

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

- ***Fund A Loan***

<u>Loan #</u>	<u>Borrower</u>	<u>Amount Requested</u>	<u>Loan Total</u>	<u>County</u>
A15-090	City of Nicholasville (Increase)	\$ 565,466	\$ 906,446	Jessamine
A19-028	Louisville and Jefferson County Metropolitan (Director Level Increase)	\$ 2,200,000	\$ 24,200,000	Jefferson

- ***Fund B Loan***

<u>Loan #</u>	<u>Borrower</u>	<u>Amount Requested</u>	<u>Loan Total</u>	<u>County</u>
B19-007	City of Mayfield	\$ 2,221,117	\$ 2,221,117	Graves

- ***Fund F Loan***

<u>Loan #</u>	<u>Borrower</u>	<u>Amount Requested</u>	<u>Loan Total</u>	<u>County</u>
F19-025	Allen County Water District	\$ 2,450,000	\$ 2,450,000	Allen

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND A, FEDERALLY ASSISTED WASTEWATER REVOLVING LOAN FUND		Reviewer Date KIA Loan Number WRIS Number	Michael Dant August 6, 2019 A15-90 (Increase) SX21113027
BORROWER		CITY OF NICHOLASVILLE JESSAMINE COUNTY	
BRIEF DESCRIPTION			
This project is requesting an increase of \$565,466 to an existing loan of \$340,980 originally approved on April 2, 2015. The increase is needed to fund a change in scope due to a completed sanitary sewer overflow (SSO) project that reduced the capacity of the sewer line into which this project was originally planned to flow.			
The project consists of the installation of approximately 5,000 linear feet of 10-inch through 12-inch gravity sewers and related appurtenances. The project also includes the elimination of the existing Brittney Heights Lift Station, and modifications to the East Jessamine Middle School Lift Station to handle the diverted flows.			
The original project description was: The project will replace and enlarge approximately 2,445 linear feet (LF) of existing gravity sewer lines to provide sufficient capacity to convey wastewater flows. The parallel and replacement sewers would be a combination of 10 and 12 inch diameter pipes.			
PROJECT FINANCING		PROJECT BUDGET	
Fund A Loan	\$906,446	RD Fee %	Actual %
HB 303 Reallocation	19,811	Administrative Expenses	\$0
-	-	Legal Expenses	-
-	-	Land, Easements	-
-	-	Relocation Expense & Payments	-
-	-	Planning	-
-	-	Eng - Design / Const	9.1% 10.7% 89,200
-	-	Eng - Insp	5.9% 0.3% 2,500
-	-	Eng - Other	-
-	-	Construction	794,557
-	-	Equipment	-
-	-	Contingency	40,000
-	-	Other	-
TOTAL	\$926,257	TOTAL	\$926,257
REPAYMENT	Rate	2.75%	Est. Annual Payment
	Term	20 Years	\$61,039
			1st Payment 6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Banks Engineering Inc.	
	Bond Counsel	Dinsmore & Shohl, LLP	
PROJECT SCHEDULE	Bid Opening	May-19	
	Construction Start	Aug-19	
	Construction Stop	May-20	
DEBT PER CUSTOMER	Existing	\$1,815	
(water & sewer combined)	Proposed	\$1,634	
OTHER DEBT	See Attached		
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached		
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>
	Current	14,053	\$22.49 (for 4,000 gallons)
	Additional	0	\$22.49 (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 2016	3,745,270	4,050,386	(305,116) 0.9
Audited 2017	4,387,065	4,086,663	300,402 1.1
Audited 2018	3,618,626	4,019,442	(400,816) 0.9
Projected 2019	4,434,704	2,931,229	1,503,475 1.5
Projected 2020	4,968,836	2,919,110	2,049,727 1.7
Projected 2021	4,801,615	3,013,714	1,787,901 1.6
Projected 2022	4,631,070	3,013,307	1,617,763 1.5
Projected 2023	4,457,134	3,008,625	1,448,509 1.5

Reviewer: Michael Dant
Date: August 6, 2019
Loan Number: A15-090 Increase

**KENTUCKY INFRASTRUCTURE AUTHORITY
WASTEWATER REVOLVING LOAN FUND (FUND A)
CITY OF NICHOLASVILLE, JESSAMINE COUNTY
PROJECT REVIEW
SX21113027**

I. PROJECT DESCRIPTION

The City of Nicholasville is requesting a Fund A loan increase in the amount of \$565,466 for the Orchard SSO Relief and Brittany Lift Station Elimination project. The project was originally approved on April 2, 2015 in the amount of \$340,980.

The purpose of the project, as originally approved, was to provide sufficient capacity to convey wastewater flows downstream of, and in, the Orchard area of Nicholasville to improve surface water quality while also reducing the incidence and duration of wet weather overflows from seven existing manholes. The increase is needed to fund a change in scope due to a completed sanitary sewer overflow (SSO) project that reduced the capacity of the sewer line into which this project was originally planned to flow.

The City of Nicholasville experiences several recurring sanitary sewer overflows (SSOs) in the vicinity of Lake Mingo Park northeast of downtown. The sanitary sewer system in that area receives flow from the Brittney Heights Lift Station (BHLS), which serves several residential subdivisions including the Orchard Subdivision. Studies have shown that increasing system capacity downstream of the SSOs, per the original design, would likely cause new SSOs in the downtown area. Therefore the current project scope involves elimination of the Brittney Heights Lift Station with a new gravity sewer and upsizing a portion of the existing sewer system to divert the BHLS flow to the 30-inch Town Fork Interceptor downstream of downtown Nicholasville. The new gravity sewers will include capacity for potential new development along the route.

The project consists of the installation of approximately 5,000 linear feet of 10-inch through 12-inch gravity sewers and related appurtenances. The project also includes the elimination of the existing BHLS, and modifications to the East Jessamine Middle School Lift Station to handle the diverted flows.

The Nicholasville Sewer Department currently serves approximately 11,319 customers in Jessamine County.

II. PROJECT BUDGET

	<u>Total</u>
Engineering Fees - Design	\$ 79,200
Engineering Fees - Construction	10,000
Engineering Fees - Inspection	2,500
Construction	794,557
Contingency	40,000
Total	\$ 926,257

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 906,446	98%
HB 303 Reallocation	19,811	2%
Total	\$ 926,257	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 906,446
Less: Principal Forgiveness	0
Amortized Loan Amount	\$ 906,446
Interest Rate	2.75%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 59,226
Administrative Fee (0.20%)	1,813
Total Estimated Annual Debt Service	\$ 61,039

V. PROJECT SCHEDULE

Bid Opening	May 9, 2019
Construction Start	August 2019
Construction Stop	May 2020

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

	<u>Current</u>
Residential	10473
Commercial	818
Industrial	28
Total	11,319

B) Rates

SEWER	INSIDE CITY		OUTSIDE CITY	
	Current	Prior	Current	Prior
Date of Last Rate Increase	07/01/09	07/01/08	07/01/09	07/01/08
Minimum	\$4.25	\$4.25	\$6.35	\$6.35
Volume charge per 1,000 gallons	4.56	4.28	6.84	6.42
Cost for 4,000 gallons	\$22.49	\$21.37	\$33.71	\$32.03
Increase %	5.2%		5.2%	
Affordability Index (Rate/MHI)	0.6%	0.5%	0.8%	0.8%
WATER				
	Inside City		Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	08/01/18	07/01/13		07/01/13
Fixed (based on water meter size)				
3/4 in	\$4.42	\$4.25	\$6.60	\$6.35
First 10,000 Gallons, per 1,000	4.43	4.13	6.48	6.11
All Over 10,000 Gallons, per 1,000	4.29	4.00	6.28	5.91
Cost for 4,000 gallons	\$22.14	\$20.77	\$32.52	\$30.79
Increase %	6.6%		5.6%	
Affordability Index (Rate/MHI)	0.6%	0.6%	0.9%	0.8%

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2013-2017, the Utility's service area population was 29,116 with a Median Household Income (MHI) of \$47,964. The median household income for the Commonwealth is \$46,535. The project will retain the original interest rate of 2.75%.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	10,400		26,146		June 2005	5.3%
1990	13,603	30.8%	30,508	16.7%	June 2010	8.5%
2000	19,680	44.7%	39,041	28.0%	June 2015	4.6%
2010	28,015	42.4%	48,586	24.4%	June 2018	4.2%
Current	29,547	5.5%	51,667	6.3%		
Cumulative %		184.1%		97.6%		

VIII. 2014 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, 2013 through June 30, 2018 (2016-2018 presented). 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

The City of Nicholasville accounts for sewer operations as a part of its Utilities Fund. The utilities fund encompasses water, sewer, and electricity. Certain categories of revenue and expense are combined between these activities thus preventing a completely independent analysis of the sewer system alone. For this reason the entire utility fund was analyzed and projected while separating out information for the sewer system where practical.

Combined Revenues increased six percent from \$24.2 Million in 2016 to \$25.7 million in 2018. Expenses, not including depreciation, increased 7.6% from \$20.7 million in 2016 to \$22.3 million in 2018.

Cash flow before debt service available for debt service decreased 3.4% from \$3.7 million in 2016 to \$3.6 million in 2018.

The debt coverage ratio was 0.9 in 2016, 1.1 in 2017, and 0.9 in 2018.

The financial statements between 2013 and 2018 were reviewed extensively to determine the areas (water, sewer, or electric) that were contributing to the subpar debt coverage ratios. Between 2013 and 2018 the average yearly change in the net operating income (revenue minus expenses) generated by the individual funds was: electric 10% decrease, water 3.4% decrease, sewer 1.5% increase.

Electric had the biggest impact on the overall fund. Not only because it showed the largest decline but also because its revenues and expenses are much larger than that of water and sewer combined. 2018 Electric revenue was \$16.1 million compared to \$8.8 million for water and sewer combined. Of all expenses, not including depreciation, electric directly accounted for 69%. The purchase of electric alone was 63% of all expenses.

Analysis suggested that in recent years the electric purchase cost fluctuations were not being fully reimbursed through the city's system of rate adjustment. Projecting this trend into the future produced poor financial results.

Despite the above, the city was able to maintain current ratios of 1.1 or higher. Debt to equity of 0.8 or higher. Months of operating expenses in unrestricted cash of 9.6 in 2018.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues are projected at 0% growth through 2023, except:
 - A water rate increase of 6.4% was put into place during the 2019 FY.
 - Electric Revenues were adjusted based on a revised rate schedule proposed to go into effect during FY 2020.
- 2) Expenses were projected to increase 2% each year, except:
 - Water Purchases were projected to increase at 0.4% each year based on a very small amount of water purchases that are subject to possible rate increases without the normal wholesale rate recovery process.
 - Electric Purchase Costs:
 - Electric purchases costs for FY 2019 were adjusted based on overpayment refunds received.
 - FY 2020 purchase costs were revised downward reflecting

reduced rates from Kentucky Utilities.

- The electric purchase costs from 2020 to 2023 are projected to be flat. This is based upon the City's proposal to review the electric net operating income each year and True-Up costs not recovered during the past year. Those costs would be recovered in the rate adjustments for the coming year.

3) The debt coverage ratio is 1.6 in FY 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 Utility maintains a "Repair and Replacement fund" to make major repairs and replacements and to pay the cost of construction of additions, extensions and improvements. Based on this the original project was approved without a replacement reserve requirement. During the increase analysis, it was determined that the account averaged \$2,444,641 or 3.2% of property, plant, and equipment between 2016 and 2018. Based on this, the original credit review recommendation of no replacement reserve requirement is continued.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
KIA - C02-02	\$1,400,457	2023
KIA - A06-07	\$6,948,527	2028
KIA - F07-08	\$5,892,114	2030
KIA - A08-06	\$4,151,120	2031
KIA - F13-022	\$436,243	2035
KIA - F115-066 (i/a/o \$416,120)	\$0	TBD
KIA - F17-001 (i/a/o \$553,000)	\$0	TBD
A15-090 - Requesting increase (original amount \$340,890)	\$27,840	TBD
General Obligation Bonds	\$6,538,262	2031
General Obligation Note	\$106,145	2023
Total	<u>\$25,500,708</u>	

XI. CONTACTS

Legal Applicant	
Entity Name	City of Nicholasville
Authorized Official	Peter Sutherland (Mayor)
County	Jessamine
Email	pete.sutherland@nicholasville.org
Phone	(859) 885-1121
Address	P.O. Box 450 Nicholasville, KY 40356

Project Administrator	
Name	Robert A. Amato
Organization	City of Nicholasville
Email	bob.amato@nicholasville.org
Phone	(859) 885-9473
Address	601 N Main St. Nicholasville, KY 40340

Consulting Engineer	
PE Name	John B. Steinmetz
Firm Name	Banks Engineering Inc.
Email	jsteinmetz@banksengineering.net
Phone	(859) 881-0020
Address	1211 Jessamine Station Pike Nicholasville, KY 40356

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions and the following special condition:

1. By October 1, 2019, the city passes a revised rate schedule providing adequate revenue to produce a minimum of a 1.0 debt coverage ratio.
2. By October 1, 2019, the City passes a resolution to review the electric each year and true-up costs not recovered during the past year.

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

	<u>Audited 2016</u>	<u>Audited 2017</u>	<u>Audited 2018</u>	<u>Projected 2019</u>	<u>Projected 2020</u>	<u>Projected 2021</u>	<u>Projected 2022</u>	<u>Projected 2023</u>
Balance Sheet								
Assets								
Current Assets	7,884,080	6,925,704	6,896,024	7,241,466	7,601,611	7,959,192	8,282,744	8,572,446
Other Assets	82,988,511	81,455,116	85,726,660	84,651,696	84,900,523	83,436,498	81,836,363	80,100,824
Total	90,872,591	88,380,820	92,622,684	91,893,162	92,502,134	91,395,690	90,119,107	88,673,270
Liabilities & Equity								
Current Liabilities	6,431,153	6,426,416	5,675,707	5,743,878	5,915,166	6,041,388	6,167,216	5,934,263
Long Term Liabilities	34,437,514	34,337,952	34,927,203	33,272,411	32,273,811	29,850,262	27,363,886	25,174,662
Total Liabilities	40,868,667	40,764,368	40,602,910	39,016,289	38,188,976	35,891,651	33,531,102	31,108,926
Net Assets	50,003,924	47,616,452	52,019,774	52,876,873	54,313,158	55,504,039	56,588,005	57,564,345
Cash Flow								
Revenues	24,183,693	25,366,117	25,669,651	26,001,495	25,632,754	25,632,754	25,632,754	25,632,754
Operating Expenses	20,704,790	21,210,027	22,280,646	21,796,412	20,893,539	21,060,760	21,231,305	21,405,241
Other Income	266,367	230,975	229,621	229,621	229,621	229,621	229,621	229,621
Cash Flow Before Debt Service	3,745,270	4,387,065	3,618,626	4,434,704	4,968,836	4,801,615	4,631,070	4,457,134
Debt Service								
Existing Debt Service	4,050,386	4,086,663	4,019,442	2,931,229	2,919,110	2,952,675	2,952,268	2,947,586
Proposed KIA Loan	0	0	0	0	0	61,039	61,039	61,039
Total Debt Service	4,050,386	4,086,663	4,019,442	2,931,229	2,919,110	3,013,714	3,013,307	3,008,625
Cash Flow After Debt Service	(305,116)	300,402	(400,816)	1,503,475	2,049,727	1,787,901	1,617,763	1,448,509
Ratios								
Current Ratio	1.2	1.1	1.2	1.3	1.3	1.3	1.3	1.4
Debt to Equity	0.8	0.9	0.8	0.7	0.7	0.6	0.6	0.5
Days Sales in Accounts Receivable	50.2	47.5	49.3	49.3	49.3	49.3	49.3	49.3
Months Operating Expenses in Unrestricted Cash	12.0	10.9	9.6	10.4	11.4	12.2	12.9	13.4
Debt Coverage Ratio	0.9	1.1	0.9	1.5	1.7	1.6	1.5	1.5

EXECUTIVE SUMMARY		Reviewer	Ashley Adams	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	July 31, 2019	
FUND A, FEDERALLY ASSISTED WASTEWATER		KIA Loan Number	A19-028 (Increase)	
REVOLVING LOAN FUND		WRIS Number	SX21111101	
BORROWER	LOUISVILLE & JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT JEFFERSON COUNTY			
BRIEF DESCRIPTION				
This is a director level loan increase request in the amount of \$2.2 million (10%) of the original loan amount. MSD has requested the loan increase due to bids coming in higher than originally estimated.				
Original 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	\$24,200,000	Administrative Expenses	\$150,300	
Local Funds	4,981,788	Planning	160,765	
		Eng - Design / Const	2,973,034	
		Eng - Insp	984,820	
		Construction	23,869,685	
		Contingency	330,315	
		Other	712,869	
TOTAL	\$4,981,788	TOTAL	\$29,181,788	
REPAYMENT	Rate	2.00%	Est. Annual Payment	\$1,522,451
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Louisville MSD		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Jun-19		
	Construction Start	Sep-19		
	Construction Stop	Nov-21		
DEBT PER CUSTOMER	Existing	\$8,967		
	Proposed	\$8,288		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES		Users	Avg. Bill	
	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	151,884	118,034	1.8
Projected 2023	290,264	156,993	133,271	1.8

Reviewer: Ashley Adams
Date: July 31, 2019
Loan Number: A19-028 Increase

**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 an increase to loan A19-028 in the amount of \$2,200,000 for the Hite Creek Water Quality Treatment Center project due to bids coming in higher than estimated. The loan was originally approved for \$22,000,000 on December 11, 2018 and the increase will bring the new loan total to \$24,200,000.

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>
Administrative Expenses	\$ 150,300
Planning	160,765
Engineering Fees - Design	1,522,140
Engineering Fees - Construction	1,450,894
Engineering Fees - Inspection	984,820
Construction	23,869,685
Contingency	330,315
Other	712,869
Total	\$ 29,181,788

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 24,200,000	83%
Local Funds	4,981,788	17%
Total	\$ 29,181,788	100%

IV. KIA DEBT SERVICE

Construction Loan	\$24,200,000
Less: Principal Forgiveness	<u>0</u>
Amortized Loan Amount	\$24,200,000
Interest Rate	2.00%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 1,474,051
Administrative Fee (0.20%)	<u>48,400</u>
Total Estimated Annual Debt Service	\$ 1,522,451

V. PROJECT SCHEDULE

Bid Opening	June 2019
Construction Start	September 2019
Construction Stop	November 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%	

MSD anticipates another 6.9% increase in 2019 but it has not been approved as of this analysis. Rates would be effective August 1, 2019.

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2013-2017, the Utility's service area population was 732,531 with a Median Household Income (MHI) of \$53,919. The median household income for the Commonwealth is \$46,565. The project will retain the original loan's 2.0% interest rate which was based on the Utility being a regional service provider and having a Consent Decree with the EPA.

Year	Population		County	% Change	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 for both KIA Loan A19-015 and A19-028 (total of \$28,070,000).
- 4) Debt service coverage is 1.8 in 2023 when full 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>	<u>Outstanding</u>	<u>Maturity</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	Tony Harover
Organization	Louisville MSD
Email	tony.harover@louisvillemsd.org
Phone	502-540-6619
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	187,608	203,235
Other Assets	2,775,732	2,934,908	3,164,908	3,123,570	3,143,341	3,169,850	3,193,707	3,231,277
Total	2,899,781	3,060,122	3,304,835	3,273,437	3,304,407	3,343,455	3,381,315	3,434,512
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	2,248,997	2,206,193	2,147,792	2,089,392
Total Liabilities	2,299,201	2,391,634	2,596,161	2,427,771	2,390,933	2,352,048	2,296,609	2,239,608
Net Assets	600,580	668,488	708,674	845,666	913,474	991,407	1,084,706	1,194,904
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	150,880	155,228
Proposed KIA Loans (A19-015, A19-028)	0	0	0	0	0	0	1,004	1,765
Total Debt Service	115,735	122,034	124,787	135,346	140,424	145,613	151,884	156,993
Cash Flow After Debt Service	58,291	64,236	77,091	81,721	92,989	105,387	118,034	133,271
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	9.9	10.9
Debt Coverage Ratio	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND B, INFRASTRUCTURE		Reviewer	Ashley Adams		
		Date	August 6, 2019		
		KIA Loan Number	B19-007		
		WRIS Number	WX21083021		
REVOLVING LOAN FUND			SX21083047		
			SX21083061		
			SX21083055		
BORROWER	CITY OF MAYFIELD GRAVES COUNTY				
BRIEF DESCRIPTION					
This loan will fund three separate sewer projects and a drinking water project. Project SX21083055 will construct a new wet well and pump station adjacent to the existing 10th Street wet well and pump station. The purpose of the project is to alleviate the I/I from three manholes in the immediate vicinity of the existing wet well. Project SX21083061 will install a bar screen at the Todd Lift Station in order to alleviate issues due to increased garbage and medical waste. Project SX21083047 was the purchase of a sewer cleaning truck in April 2018. Project WX21083021 funded water line extensions of approximately 4,000 linear feet to provide water and fire services to the Wildwood Subdivision in the Douthitt Road area; this project took place in 2016-2017 and is complete.					
PROJECT FINANCING		PROJECT BUDGET		RD Fee %	Actual %
Fund B Loan	\$2,221,117	Eng - Design / Const			130,092
		Eng - Insp			64,040
		Construction			1,454,485
		Equipment			390,000
		Contingency			182,500
TOTAL	\$2,221,117	TOTAL			\$2,221,117
REPAYMENT	Rate	0.50%	Est. Annual Payment		\$121,282
	Term	20 Years	1st Payment	6 Mo. after first draw	
PROFESSIONAL SERVICES	Engineer	Water Management Services			
	Bond Counsel	Dinsmore & Shohl, LLP			
		SX21083055	SX21083061	SX21083047	WX21083021
PROJECT SCHEDULE	Bid Opening	Nov-19	Nov-19	Apr-18	Nov-16
	Construction Start	Dec-20	Dec-19	Complete	Mar-17
	Construction Stop	Aug-20	Feb-20		Oct-17
DEBT PER CUSTOMER	Existing	\$529			
	Proposed	\$918			
OTHER DEBT	See Attached				
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached				
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>		
	Current - Water	4,975	\$17.33 (for 4,000 gallons)		
	Current - Sewer	4,875	\$22.01 (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 2016	1,031,961	51,219	980,742		20.1
Audited 2017	1,140,373	333,491	806,882		3.4
Audited 2018	1,236,192	185,820	1,050,372		6.7
Projected 2019	1,315,257	91,407	1,223,850		14.4
Projected 2020	1,417,481	157,472	1,260,009		9.0
Projected 2021	1,516,898	239,840	1,277,058		6.3
Projected 2022	1,449,639	300,436	1,149,203		4.8
Projected 2023	1,378,536	300,622	1,077,914		4.6

Reviewer: Ashley Adams
Date: August 6, 2019
Loan Number: B19-007

**KENTUCKY INFRASTRUCTURE AUTHORITY
INFRASTRUCTURE REVOLVING LOAN FUND (FUND B)
CITY OF MAYFIELD, GRAVES COUNTY
PROJECT REVIEW
SX21083055, SX21083061, SX21083047
WX21083021**

I. PROJECT DESCRIPTIONS

The City of Mayfield is requesting a Fund B loan in the amount of \$2,221,117 for the following four projects, two of which are already complete:

Existing 10th St. Wetwell and Force Main Project (SX21083055):

This project is to construct a new wet well and pump station, adjacent to the existing 10th St. wet well and pump station. The existing wet well will be rehabilitated with the pumps removed, and flow into the new wet well in order to prevent the relocation of four upstream gravity sewer lines that feed into the existing wet well. Additionally, a new force main (4" or 6") will be constructed to replace the existing 4" asbestos cement force main that currently flows away from the existing wet well. This new line will follow the alignment of the existing line. This is a change from the original project profile, which proposed a much larger 15" force main with a different alignment leaving the new pump station.

The purpose of the project is to alleviate the I/I from three manholes in the immediate vicinity of the existing wet well. The project scope has been reduced from the original project profile to eliminate the effort to consolidate flows from three existing package treatment plants. The smaller force main leaving the new wet well does not allow for adequate capacity for additional flows from the package plants. However, that consolidation is still part of the long term plans for Mayfield sewer service. Further engineering work will be necessary to complete that component.

Bar Screen for Todd Lift Station Project (SX21083061):

This project will replace the bar screen at the Todd lift station which frequently experiences issues due to an increase in garbage and medical waste.

Combination Sewer Cleaning Truck (SX21083047):

Reimbursement for the purchase of a sewer cleaning truck. This truck will help alleviate debris that builds up within sewer lines that restrict flow capacity. This will eliminate safety issues that workers encounter by limiting the confined space entries required for maintenance operations. The system has already purchased the truck.

Water Line Extension to Wildwood Subdivision (WX21083021):

This project, which has already been completed, ran approximately 3,300 linear feet of 6 inch water line to provide water and fire service to the unserved Wildwood Subdivision from Douthitt Road across the 121 bypass. Another 6 inch water line (approximately 1,000 LF) was installed from Douthitt Road across the 121 bypass to provide water and fire services to a commercial location.

Mayfield Electric and Water System serves nearly 5,000 water and sewer customers in the City of Mayfield and surrounding Graves County. Their operations also include electric and broadband.

II. PROJECT BUDGET

	<u>Total</u>
Engineering Fees - Design / Const.	\$ 130,092
Engineering Fees - Inspection	64,040
Construction	1,454,485
Equipment	390,000
Contingency	182,500
Total	\$ 2,221,117

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund B Loan	\$ 2,221,117	100%
Total	\$ 2,221,117	100%

IV. KIA DEBT SERVICE

Amortized Loan Amount	\$ 2,221,117
Interest Rate	0.50%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 116,840
Administrative Fee (0.20%)	4,442
Total Estimated Annual Debt Service	\$ 121,282

V. PROJECT SCHEDULE

	SX21083055	SX21083061	SX21083047	WX21083021
Bid Opening	Nov. 2019	Nov. 2019	April 2018	Nov. 2016
Construction Start	Dec. 2020	Dec. 2019	N/A	March 2017
Construction Stop	Aug. 2020	Feb. 2020	N/A	Oct. 2017

VI. RATE STRUCTURE

A. Customers

	Water	Sewer
Residential	4,316	4,200
Commercial	659	675
Total	4,975	4,875

B. Rates

Water	Inside City			Outside City		
	Future	Current	Prior	Future	Current	Prior
Date of Last Rate Increase	01/01/20	01/01/19	01/01/18	01/01/20	01/01/19	01/01/18
Minimum	\$10.12	\$9.55	\$9.01	\$14.25	\$13.44	\$12.68
Next 2,000 Gallons/1,000	4.12	3.89	3.67	6.18	5.83	5.50
Cost for 4,000 gallons	\$18.37	\$17.33	\$16.35	\$26.61	\$25.10	\$23.68
Increase %	6.0%	6.0%		6.0%	6.0%	
Affordability Index (Rate/MHI)	0.8%	0.8%		1.2%	1.2%	

Sewer	Inside City			Outside City		
	Future	Current	Prior	Future	Current	Prior
Date of Last Rate Increase	01/01/20	01/01/19	01/01/18	09/01/20	09/01/19	09/01/18
Minimum (2,000 gallons)	\$11.45	\$11.23	\$11.01	\$17.02	\$15.48	\$14.08
Next 2,000 Gallons/1,000	5.72	5.61	5.50	8.51	7.74	7.04
Cost for 4,000 gallons	\$22.89	\$22.45	\$22.01	\$34.05	\$30.97	\$28.16
Increase %	2.0%	2.0%		9.9%	10.0%	
Affordability Index (Rate/MHI)	1.1%	1.0%		1.6%	1.4%	

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population for drinking water was 10,709 and 10,472 for waste water with a Median Household Income (MHI) of \$26,755 and \$26,297, respectively. The median household income for the Commonwealth is \$44,811. The projects will qualify for a 0.50% interest rate based on MHI.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	10,705		34,049		June 2005	10.7%
1990	9,935	-7.2%	33,550	-1.5%	June 2010	9.2%
2000	10,349	4.2%	37,028	10.4%	June 2015	6.2%
2010	10,024	-3.1%	37,121	0.3%	June 2018	5.7%
Current	9,936	-0.9%	37,259	0.4%		
Cumulative %		-7.2%		9.4%		

VIII. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the water and sewer funds for the years ended June 30, 2016 through June 30, 2018. 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

Combined water and sewer revenues increased 10% from \$3.7 million in 2016 to \$4 million in 2018. Historically, water and sewer revenues average about the same each year with sewer contributing slightly more during the observed time period. Combined operating expenses increased 6% from \$2.7 million in 2016 to \$2.9 million in 2018. Increases in operating expenses are mostly attributed to General and Administrative expenses which includes salaries and benefits.

The 2018 balance sheet reflects a current ratio of 2.1, a debt to equity ratio of 1.2, and 2.8 months operating expenses in unrestricted cash. Days sales in accounts receivable information was not available for the utility as accounts receivable is reported only in the electric fund and the focus of this analysis was on water and sewer, specifically.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Water revenues will increase around 6% through 2021 while the majority (96%) of sewer revenues will increase 2% based on prior approved rate increases.
- 2) Expenses will increase 2% yearly for inflation.
- 3) Debt service coverage is 4.8 in 2022 when full principal and interest repayments begin.

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% (\$112,000 total) of the final amount borrowed (prior to principal forgiveness, if any) to be funded annually (\$5,600 yearly) each December 1 for 20 years and maintained for the life of the loan.

IX. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
KIA Loan (A209-13)	\$ 297,422	2031
FNB Bank	284,555	2033
KIA Loan (C16-001, i/a/o \$1,410,530)	1,323,585	2038
KIA Loan (B17-013, i/a/o \$849,000)	728,073	TBD
Total	\$ 2,633,635	

X. CONTACTS

Legal Applicant	
Entity Name	City of Mayfield
Authorized Official	Kathy S. O'Nan (Mayor)
County	Graves
Email	konan@mayfieldky.gov
Phone	270-251-6251
Address	301 East Broadway Mayfield, KY 42066

Applicant Contact

Name	Marty Ivey
Organization	Mayfield Electric and Water Systems
Email	gensupt@mewsbb.com
Phone	270-247-4661
Address	301 East Broadway Mayfield, KY 42066

Project Administrator

Name	Kevin Leonard
Organization	Mayfield Electric and Water Systems
Email	kleonard@mewsbb.com
Phone	270-247-4661
Address	301 East Broadway Mayfield, KY 42066

Consulting Engineer

PE Name	Steven Jones
Firm Name	Water Management Services
Email	sjones@wmsengineers.com
Phone	615-366-6088
Address	2 International Plaza, Suite 1 Nashville, TN, 37217

XI. RECOMMENDATIONS

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

CITY OF MAYFIELD
FINANCIAL SUMMARY (JUNE YEAR END)

	Audited <u>2016</u>	Audited <u>2017</u>	Audited <u>2018</u>	Projected <u>2019</u>	Projected <u>2020</u>	Projected <u>2021</u>	Projected <u>2022</u>
Balance Sheet							
Assets							
Current Assets	1,096,572	1,183,261	1,597,262	1,821,727	1,947,728	2,075,434	2,190,354
Other Assets	10,961,053	12,569,717	14,370,857	14,668,624	16,458,352	17,152,866	17,729,860
Total	12,057,625	13,752,978	15,968,119	16,490,351	18,406,080	19,228,299	19,920,214
Liabilities & Equity							
Current Liabilities	1,168,137	1,042,948	760,399	866,868	881,195	895,880	910,835
Long Term Liabilities	3,410,310	4,818,188	7,840,952	6,098,526	7,080,290	6,949,110	6,815,476
Total Liabilities	4,578,447	5,861,136	8,601,351	6,965,395	7,961,485	7,844,990	7,726,310
Net Assets	7,479,178	7,891,842	7,366,768	9,524,956	10,444,595	11,383,309	12,193,904
Cash Flow							
Revenues	3,733,669	3,937,140	4,094,329	4,255,319	4,424,545	4,592,304	4,592,304
Operating Expenses	2,688,188	2,786,880	2,852,438	2,931,776	2,998,778	3,067,120	3,134,379
Other Income (expense)	(13,520)	(9,887)	(5,699)	(8,286)	(8,286)	(8,286)	(8,286)
Cash Flow Before Debt Service	1,031,961	1,140,373	1,236,192	1,315,257	1,417,481	1,516,898	1,449,639
Debt Service							
Existing Debt Service	51,219	333,491	185,820	91,407	157,472	179,199	179,154
Proposed KIA Loan	0	0	0	0	0	60,641	121,282
Total Debt Service	51,219	333,491	185,820	91,407	157,472	239,840	300,436
Cash Flow After Debt Service	980,742	806,882	1,050,372	1,223,850	1,260,009	1,277,058	1,149,203
Ratios							
Current Ratio	0.9	1.1	2.1	2.1	2.2	2.3	2.4
Debt to Equity	0.6	0.7	1.2	0.7	0.8	0.7	0.6
Months Operating Expenses in Unrestricted Cash	1.1	1.7	2.8	3.2	3.6	4.0	4.3
Debt Coverage Ratio	20.1	3.4	6.7	14.4	9.0	6.3	4.8

EXECUTIVE SUMMARY		Reviewer	Meili Sun	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	August 6, 2019	
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number	F19-025	
REVOLVING LOAN FUND		WRIS Number	WX21003021	
BORROWER		ALLEN COUNTY WATER DISTRICT ALLEN COUNTY		
BRIEF DESCRIPTION				
The new 500,000 gallon elevated tank will replace the existing Lambert Road ground storage tank to address the short fill cycles and the lack of adequate storage capacity in this part of the Allen County Water District ("the District") distribution system. In addition to the new elevated tank, approximately 9,000 LF of 8-inch PVC water line will be run along Bowling Green Road to transport water pumped via the Halfway Booster Station to the Walker Chapel Pressure Zone. The Halfway Booster Station will have some internal piping switched out for installation of a new master meter to aid in the District's water loss program.				
PROJECT FINANCING		PROJECT BUDGET		
Fund F Loan	\$2,450,000	RD Fee %	Actual %	
				3,760
		Legal Expenses		150,000
		Eng - Design / Const	7.6%	6.9%
		Eng - Insp	4.5%	4.1%
		Eng - Other		32,056
		Construction		1,978,400
		Contingency		196,784
TOTAL	<u>\$2,450,000</u>	TOTAL		<u>\$2,450,000</u>
REPAYMENT	Rate	2.00%	Est. Annual Payment	\$155,357
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Bluegrass Engineering, PLLC		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Aug-19		
	Construction Start	Oct-19		
	Construction Stop	Aug-20		
DEBT PER CUSTOMER	Existing	\$846		
	Proposed	\$1,229		
OTHER DEBT	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	5,520	\$42.03	(for 4,000 gallons)
	Additional	0	\$42.03	(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 2016	668,932	343,740	325,192	1.9
Audited 2017	700,338	342,090	358,248	2.0
Audited 2018	269,244	343,740	(74,496)	0.8
Projected 2019	482,864	339,548	143,316	1.4
Projected 2020	455,757	340,989	114,768	1.3
Projected 2021	583,030	413,063	169,968	1.4
Projected 2022	554,827	490,963	63,864	1.1
Projected 2023	526,060	461,546	64,514	1.1

Reviewer: Meili Sun
Date: August 6, 2019
Loan Number: F19-025

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND F)
ALLEN COUNTY WATER DISTRICT, ALLEN COUNTY
PROJECT REVIEW
WX21003021**

I. PROJECT DESCRIPTION

The Allen County Water District (“District”) is requesting a Fund F loan in the amount of \$2,450,000 to fund the US 231 Elevated Water Tank project. The purpose of this project is to increase storage and improve water quality for the existing customers in a high growth area of Allen County.

This project will replace the existing Lambert Road ground storage with a 500,000 gallon elevated tank to address the short fill cycles and the lack of adequate storage in this part of the ACWD distribution system. The existing Lambert Road storage tank will be removed from operation and ultimately be decommissioned. In addition to the new elevated tank, approximately 9,000 LF of 8 inch PVC water line will be run along Bowling Green Road to transport water pumped via the Halfway Booster Station to the Walker Chapel Pressure Zone. The Halfway Booster Station will have some internal piping switched out for installation of a new master meter to aid in the District’s water loss program.

The District is a Kentucky Public Service Commission regulated utility, purchasing 100% of its water supply from the City of Glasgow and the City of Scottsville to serve approximately 5,500 retail customers within Allen County and providing wholesale water to the City of Scottsville.

II. PROJECT BUDGET

	<u>Total</u>
Legal Expenses	\$ 3,760
Engineering Fees – Design	105,000
Engineering Fees – Construction	45,000
Engineering Fees – Inspection	89,000
Engineering Fees – Other	32,056
Construction	1,978,400
Contingency	196,784
Total	\$ 2,450,000

III. PROJECT FUNDING

	Amount	%
KIA Fund F Loan	\$ 2,450,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 2,450,000
Principal Forgiveness	0
Amortized Loan Amount	\$ 2,450,000
Interest Rate	2.00%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 149,232
Administrative Fee (0.25%)	6,125
Annual Debt Service	\$ 155,357

V. PROJECT SCHEDULE

Bid Opening	August 2019
Construction Start	October 2019
Construction Stop	August 2020

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Current
Residential	5,239
Commercial	281
Industrial	
Total	5,520

B) Rates

	Current	Prior
Date of Last Rate Increase	10/05/11	07/01/09
Minimum 2,000 Gallons	\$19.29	\$17.47
Next 3,000 Gallons	7.58	6.86
Next 5,000 Gallons	6.42	5.81
Cost for 4,000 gallons	\$42.03	\$38.05
Increase %	10.5%	
Affordability Index (Rate/MHI)	1.2%	1.1%

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 13,508 with a Median Household Income (MHI) of \$43,202. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2.00% interest rate with its median household income above 80% but below 100% of the state MHI.

Year	Population		County Unemployment	
	County	% Change	Date	Rate
1980	14,128		June 2005	6.8%
1990	14,628	3.5%	June 2010	12.3%
2000	17,800	21.7%	June 2015	5.2%
2010	19,956	12.1%	June 2018	4.2%
Current	20,421	2.3%		
Cumulative %		44.5%		

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 does not qualify for additional subsidization.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended January 1, 2016 through December 31, 2018. In 2018, the District spent approximately \$245,000 in repair and maintenance work for the Highway 98 tank. As this is a non-recurring expense, the amount has been deducted from the operating expenses to provide a more realistic projection. The non-cash impact of GASB 68 – Accounting and Financial Reporting for Pensions has been removed from the operating expenses. GASB 75 – Other Postemployment Benefits is not applicable to the District's financial reporting. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Water revenues decreased 4.4% from \$2.61 million in 2016 to \$2.50 million in 2018 due to an exceptionally wet year and the District's efforts to conserve water consumption. Operating expenses increased 13.3% from \$2.08 million to \$2.36 million during the same period as a result of increased Transmission and Distribution costs for the Highway 98 tank repair and maintenance. The debt coverage ratio was 1.9, 2.0 and 0.8 for 2016, 2017, and 2018 respectively.

The balance sheet reflects a current ratio of 7.3, debt to equity ratio of 0.4, 35.2 days sales in accounts receivable, and 1.0 months of operating expenses in unrestricted cash.

PROJECTIONS

Projections are based on the following assumptions:

- 1) The metered water sales will go up 7% in 2021 as required by the special condition assigned to this loan.
- 2) Expenses will increase 2% each year for inflation.
- 3) 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 F loan.

REPLACEMENT RESERVE

The replacement reserve will be 5% (\$122,000 total) of the final amount borrowed to be funded annually (\$6,100 yearly) each December 1 for 20 years and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
Water Revenue Bonds Series 2006	\$ 1,407,000	2046
Water Revenue Bonds Series 2012	749,000	2052
KY Rural Water Finance Corp Loan	100,000	2022
KY Rural Water Finance Corp Loan	<u>2,415,000</u>	2038
Total	\$ 4,671,000	

XI. CONTACTS

Legal Applicant	
Name	Allen County Water District
Address	PO Box 58 Scottsville, KY 42164
County	Allen
Authorized Official	Wayne Jackson, Chairman
Phone	(270) 622-3040
Email	wjackson@nctc.com

Project Contact - Applicant	
Name	Josh Reynolds
Organization	Allen County Water District
Address	PO Box 58 Scottsville, KY 42164
Phone	(270) 622-3040
Email	joshreynoldsacwd@outlook.com

Project Administrator / Consulting Engineer	
Name	Matthew Ray Curtis
Organization	Bluegrass Engineering, PLLC
Address	222 East Main Street, Suite 1 Georgetown, KY 40324
Phone	(502) 370-6551
Email	mcurtis@bluegrassengineering.net

XII. RECOMMENDATIONS

KIA staff recommends approval of the loan with the standard conditions and one special condition:

1. The District shall pass a resolution by September 1, 2019 to increase water rates. The new rates shall reflect a 7% increase or \$160,000 additional revenues, effective January 1, 2021.

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

	<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	4,978,056	4,444,278	3,755,404	3,784,067	3,807,021	3,841,014	3,853,787	3,866,690
Other Assets	13,490,707	13,823,464	14,024,929	13,622,500	15,647,232	15,210,974	14,689,833	14,169,213
Total	18,468,763	18,267,742	17,780,333	17,406,567	19,454,253	19,051,989	18,543,621	18,035,903
Liabilities & Equity								
Current Liabilities	439,307	430,932	511,724	520,201	584,451	653,701	631,701	644,801
Long Term Liabilities	5,193,875	5,009,046	4,923,566	4,674,352	6,890,602	6,589,102	6,311,102	6,021,602
Total Liabilities	5,633,182	5,439,978	5,435,290	5,194,553	7,475,053	7,242,803	6,942,803	6,666,403
Net Assets	12,835,581	12,827,764	12,345,043	12,212,014	11,979,200	11,809,186	11,600,818	11,369,500
Cash Flow								
Revenues	2,613,861	2,518,345	2,496,876	2,496,876	2,496,876	2,657,899	2,657,899	2,657,899
Operating Expenses	2,079,954	1,912,877	2,358,288	2,144,668	2,171,775	2,205,525	2,233,728	2,262,495
Other Income	135,025	94,870	130,656	130,656	130,656	130,656	130,656	130,656
Cash Flow Before Debt Service	668,932	700,338	269,244	482,864	455,757	583,030	554,827	526,060
Debt Service								
Existing Debt Service	343,740	342,090	343,740	339,548	340,989	335,384	335,606	306,189
Proposed KIA Loan	0	0	0	0	0	77,679	155,357	155,357
Total Debt Service	343,740	342,090	343,740	339,548	340,989	413,063	490,963	461,546
Cash Flow After Debt Service	325,192	358,248	(74,496)	143,316	114,768	169,968	63,864	64,514
Ratios								
Current Ratio	11.3	10.3	7.3	7.3	6.5	5.9	6.1	6.0
Debt to Equity	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6
Days Sales in Accounts Receivable	47.1	37.0	35.2	35.2	35.2	33.0	33.0	33.0
Months Operating Expenses in Unrestricted Cash	2.1	4.0	1.0	1.3	1.4	1.6	1.6	1.7
Debt Coverage Ratio	1.9	2.0	0.8	1.4	1.3	1.4	1.1	1.1