of Crab Orchard.
- 3) Expenses will increase 2% annually for general inflation.
- 4) The City will receive a grant in the amount of \$500,000 from ARC in addition to this loan, the RD grant and loan, as well as the HB265 state grant.
- 5) After 2019, the City will continue to automatically adjust retail water and sewer rates based on the Consumer Price Index.
- 6) Debt service coverage is 1.1 in 2022 when full year principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund F loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$200,000 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$10,000) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	Outstanding	Maturity
Water and Sewer Revenue Bonds Series 1988	\$ 638,000	2028
Water and Sewer Revenue Bonds Series 2000	467,500	2040
Water and Sewer Revenue Bonds Series 2005A	218,100	2045
Water and Sewer Revenue Bonds Series 2005B	147,300	2045
Water and Sewer Revenue Bonds Series 2009	897,000	2048
Water and Sewer Revenue Bonds Series 2010	1,505,500	2050
KIA Loan B08-002	288,900	2028
KIA Loan B16-013 i/a/o \$406,868		TBD
RD Bonds i/a/o \$4.5 million		TBD
Total	\$4,162,300	

XI. CONTACTS

Legal Applicant	
Name	City of Lancaster
Address	308 W Maple Ave, Suite 1 Lancaster, KY 40444
County	Garrard
Authorized Official	Chris Davis, Mayor
Phone	(859) 792-2241
Email	cdavis@cityoflancasterky.com

Project Contact - Applicant	
Name	Debbie Carrier, City Clerk
Representing	City of Lancaster
Address	308 W Maple Ave, Suite 1 Lancaster, KY 40444
Phone	(859) 792-2241
Email	dcarrier@cityoflancasterky.com

Consulting Engineer & Project Administrator

Name	Ryan Carr
Firm	Kentucky Engineering Group
Address	PO Box 1034 Versailles, KY 40383
Phone	(859) 251-4127
Email	rcarr@kyengr.com

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions and one special condition to increase retail water revenues by approximately 6% equivalent to \$40,000 on or before April 1, 2019.

**CITY OF LANCASTER
FINANCIAL SUMMARY (JUNE YEAR END)**

	<u>Audited 2015</u>	<u>Audited 2016</u>	<u>Audited 2017</u>	<u>Projected 2018</u>	<u>Projected 2019</u>	<u>Projected 2020</u>	<u>Projected 2021</u>	<u>Projected 2022</u>
Balance Sheet								
Assets								
Current Assets	1,469,534	1,479,526	1,838,847	1,865,111	1,933,928	1,989,642	2,043,234	2,060,668
Other Assets	10,459,985	10,258,586	10,183,626	9,730,712	9,692,534	14,676,170	19,540,114	18,868,228
Total	11,929,519	11,738,112	12,022,473	11,595,823	11,626,462	16,665,813	21,583,348	20,928,896
Liabilities & Equity								
Current Liabilities	207,234	323,961	320,621	328,770	337,918	346,166	355,614	366,685
Long Term Liabilities	4,910,312	4,886,005	5,037,302	4,886,399	4,942,244	8,541,663	12,135,534	11,972,234
Total Liabilities	5,117,546	5,209,966	5,357,923	5,215,169	5,280,162	8,887,829	12,491,148	12,338,919
Net Assets	6,811,973	6,528,146	6,664,550	6,380,654	6,346,300	7,777,984	9,092,200	8,589,977
Cash Flow								
Revenues	1,852,941	1,821,842	2,049,621	2,004,602	2,128,824	2,171,779	2,392,154	2,439,011
Operating Expenses	1,425,693	1,474,044	1,545,746	1,576,661	1,609,211	1,641,375	1,767,906	1,801,369
Other Income	4,322	4,172	4,055	4,055	4,055	4,055	4,055	4,055
Cash Flow Before Debt Service	431,570	351,970	507,930	431,996	523,668	534,459	628,303	641,697
Debt Service								
Existing Debt Service	366,484	292,252	266,522	265,499	277,086	289,386	475,190	475,715
Proposed KIA Loan	0	0	0	0	0	0	57,656	115,312
Total Debt Service	366,484	292,252	266,522	265,499	277,086	289,386	532,846	591,027
Cash Flow After Debt Service	65,086	59,718	241,408	166,497	246,582	245,073	95,457	50,670
Ratios								
Current Ratio	7.1	4.6	5.7	5.7	5.7	5.7	5.7	5.6
Debt to Equity	0.8	0.8	0.8	0.8	0.8	1.1	1.4	1.4
Days Sales in Accounts Receivable	34.8	30.9	57.2	57.2	57.2	57.2	57.2	57.2
Months Operating Expenses in Unrestricted Cash	1.4	1.4	2.4	2.6	2.9	3.2	3.3	3.3
Debt Coverage Ratio	1.2	1.2	1.9	1.6	1.9	1.8	1.2	1.1

EXECUTIVE SUMMARY		Reviewer	Jeff Abshire
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 11, 2018
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number	F19-009
REVOLVING LOAN FUND		WRIS Number	WX21115028
BORROWER		CITY OF PAINTSVILLE JOHNSON COUNTY	
BRIEF DESCRIPTION			
This project will address several supply and pressure issues throughout the utility service area. The project components include replacement of existing pump station; replace 100,000 gallon water storage tank with 150,000 tank; connect a service area to a 24 inch transmission main to improve supply; install pressure reduction valves; install continuous booster pump; replace various aged and undersized lines.			
PROJECT FINANCING		PROJECT BUDGET	
Fund F Loan	\$2,010,000	RD Fee %	Actual %
		Administrative Expenses	\$53,000
		Legal Expenses	25,000
		Land, Easements	25,000
		Eng - Design / Const	125,000
		Eng - Insp	77,000
		Eng - Other	40,000
		Construction	1,515,000
		Contingency	150,000
TOTAL	\$2,010,000	TOTAL	\$2,010,000
REPAYMENT	Rate	0.50%	Est. Annual Payment
	Term	30 Years	\$38,630
			1st Payment 6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Bell Engineering	
	Bond Counsel	Dinsmore & Shohl, LLP	
PROJECT SCHEDULE	Bid Opening	Jun-19	
	Construction Start	Aug-19	
	Construction Stop	Aug-20	
DEBT PER CUSTOMER	Existing	\$3,435	
	Proposed	\$3,094	
OTHER DEBT	See Attached		
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Water Bill</u> (4,000 Gallons)
	Current	8,130	\$30.00
	Additional	4	\$30.00
RESIDENTIAL RATES			<u>Avg. Sewer Bill</u> (4,000 Gallons)
			\$32.90
			\$32.90
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.		
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service
			Coverage Ratio
Audited 2015	2,529,238	1,446,061	1,083,177
Audited 2016	2,085,740	1,771,330	314,410
Audited 2017	2,237,129	2,046,426	190,703
Audited 2018	2,805,135	2,010,735	794,400
Projected 2019	2,446,562	1,462,459	984,103
Projected 2020	2,349,397	1,564,181	785,216
Projected 2021	2,243,041	1,601,745	641,296
Projected 2022	2,137,357	1,558,020	579,337

Reviewer: Jeff Abshire
Date: December 11, 2018
Loan Number: F19-009

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER REVOLVING LOAN FUND (FUND F)
CITY OF PAINTSVILLE, JOHNSON COUNTY
PROJECT REVIEW
WX21115028**

I. UTILITY OVERVIEW / PROJECT DESCRIPTION

The Paintsville Utilities Commission, a component unit of the City of Paintsville, provides water (8,100 customers), wastewater (2,600 customers) and natural gas service (1,450 customers) primarily in Johnson and Floyd Counties with very limited service also in Floyd and Magoffin Counties. Emergency supply connections also exist with the Big Sandy and Magoffin County Water Districts, Prestonsburg City's Utilities Commission and Salyersville Water Works. The Commission is a component unit of the City of Paintsville.

The City of Paintsville for the benefit of the Paintsville Utilities Commission is requesting \$2,010,000 for the Water System Improvements project. The project will address supply and pressure issues throughout the utility. Primary project components include: tie in to 24" transmission main, replace aged and undersized lines, replace obsolete pump station, replace 100,000 gallon tank with 150,000 gallon tank, install SCADA, install constant pressure booster pump, and install pressure reducing valves where needed.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 53,000
Legal Expenses	25,000
Land, Easements	25,000
Engineering Fees – Design	100,000
Engineering Fees – Construction	25,000
Engineering Fees – Inspection	77,000
Engineering Fees – Other	40,000
Construction	1,515,000
Contingency	<u>150,000</u>
Total	\$ 2,010,000

III. PROJECT FUNDING

	Amount	%
Fund F Loan	\$ 2,010,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 2,010,000
Less: Principal Forgiveness	1,005,000
Amortized Loan Amount	\$ 1,005,000
Interest Rate	0.50%
Loan Term (Years)	30
Estimated Annual Debt Service	\$36,117
Administrative Fee (0.25%)	2,513
Total Estimated Annual Debt Service	\$38,630

V. PROJECT SCHEDULE

Geotechnical Review for Tank Location	March 2019
Environmental Review	April 2019
Submit Plans and Specifications to DOW	April 2019
Bid Opening	June 2019
Construction Start	August 2019
Construction Stop	August 2020

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

	Current	Proposed	Total
Residential	7,415	4	7,419
Commercial	715	0	715
Total	8,130	4	8,134

B) Rates

Water

	In City		Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	05/01/18	05/01/17	05/01/18	05/01/17
Minimum (2,000 Gallons)	\$15.18	\$13.98	\$22.14	\$20.38
Next 5,000 Gallons		6.82		8.57
Next 3,000 Gallons	7.41		9.31	
Cost for 4,000 gallons	\$30.00	\$27.62	\$40.76	\$37.52
Increase %	8.6%		8.6%	
Affordability Index (Rate/MHI)	1.1%		1.5%	

Sewer	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	05/01/17	05/01/16
Minimum (2,000 Gallons)	\$16.82	\$16.49
Next 3,000 Gallons	8.04	7.88
Cost for 4,000 gallons	\$32.90	\$32.25
Increase %	2.0%	
Affordability Index (Rate/MHI)	1.2%	

The City's water and sewer rate ordinances require annual adjustments for the Consumer Price Index. The City elected to not adjust for CPI in 2017 and 2018 due to large water rate increases. The annual CPI adjustment will be reinstated in 2019.

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 21,797 with a Median Household Income (MHI) of \$31,104. The median household income for the Commonwealth is \$44,811. The project will qualify for a 0.50% interest rate.

Year	Population				Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	3,815		24,432		June 2005	7.2%
1990	4,354	14.1%	23,248	-4.8%	June 2010	12.4%
2000	4,132	-5.1%	23,445	0.8%	June 2015	8.5%
2010	3,459	-16.3%	23,345	-0.4%	June 2018	7.7%
Current	4,246	22.8%	23,280	-0.3%		
Cumulative %		11.3%		-4.7%		

VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES

Additional Subsidization – Principal forgiveness of 50% of the assistance amount, not to exceed \$1,005,000 will be credited to the loan balance upon release of liens on all contracts and disbursement of the final draw request by KIA to the borrower.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements (consolidated water, sewer and natural gas) for the Commission for the years ended June 30, 2015 through 2018. The non-cash impacts of GASB 68, Accounting and Financial Reporting for Pensions, and GASB 75, Accounting and Financial Reporting

for Postemployment Benefits Other Than Pensions have been removed from operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Combined water, sewer and miscellaneous revenues increased 2.6% from \$6.4 million in 2015 to \$6.5 million in 2018 while operating expenses, excluding purchased natural gas, increased 2.4% from \$5.1 million to \$5.2 million. Cash flow before debt service ranged from \$2.1 to \$2.8 million of which natural gas operations contributed an average of about \$500 thousand each year. The debt coverage ratio was 1.7, 1.2, 1.1 and 1.4 in 2015 through 2018, respectively. The City defeased \$670 thousand in debt during fiscal 2018 which reduces 2019 debt service by about \$350 thousand compared to 2018.

The balance sheet reflects a current ratio of 1.8, 46.3 days of sales in accounts receivable, and 4.7 months of operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Water and sewer revenues will increase for existing rate adjustments as well as annual rate adjustments for CPI.
- 2) The natural gas segment's contribution to funds available for debt service will remain flat at \$500 thousand.
- 3) Expenses will increase 2% for inflation and 1% for performance with the primary short term performance driver being incremental benefit costs.
- 4) Debt service coverage is 1.4 in 2021 when principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund A loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$100,000 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$5,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

Description	Outstanding	Maturity
Series 2006 Revenue Bonds	\$ 215,500	2046
Series 2011 Revenue Bonds	12,412,000	2051
Series 2018 Revenue Bonds	3,559,540	TBD
KLC Lease	195,000	2020
KIA A05-04	182,463	2026
KIA A209-34	410,151	2033
KIA B98-02	913,169	2032
KIA F08-10	5,622,585	2035
Citizens National Bank	3,961,117	2020
Citizens National Bank	493,000	2026
First Commonwealth Bank	17,997	2019
Total	\$27,982,522	

XI. CONTACTS

Legal Applicant	
Name	City of Paintsville
Address	P.O. Box 630 Paintsville, KY 41240
County	Johnson
Authorized Official	Bill Mike Runyon
Phone	(606) 789-2600
Email	Mayor.Runyon@cityofpaintsville.net

Project Contact - Applicant	
Name	Bob Pack
Representing	Paintsville Utilities Commission
Address	P.O. Box 630 Paintsville, KY 41240
Phone	(606) 789-2630
Email	bpack@paintsvilleutilities.com

Project Administrator	
Name	Big Sandy Area Development District
Address	110 Resource Court Prestonsburg, KY 41653
Contact	Brandon Montgomery
Phone	(606) 886-2374
Email	Brandon.Montgomery@bigsandy.org

Consulting Engineer	
Name	Michael Lile
Firm	Bell Engineering
Address	2480 Fortune Drive, Suite 350 Lexington, KY 40509
Phone	859-278-5412
Email	mlile@hkbell.com

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

CITY OF PAINTSVILLE
FINANCIAL SUMMARY (JUNE YEAR END)

	Audited	Audited	Audited	Audited	Projected	Projected	Projected	Projected
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Balance Sheet								
Assets								
Current Assets	3,844,813	4,634,595	3,707,785	3,757,683	3,754,739	3,925,882	4,068,541	4,199,208
Other Assets	85,475,792	84,705,347	83,298,931	85,789,586	83,411,343	82,100,027	80,086,575	78,023,556
Total	89,320,605	89,339,942	87,006,716	89,547,269	87,166,082	86,025,909	84,155,116	82,222,764
Liabilities & Equity								
Current Liabilities	1,104,688	1,705,189	1,269,535	2,031,414	1,334,065	1,349,196	1,322,810	1,327,244
Long Term Liabilities	31,573,500	31,188,898	30,074,860	33,183,885	31,348,037	29,980,741	29,057,831	28,131,387
Total Liabilities	32,678,188	32,894,087	31,344,395	35,215,299	32,682,102	31,329,937	30,380,641	29,458,631
Net Assets	56,642,417	56,445,855	55,662,321	54,331,970	54,483,980	54,695,972	53,774,475	52,764,133
Cash Flow								
Revenues	8,519,315	7,453,097	7,711,274	8,672,194	8,479,023	8,542,813	8,607,241	8,672,314
Operating Expenses	6,042,276	5,410,717	5,504,169	5,899,762	6,065,164	6,226,119	6,396,903	6,567,660
Other Income	52,199	43,360	30,024	32,703	32,703	32,703	32,703	32,703
Cash Flow Before Debt Service	2,529,238	2,085,740	2,237,129	2,805,135	2,446,562	2,349,397	2,243,041	2,137,357
Debt Service								
Existing Debt Service	1,446,061	1,771,330	2,046,426	2,010,735	1,462,459	1,564,181	1,563,115	1,519,390
Proposed KIA Loan	0	0	0	0	0	0	38,630	38,630
Total Debt Service	1,446,061	1,771,330	2,046,426	2,010,735	1,462,459	1,564,181	1,601,745	1,558,020
Cash Flow After Debt Service	1,083,177	314,410	190,703	794,400	984,103	785,216	641,296	579,337
Ratios								
Current Ratio	3.5	2.7	2.9	1.8	2.8	2.9	3.1	3.2
Debt to Equity	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Days Sales in Accounts Receivable	46.7	52.1	46.2	46.3	46.3	46.3	46.3	46.3
Months Operating Expenses in Unrestricted Cash	5.1	6.6	5.4	4.7	4.9	5.1	5.2	5.3
Debt Coverage Ratio	1.7	1.2	1.1	1.4	1.7	1.5	1.4	1.4

EXECUTIVE SUMMARY		Reviewer	Meili Sun	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 11, 2018	
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number	F19-019	
REVOLVING LOAN FUND		WRIS Number	WX21207025	
BORROWER	CITY OF JAMESTOWN RUSSELL COUNTY			
BRIEF DESCRIPTION				
This project will replace 7,400 LF of 2", 4", and 6" cast iron and galvanized waterlines with 6" PVC, SDR-17 waterlines in downtown Jamestown on Shelby Street, Virginia Avenue, Main Street, Ballard Street, Jefferson Street, and Meadows Lane. The construction will also include road bores, customer reconnects, tie-ins, and all other necessary appurtenances to complete the project.				
PROJECT FINANCING		PROJECT BUDGET		
Fund F Loan	\$500,000	Administrative Expenses	RD Fee %	Actual %
CDBG	500,000	Legal Expenses		
	-	Planning		
	-	Eng - Design / Const	9.3%	8.6%
	-	Eng - Insp	6.1%	5.8%
	-	Eng - Other		
	-	Construction		
	-	Contingency		
TOTAL	\$1,000,000	TOTAL		\$1,000,000
REPAYMENT	Rate	0.50%	Est. Annual Payment	\$9,609
	Term	30 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Kenvirons, Inc.		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	May-19		
	Construction Start	Jun-19		
	Construction Stop	Mar-20		
DEBT PER CUSTOMER	Existing	\$2,367		
	Proposed	\$2,090		
OTHER DEBT	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	3,629	\$27.50	(for 4,000 gallons)
	Additional	0	\$27.50	(for 4,000 gallons)
REGIONAL COORDINATION	This project is consistent with regional planning recommendations.			
CASHFLOW	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2015	181,611	484,147	(302,536)	0.4
Audited 2016	291,042	525,106	(234,064)	0.6
Audited 2017	448,797	563,517	(114,720)	0.8
Projected 2018	402,303	561,937	(159,634)	0.7
Projected 2019	777,398	561,959	215,439	1.4
Projected 2020	729,025	561,697	167,328	1.3
Projected 2021	678,385	571,662	106,723	1.2
Projected 2022	628,058	526,140	101,918	1.2

Reviewer: Meili Sun
 Date: December 11, 2018
 Loan Number: F19-019

**KENTUCKY INFRASTRUCTURE AUTHORITY
 DRINKING WATER STATE REVOLVING FUND (FUND F)
 CITY OF JAMESTOWN, RUSSELL COUNTY
 PROJECT REVIEW
 WX21207025**

I. PROJECT DESCRIPTION

This project will replace 7,400 LF of 2”, 4”, and 6” cast iron and galvanized waterlines with 6” PVC, SDR-17 waterlines in downtown Jamestown on Shelby Street, Virginia Avenue, Main Street, Ballard Street, Jefferson Street, and Meadows Lane. Many of these waterlines have been in service since 1950’s and are in need of replacement to help the City run a more efficient system. It will also include road bores, customer reconnects, tie-ins and all other necessary appurtenances to maintain compliance with the Safe Drinking Water Act

The utility currently serves approximately 3,629 retail customers and supplies wholesale water to the Columbia/Adair Utilities District Water System and the Russell Springs Sewer & Water Works.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 45,000
Legal Expenses	15,000
Planning	40,000
Engineering Fees – Design	67,000
Engineering Fees – Inspection	45,000
Engineering Fees – Other	10,000
Construction	709,300
Contingency	68,700
Total	\$ 1,000,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
KIA Fund F Loan	\$ 500,000	50%
CDBG Grant	500,000	50%
Total	\$ 1,000,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$	500,000
Less: Principal Forgiveness		250,000
Amortized Loan Amount	\$	250,000
Interest Rate		0.50%
Loan Term (Years)		30
Estimated Annual Debt Service	\$	8,984
Administrative Fee (0.25%)		625
Total Estimated Annual Debt Service	\$	9,609

V. PROJECT SCHEDULE

Bid Opening	May 2019
Construction Start	June 2019
Construction Stop	March 2020

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Current
Residential	3,485
Commercial	144
Total	3,629

B) Rates

	Water Inside City		Water Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	04/01/18	07/01/15	04/01/18	07/01/15
Minimum - First 1,500 Gallons	\$15.00	\$9.46	\$22.00	\$16.41
Next 3,000 Gallons	4.00	3.64	4.00	3.64
Cost for 4,000 gallons	\$25.00	\$18.56	\$32.00	\$25.51
Increase %	34.7%		25.4%	
Affordability Index (Rate/MHI)	1.0%	0.7%	1.2%	1.0%

	Wholesale	
	Current	Prior
Date of Last Rate Increase	04/01/18	07/01/15
Per 1,000 Gallons	\$2.15	\$1.85
Increase %	16.2%	

	Sewer Inside City		Sewer Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	04/01/18	07/01/15	04/01/18	07/01/15
Minimum - First 1,500 Gallons	\$15.00	\$11.06	\$22.00	\$22.12
Next 3,000 Gallons	5.00	5.13	6.00	5.91
Cost for 4,000 gallons	\$27.50	\$23.89	\$37.00	\$36.90
Increase %	15.1%		0.3%	
Affordability Index (Rate/MHI)	1.1%	0.9%	1.4%	1.4%

	Wholesale	
	Current	Prior
Date of Last Rate Increase	04/01/18	07/01/15
Minimum - First 1,500 Gallons	\$4.15	\$3.45
Increase %	20.3%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility’s service area population was 7,402 with a Median Household Income (MHI) of \$31,244. The median household income for the Commonwealth is \$44,811. The project will qualify for a 0.50% interest rate as its MHI is below 80% of the State average.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	1,441		13,708		June 2005	5.9%
1990	1,641	13.9%	14,716	7.4%	June 2010	11.5%
2000	1,624	-1.0%	16,315	10.9%	June 2015	12.0%
2010	1,794	10.5%	17,684	8.4%	June 2018	6.1%
Current	1,989	10.9%	17,731	0.3%		
Cumulative %		38.0%		29.3%		

VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - The Drinking Water capitalization grant does not contain a “green” requirement.
- 2) Additional Subsidization – This project qualifies for additional subsidization. Principal forgiveness of 50% of the assistance amount, not to exceed \$250,000 will be credited to the loan balance upon release of liens on all contracts and disbursement of the final draw request by KIA to the borrower.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended June 30, 2015 through June 30, 2017. The non-cash impact of GASB 68, Accounting and Financial Reporting for Pensions, has been removed from fiscal 2015, 2016, and 2017 operating expenses. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Combined water and sewer revenues increased 8.2% from \$2.53 million in 2015 to \$2.74 million in 2017 due to previously approved wholesale and retail rate increases while operating expenses decreased 2.3% during the same period. The debt coverage ratio was 0.4, 0.6, and 0.8 in 2015 through 2017 respectively.

The balance sheet reflects a current ratio of 4.6, a debt to equity ratio of 0.7, 36.1 days sales in accounts receivable, and 10.4 month operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Combined retail and wholesale water revenues will increase at least 16% and sewer revenues will increase at least 15% in 2019 for new rates effective April 1, 2018.
- 2) Expenses will increase 2% annually for general inflation.
- 3) The City will receive a CDBG grant in the amount of \$500,000.
- 4) Debt service coverage is 1.2 in 2021 when full year principal and interest repayments begin.

Based on the pro forma assumptions, the utility shows adequate cash flow to repay the KIA Fund F loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$26,000 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$1,300 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	Outstanding	Maturity
Water & Sewer Revenue Bonds 1996	\$ 297,500	2036
Water & Sewer Revenue Bonds 1999	202,500	2039
Water & Sewer Revenue Bonds 2004	607,000	2043
Waterworks & Sewer Revenue Bonds 2009	3,603,000	2048
KIA Loan B06-04	2,263,657	2039
KIA Loan A12-04	1,615,005	2035
Total	\$ 8,588,662	

XI. CONTACTS

Legal Applicant	
Name	City of Jamestown
Address	202 Monument Square, PO Box 587 Jamestown, KY 42629
County	Russell
Authorized Official	Nick Shearer, Mayor
Phone	(270) 343-4594
Email	nick.shearer21@gmail.com

Project Contact - Applicant	
Name	Tyler McGowan, City Clerk
Representing	City of Jamestown
Address	112 N Main Street Jamestown, KY 42629
Phone	(270) 343-4594
Email	tylerm@j-town.org

Project Administrator	
Name	Lake Cumberland Area Development District
Address	2384 Lakeway Dr, PO Box 1570 Russell Springs, KY 42642
Contact	Waylon Wright
Phone	(270) 866-4200
Email	waylon@lcadd.org

Consulting Engineer

Name	Eddie Wayne Brown
Firm	Kenvirons, Inc
Address	452 Versailles Rd Frankfort, KY 40601
Phone	(502) 695-4357
Email	ebrown@kenvirons.com

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions.

**CITY OF JAMESTOWN
FINANCIAL SUMMARY (JUNE YEAR END)**

	<u>Audited</u> <u>2015</u>	<u>Audited</u> <u>2016</u>	<u>Audited</u> <u>2017</u>	<u>Projected</u> <u>2018</u>	<u>Projected</u> <u>2019</u>	<u>Projected</u> <u>2020</u>	<u>Projected</u> <u>2021</u>	<u>Projected</u> <u>2022</u>
Balance Sheet								
Assets								
Current Assets	2,635,006	2,461,129	2,329,232	2,169,630	2,254,518	2,287,983	2,309,328	2,329,712
Other Assets	26,610,072	26,323,608	25,314,244	23,649,012	22,616,769	21,546,037	20,653,122	19,506,362
Total	29,245,078	28,784,737	27,643,476	25,818,642	24,871,287	23,834,021	22,962,450	21,836,074
Liabilities & Equity								
Current Liabilities	515,816	528,629	504,088	513,292	522,497	540,713	504,527	477,774
Long Term Liabilities	10,528,621	10,490,221	10,397,015	10,024,790	9,682,367	9,323,228	9,001,875	8,708,875
Total Liabilities	11,044,437	11,018,850	10,901,103	10,538,082	10,204,864	9,863,941	9,506,402	9,186,649
Net Assets	18,200,641	17,765,887	16,742,373	15,280,560	14,666,423	13,970,080	13,456,048	12,649,425
Cash Flow								
Revenues	2,530,948	2,420,393	2,739,899	2,739,899	3,162,418	3,162,418	3,162,418	3,162,418
Operating Expenses	2,380,733	2,159,095	2,324,714	2,371,208	2,418,632	2,467,005	2,517,645	2,567,972
Other Income	31,396	29,744	33,612	33,612	33,612	33,612	33,612	33,612
Cash Flow Before Debt Service	181,611	291,042	448,797	402,303	777,398	729,025	678,385	628,058
Debt Service								
Existing Debt Service	484,147	525,106	563,517	561,937	561,959	561,697	562,053	516,531
Proposed KIA Loan	0	0	0	0	0	0	9,609	9,609
Total Debt Service	484,147	525,106	563,517	561,937	561,959	561,697	571,662	526,140
Cash Flow After Debt Service	(302,536)	(234,064)	(114,720)	(159,634)	215,439	167,328	106,723	101,918
Ratios								
Current Ratio	5.1	4.7	4.6	4.2	4.3	4.2	4.6	4.9
Debt to Equity	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7
Days Sales in Accounts Receivable	28.7	36.3	36.1	36.1	36.1	36.1	36.1	36.1
Months Operating Expenses in Unrestricted Cash	11.7	12.1	10.4	9.4	9.5	9.4	9.4	9.3
Debt Coverage Ratio	0.4	0.6	0.8	0.7	1.4	1.3	1.2	1.2