

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

- **Fund A Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
A98-04A	Louisville & Jefferson County Metropolitan Sewer District (Crestwood Wastewater System Assumption)	\$ 1,103,340	Jefferson
A19-050	City of Richmond	\$ 10,142,000	Madison

- **Fund B Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
B19-009	City of Hickman	\$ 397,000	Fulton

- **Fund F Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
F19-042	City of Danville	\$ 4,918,257	Boyle

<b>EXECUTIVE SUMMARY</b>		Reviewer	Ashley Adams	
<b>KENTUCKY INFRASTRUCTURE AUTHORITY</b>		Date	April 4, 2019	
<b>FUND A, FEDERALLY ASSISTED WASTEWATER REVOLVING LOAN FUND</b>		KIA Loan Number	A98-04A	
BORROWER	LOUISVILLE & JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT JEFFERSON COUNTY			
BRIEF DESCRIPTION				
Louisville Metropolitan Sanitation District (MSD) has a pending acquisition for the City of Crestwood's sanitary sewer assets and customers. One KIA Fund A wastewater loan will be assumed by MSD as part of the transaction. This acquisition is pending Attorney General approval which is expected in time for a potential April 30, 2019 closing date.				
PROJECT FINANCING		PROJECT BUDGET		
A98-04 Assumption	\$1,103,340	Loan Assumption	\$1,103,340	
TOTAL	\$1,103,340	TOTAL	\$1,103,340	
REPAYMENT	Rate	3.80%	Est. Annual Payment	\$243,466
	Term	2.5 Years	1st Payment	Jun-19
PROFESSIONAL SERVICES	Engineer	N/A		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE				
	Estimated Closing	Apr-19		
DEBT PER CUSTOMER	Existing	\$8,967		
	Proposed	\$8,761		
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	1,700	\$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	136,329	80,738	1.6
Projected 2020	233,413	140,891	92,522	1.7
Projected 2021	251,000	146,080	104,920	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: April 4, 2019  
 Loan Number: A98-04A

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

**I. DESCRIPTION**

Louisville and Jefferson County Metropolitan Sewer District (“MSD”) plans to assume a Fund A wastewater loan (A98-04) from the City of Crestwood in Oldham County as part of MSD’s acquisition of the Crestwood wastewater system and all of its assets. The original loan to Crestwood included a sewer collection system for the residents of Crestwood and Park Lake which transported waste to MSD’s Hite Creek Plant. The original loan was approved by the KIA Board on April 28<sup>th</sup>, 1998. MSD entered into an Interlocal Agreement with the City of Crestwood on September 3, 1996. Since then MSD has provided operational and maintenance services to Crestwood for wastewater collection and treatment, responded to customer calls, provided billing services, and managed regulatory programs such as the Consent Decree. Kentucky Revised Statutes changed in 2018 allowing for an acquisition of the Crestwood system by MSD. This acquisition is attractive to both parties in order to continue a high level of service while maintaining a competitive billing rate for existing Crestwood customers. For MSD, the acquisition gives MSD the opportunity to provide wastewater services to potential development in the area and achieve greater economies of scale.

**II. ASSUMED DEBT FROM CRESTWOOD**

	<b>Total</b>
KIA Loan (A98-04)	\$ 1,103,340
<b>Total</b>	<b>\$ 1,103,340</b>

**III. CUSTOMER COMPOSITION AND RATE STRUCTURE**

**A) Customers**

	<b>MSD</b>	<b>Crestwood</b>	<b>MSD /Crestwood Combined</b>
Residential	233,775	1,549	235,324
Commercial	22,332	151	22,483
Industrial	430	0	430
<b>Total</b>	<b>258,237</b>	<b>1,700</b>	<b>258,237</b>

## B) Rates

<b>MSD Rates</b>	<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
<hr/>		
<b>Cost for 4,000 gallons</b>	<b>\$ 45.82</b>	<b>\$ 42.85</b>
Increase %	6.9%	
Affordability Index (Rate/MHI)	1.2%	
<b>Crestwood Rates</b>	<u>Current</u>	
Date of Last Rate Increase	08/01/18	
Minimum	\$ 15.75	
Per 1,000 Gallons	4.30	
Consent Decree Surcharge	12.87	
Debt Service Surcharge	12.14	
<hr/>		
<b>Cost for 4,000 gallons</b>	<b>\$ 57.96</b>	

When the transfer of assets is complete, Crestwood customers will transition to the normal MSD rate structure above resulting in savings for the customer as the existing debt service surcharge for Crestwood customers will be eliminated.

## IV. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for Louisville MSD 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 recently approved KIA loans A19-015 and A19-028 (total of \$25,870,000).
- 4) MSD will make the June 1, 2019 debt service payment for the existing KIA loan.
- 5) MSD will pay off an existing loan with PNC bank held by Crestwood upon execution of the acquisition. Payoff is currently estimated at \$750,000 and has been included in the forecast.
- 6) Debt service coverage is 1.6 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

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.

**V. DEBT OBLIGATIONS**

*Amounts in thousands*

	<b>Outstanding</b>	<b>Maturity</b>
<b><u>Senior Debt</u></b>		
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
<b><u>Subordinated Debt</u></b>		
BAN Series 2018A	226,340	2019
KIA Loan (A209-41 ARRA)	1,871	2032
<b>Total</b>	<b>\$ 2,224,941</b>	

**VI. CONTACTS**

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

**VII. RECOMMENDATIONS**

KIA staff recommends approval of the loan assumption.

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

DOLLARS IN THOUSANDS

	Audited 2016	Audited 2017	Audited 2018	Projected 2019	Projected 2020	Projected 2021	Projected 2022	Projected 2023
<b>Balance Sheet</b>								
<b>Assets</b>								
Current Assets	124,049	125,214	139,927	149,769	160,921	173,413	187,339	202,965
Other Assets	2,775,732	2,934,908	3,164,908	3,124,538	3,159,504	3,162,618	3,163,902	3,179,585
Total	<u>2,899,781</u>	<u>3,060,122</u>	<u>3,304,835</u>	<u>3,274,307</u>	<u>3,320,425</u>	<u>3,336,031</u>	<u>3,351,241</u>	<u>3,382,549</u>
<b>Liabilities &amp; Equity</b>								
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	2,291,035	2,249,750	2,205,846	2,147,445	2,089,045
Total Liabilities	<u>2,299,201</u>	<u>2,391,634</u>	<u>2,596,161</u>	<u>2,429,624</u>	<u>2,391,686</u>	<u>2,351,701</u>	<u>2,296,262</u>	<u>2,239,261</u>
Net Assets	<u>600,580</u>	<u>668,488</u>	<u>708,674</u>	<u>844,683</u>	<u>928,739</u>	<u>984,330</u>	<u>1,054,979</u>	<u>1,143,288</u>
<b>Cash Flow</b>								
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	<u>174,026</u>	<u>186,270</u>	<u>201,878</u>	<u>217,067</u>	<u>233,413</u>	<u>251,000</u>	<u>269,766</u>	<u>290,112</u>
<b>Debt Service</b>								
Existing Debt Service	115,735	122,034	124,787	136,096	140,424	145,613	152,507	156,855
Crestwood Assumption A98-04A	0	0	0	233	467	467	0	0
Crestwood PNC Bank Loan Payoff	0	0	0	750	0	0	0	0
Total Debt Service	<u>115,735</u>	<u>122,034</u>	<u>124,787</u>	<u>136,329</u>	<u>140,891</u>	<u>146,080</u>	<u>152,507</u>	<u>156,855</u>
Cash Flow After Debt Service	<u>58,291</u>	<u>64,236</u>	<u>77,091</u>	<u>80,738</u>	<u>92,522</u>	<u>104,920</u>	<u>117,259</u>	<u>133,257</u>
<b>Ratios</b>								
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	2.2	2.0
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	10.8
Debt Coverage Ratio	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8

<b>EXECUTIVE SUMMARY</b> <b>KENTUCKY INFRASTRUCTURE AUTHORITY</b> <b>FUND A, FEDERALLY ASSISTED WASTEWATER</b> <b>REVOLVING LOAN FUND</b>		Reviewer Date KIA Loan Number WRIS Number	Ashley Adams April 4, 2019 A19-050 SX21151054	
BORROWER	CITY OF RICHMOND MADISON COUNTY			
BRIEF DESCRIPTION				
The project will address capacity issues within the Silver Creek sewer shed and three sanitary sewer overflows (SSO's) within the TC-15 sub-basin of the Silver Creek sewer shed as well as provide additional capacity for future growth. This will be accomplished by constructing a new 1,500 gpm pump station at Silver Creek WWTP and pumping flows through 14,500 lf of 16 – inch PVC force main to 3,500 lf of 30 – inch and 11,500 lf of 24 – inch gravity sewer. This new gravity sewer will collect flows from 2,550 lf of 12 – inch and 1,500 lf of 15 – inch gravity sewers within the TC-15 sewer basin and discharge flows to the Wilgreen pump station. A new parallel 12 – inch force main will increase capacity at the pump station to handle the new flows from Taylor Fork.				
PROJECT FINANCING		PROJECT BUDGET		
Fund A Loan	\$10,142,000	RD Fee %	Actual %	
		Administrative Expenses	\$25,000	
		Legal Expenses	50,000	
		Land, Easements	100,000	
		Planning	50,000	
		Eng - Design / Const	6.4% 5.9% 535,000	
		Eng - Insp	3.0% 2.7% 245,000	
		Eng - Other	70,000	
		Construction	8,287,000	
		Contingency	780,000	
TOTAL	\$10,142,000	TOTAL	\$10,142,000	
REPAYMENT	Rate Term	0.50% 20 Years	Est. Annual Payment 1st Payment 6 Mo. after first draw \$517,756	
PROFESSIONAL SERVICES	Engineer Bond Counsel	Bell Engineering Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening Construction Start Construction Stop	Jul-19 Aug-19 Aug-20		
DEBT PER CUSTOMER	Existing Proposed	\$5,436 \$5,020		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES	Current Additional	<u>Users</u> 11,778 0	<u>Avg. Bill</u> \$45.24 (for 4,000 gallons) \$45.24 (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	10,389,166	4,379,585	6,009,581	2.4
Audited 2017	9,991,008	8,051,335	1,939,673	1.2
Audited 2018	10,337,798	5,783,370	4,554,428	1.8
Projected 2019	9,364,117	5,780,849	3,583,268	1.6
Projected 2020	9,559,216	5,766,622	3,792,594	1.7
Projected 2021	9,807,817	5,884,358	3,923,459	1.7
Projected 2022	9,990,290	5,945,455	4,044,835	1.7
Projected 2023	10,176,107	5,935,787	4,240,320	1.7

Reviewer: Ashley Adams  
Date: April 4, 2019  
Loan Number: A19-050

**KENTUCKY INFRASTRUCTURE AUTHORITY  
WASTEWATER REVOLVING LOAN FUND (FUND A)  
CITY OF RICHMOND, MADISON COUNTY  
PROJECT REVIEW  
SX21151054**

**I. PROJECT DESCRIPTION**

The City of Richmond is requesting a Fund A loan in the amount of \$10,142,000 for the Silver Creek Outfall Sewer Phase 1 project. The purpose of this project is to eliminate known overflows and provide additional capacity in the collection system for future growth. In 2009, soon after the construction of the Otter Creek Waste Water Treatment Plant (WWTP), two existing WWTP's (Dreaming Creek and Tates Creek) were taken off-line with flows directed to this new large WWTP. The other large WWTP (Silver Creek), was built in the summer of 1999 to treat waste generated on the south side of Richmond, primarily the area along Duncannon Road and the new industrial park. This project will eliminate this Kentucky Pollutant Discharge Elimination System (KPDES) permit and convey flows through the existing conveyance system to the Otter Creek WWTP.

**Division A - Silver Creek WWTP to Existing Pavilion Force Main**

The existing Silver Creek WWTP will be used as an equalization basin to store wet weather flows. A new 1,500 gallon per minute (gpm) pump station will be built at the Silver Creek WWTP site along with 14,500 linear feet (lf) of 16 - inch force main that will discharge into an existing 14 - inch force main for approximately 10,500 lf to a point of discharge at the existing Pavilion pump station. The Pavilion pump station will be de-commissioned and all flows will be diverted to the new Taylor Fork gravity Sewer (Division B).

**Division B – Taylor Fork Gravity Sewer**

Flows from the Silver Creek and Pavilion pump stations will be diverted to approximately 3,500 lf of 30 inch, 11,500 lf of 24 inch gravity sewer and approximately 49 manholes along Taylor Fork. This line will discharge into the existing Wilgreen pump station on the west side of Interstate 75.

**Division C – TC-15 Collector Sewers**

The TC15 drainage basin of the Richmond Utilities Sanitary Sewer Collection System is subject to frequent wet weather induced overflows at three primary locations: TC15-M4- 11, TC15-M8-18, and TC15-M10-3. This division of the project will replace

approximately 1,500 lf of 15 inch and 2,550 lf of 12 inch gravity sewer along with 25 manhole replacements.

Division D – Wilgreen Parallel Force Main

The existing Wilgreen pump station is capable of pumping a peak flow of approximately 2,500 gpm through the existing 12 inch force main. This project will extend a second 12 inch force main parallel to the existing force main for approximately 4,900 lf. The new force main will add approximately 1,100 gpm of peak capacity to the Wilgreen pump station for a total peak flow of 3,600 gpm.

Richmond Water, Gas, and Sewerage Works provides sanitary sewer service to almost 12,000 residential, commercial, and industrial customers in Madison County.

**II. PROJECT BUDGET**

	<u>Total</u>
Administrative Expenses	\$ 25,000
Legal Expenses	50,000
Land, Easements	100,000
Planning	50,000
Engineering Fees - Design	385,000
Engineering Fees - Construction	150,000
Engineering Fees - Inspection	245,000
Engineering Fees - Other	70,000
Construction	8,287,000
Contingency	780,000
<b>Total</b>	<b>\$ 10,142,000</b>

**III. PROJECT FUNDING**

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 10,142,000	100%
<b>Total</b>	<b>\$ 10,142,000</b>	<b>100%</b>

**IV. KIA DEBT SERVICE**

Construction Loan	\$ 10,142,000
Less: Principal Forgiveness	660,000
Amortized Loan Amount	\$ 9,482,000
Interest Rate	0.50%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 498,792
Administrative Fee (0.20%)	18,964
<b>Total Estimated Annual Debt Service</b>	<b>\$ 517,756</b>

**V. PROJECT SCHEDULE**

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

**VI. CUSTOMER COMPOSITION AND RATE STRUCTURE**

**A) Customers**

	<b>Current</b>
Residential	10,586
Commercial	1,167
Industrial	25
<b>Total</b>	<b>11,778</b>

**B) Rates**

	<b>Inside City</b>		<b>Outside City</b>	
	Current	Prior	Current	Prior
<b>Sewer</b>				
Date of Last Rate Increase	07/01/18	07/01/17	07/01/18	07/01/17
First 300 CF (min. bill)	\$26.51	\$25.96	\$53.03	\$51.94
Next 400 CF (per 100 CF)	7.98	7.82	15.96	15.63
Next 5,000 CF (per 100 CF)	7.21	7.06	14.42	14.15
Next 5,000 CF (per 100 CF)	6.45	6.32	12.85	12.59
<b>Cost for 4,000 gallons</b>	<b>\$45.24</b>	<b>\$44.32</b>	<b>\$90.49</b>	<b>\$88.63</b>
Increase %	2.1%		2.1%	
Affordability Index (Rate/MHI)	1.6%		3.3%	
<b>Water</b>				
Date of Last Rate Increase	07/01/18	07/01/17	07/01/18	07/01/17
First 300 CF (min. bill)	\$11.12	\$10.89	\$14.07	\$13.78
Next 400 CF (per 100 CF)	3.31	3.24	4.18	4.10
Next 5,000 CF (per 100 CF)	3.27	3.20	3.80	3.72
Next 5,000 CF (per 100 CF)	2.46	2.41	3.17	3.10
<b>Cost for 4,000 gallons</b>	<b>\$18.89</b>	<b>\$18.49</b>	<b>\$23.88</b>	<b>\$23.40</b>
Increase %	2.1%		2.0%	
Affordability Index (Rate/MHI)	0.7%		0.9%	

The Utility adjusts both water and sewer rates annually for inflation based on the Consumer Price Index for all Urban Consumers (CPI-U).

## VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 32,243 with a Median Household Income (MHI) of \$34,112. The median household income for the Commonwealth is \$44,811. The project will qualify for a 0.50% interest rate based on MHI.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	21,705		53,352		June 2005	5.6%
1990	21,155	-2.5%	57,508	7.8%	June 2010	8.6%
2000	27,152	28.3%	70,872	23.2%	June 2015	4.9%
2010	31,364	15.5%	82,916	17.0%	June 2018	4.9%
Current	33,583	7.1%	87,324	5.3%		
Cumulative %		54.7%		63.7%		

## 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 approximately 6.5% of the assistance amount, not to exceed \$660,000 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 Richmond Water, Gas, and Sewerage Works the years ended June 30, 2016 through June 30, 2018. The balance sheet and income statement include water, sewer, and gas operations. 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 expense totals. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

### HISTORY

Total revenues for water, sewer, and gas increased 5% from \$19.2 million in 2016 to \$20.1 million in 2018 while total operating expenses increased 11% from \$9.8 million to \$10.9 million during the same time period. Sewer revenues increased 1% from \$6.9

million to \$7.1 million from 2016-2018 and sewer expenses increased 9% from \$3.5 million to \$3.8 million. Water revenues increased 3% from \$6.9 million to \$7.1 million and water expenses increased 22% from \$3.8 million to \$4.6 million during the same time period. Operating expense increases in the respective funds are primarily attributed to changes in pension and benefit reporting requirements. Gas revenues and expenses moved in tandem with both increasing 22% from 2016-2018 as gas is mostly a pass-through service to customers of the Utility.

The 2018 balance sheet reflects a 2.0 current ratio, a 0.9 debt to equity ratio, 56.2 days sales in accounts receivable and 11.2 months operating expenses in unrestricted cash. The debt coverage ratio from 2016-2018 was 2.4, 1.2, and 1.8, respectively.

## PROJECTIONS

Projections are based on the following assumptions:

- 1) Water and sewer revenues will increase approximately 2% annually for both growth and inflation adjustments via the City’s CPI clause.
- 2) Expenses will increase 2% annually for inflation.
- 3) Debt service coverage is 1.7 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 A loan.

## REPLACEMENT RESERVE

The replacement reserve will be 5% (\$508,000 total) of the final amount borrowed (prior to principal forgiveness, if any) to be funded annually (\$25,400 yearly) each December 1 for 20 years and maintained for the life of the loan.

## X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
2010 B Revenue Bonds	\$ 637,167	2021
2010 Revenue Bonds	1,495,000	2030
2013 Revenue Bonds	4,180,000	2025
2016 Revenue Bonds	2,025,000	2027
KLC Loan	140,000	2021
KIA Loan (F05-02)	4,591,525	2028
KIA Loan (F07-03)	2,199,385	2028
KIA Loan (A07-07)	48,032,193	2033
KIA Loan (A209-30)	38,809	2030
KIA Loan (C15-002)	909,877	2036
<b>Total</b>	<b>\$ 64,248,956</b>	

**XI. CONTACTS**

<b>Legal Applicant</b>	
Entity Name	City of Richmond
Authorized Official	Robert Blythe (Mayor)
County	Madison
Email	rblythe@richmond.ky.us
Phone	859-661-0289
Address	PO Box 250 Richmond, KY 40475

<b>Applicant Contact</b>	
Name	Scott Althaus
Organization	Richmond Water, Gas, and Sewerage Works
Email	salthaus@richmondutilities.com
Phone	859-623-2323
Address	300 Hallie Irvine St Richmond, KY 40476

<b>Project Administrator / Consulting Engineer</b>	
Name	David Schrader
Organization	Bell Engineering
Email	dschrader@hkbell.com
Phone	859-278-5412
Address	2480 Fortune Drive, Suite 350 Lexington, KY 40509

**XII. RECOMMENDATIONS**

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

**CITY OF RICHMOND  
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>
<b>Balance Sheet</b>								
<b>Assets</b>								
Current Assets	10,875,174	10,594,133	12,415,706	12,826,290	13,258,849	13,705,495	14,165,379	14,645,911
Other Assets	147,672,087	150,004,140	148,839,182	143,095,600	145,955,261	148,679,150	146,441,277	144,379,341
<b>Total</b>	<b>158,547,261</b>	<b>160,598,273</b>	<b>161,254,888</b>	<b>155,921,890</b>	<b>159,214,110</b>	<b>162,384,645</b>	<b>160,606,656</b>	<b>159,025,252</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	5,906,381	6,093,907	6,285,982	6,296,657	6,377,619	6,334,268	6,230,017	6,308,886
Long Term Liabilities	73,583,320	72,779,376	70,717,849	54,452,180	54,332,224	54,321,719	49,635,765	44,882,442
<b>Total Liabilities</b>	<b>79,489,701</b>	<b>78,873,283</b>	<b>77,003,831</b>	<b>60,748,837</b>	<b>60,709,843</b>	<b>60,655,987</b>	<b>55,865,782</b>	<b>51,191,328</b>
<b>Net Assets</b>	<b>79,057,560</b>	<b>81,724,990</b>	<b>84,251,057</b>	<b>95,173,053</b>	<b>98,504,267</b>	<b>101,728,658</b>	<b>104,740,874</b>	<b>107,833,924</b>
<b>Cash Flow</b>								
Revenues	19,209,269	19,257,955	20,106,913	20,445,934	20,791,736	21,144,454	21,504,226	21,871,194
Operating Expenses	9,831,847	10,177,590	10,873,618	12,186,320	12,337,023	12,441,140	12,618,439	12,799,590
Other Income	1,011,744	910,643	1,104,503	1,104,503	1,104,503	1,104,503	1,104,503	1,104,503
<b>Cash Flow Before Debt Service</b>	<b>10,389,166</b>	<b>9,991,008</b>	<b>10,337,798</b>	<b>9,364,117</b>	<b>9,559,216</b>	<b>9,807,817</b>	<b>9,990,290</b>	<b>10,176,107</b>
<b>Debt Service</b>								
Existing Debt Service	4,379,585	8,051,335	5,783,370	5,780,849	5,766,622	5,625,480	5,427,699	5,418,031
Proposed KIA Loan	0	0	0	0	0	258,878	517,756	517,756
<b>Total Debt Service</b>	<b>4,379,585</b>	<b>8,051,335</b>	<b>5,783,370</b>	<b>5,780,849</b>	<b>5,766,622</b>	<b>5,884,358</b>	<b>5,945,455</b>	<b>5,935,787</b>
<b>Cash Flow After Debt Service</b>	<b>6,009,581</b>	<b>1,939,673</b>	<b>4,554,428</b>	<b>3,583,268</b>	<b>3,792,594</b>	<b>3,923,459</b>	<b>4,044,835</b>	<b>4,240,320</b>
<b>Ratios</b>								
Current Ratio	1.8	1.7	2.0	2.0	2.1	2.2	2.3	2.3
Debt to Equity	1.0	0.9	0.9	0.6	0.6	0.6	0.5	0.5
Days Sales in Accounts Receivable	59.5	59.2	56.2	56.2	56.2	56.2	56.2	56.2
Months Operating Expenses in Unrestricted Cash	11.6	10.7	11.2	11.4	11.7	12.0	12.3	12.6
Debt Coverage Ratio	2.4	1.2	1.8	1.6	1.7	1.7	1.7	1.7

<b>EXECUTIVE SUMMARY</b>		Reviewer	Meili Sun	
<b>KENTUCKY INFRASTRUCTURE AUTHORITY</b>		Date	April 4, 2019	
<b>FUND B, INFRASTRUCTURE</b>		KIA Loan Number	B19-009	
<b>REVOLVING LOAN FUND</b>		WRIS Number	WX21075020	
BORROWER	CITY OF HICKMAN FULTON COUNTY			
BRIEF DESCRIPTION				
Install piping and pumps to utilize the sediment and flocculation basins in the old water treatment plant to add detention time prior to the filters for iron and manganese removal. Repair and/or replace the aerators in the existing plant to improve oxidation of iron and manganese.				
PROJECT FINANCING		PROJECT BUDGET		
Fund B Loan	\$397,000	RD Fee %	Actual %	
		Eng - Design / Const	10.9%	9.8%
		Eng - Insp	8.3%	1.4%
		Construction		308,350
		Contingency		48,650
TOTAL	\$397,000	TOTAL		\$397,000
REPAYMENT	Rate	0.50%	Est. Annual Payment	\$21,678
	Term	20 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Bell Engineering		
	Bond Counsel	Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Oct-18		
	Construction Start	Jan-19		
	Construction Stop	Jul-19		
DEBT PER CUSTOMER	Existing	\$75		
	Proposed	\$1,383		
OTHER DEBT	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	1,310	\$21.50	(for 4,000 gallons)
	Additional	0	\$21.50	(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 2016	124,713	1,093	123,620	114.1
Audited 2017	101,547	88,155	13,392	1.2
Audited 2018	100,839	115,958	(15,119)	0.9
Projected 2019	88,181	189,237	(101,056)	0.5
Projected 2020	132,270	113,358	18,912	1.2
Projected 2021	134,750	116,883	17,867	1.2
Projected 2022	137,280	122,119	15,161	1.1
Projected 2023	139,860	127,187	12,673	1.1

Reviewer: Meili Sun  
Date: April 4, 2019  
Loan Number: B19-009

**KENTUCKY INFRASTRUCTURE AUTHORITY  
INFRASTRUCTURE REVOLVING LOAN FUND (FUND B)  
CITY OF HICKMAN, FULTON COUNTY  
PROJECT REVIEW  
WX21075020**

**I. PROJECT DESCRIPTION**

The City of Hickman is requesting a Fund B loan in the amount of \$397,000 for the Water Treatment Plant Modification project. This project will repurpose the currently idle old plant with its basins sitting empty. The scope of work includes installing piping and pumps to utilize the sediment and flocculation basins in the old water treatment plant to add detention time prior to the filters for iron and manganese removal. It will also repair and/or replace the aerators in the existing plant to improve oxidation of iron and manganese.

The purpose of this project is to improve drinking water quality for approximately 1,300 customers while addressing the requirements of an agreed order issued by the Division of Water.

**II. PROJECT BUDGET**

	<u>Total</u>
Engineering Fees – Design	\$ 28,000
Engineering Fees – Construction	7,000
Engineering Fees – Inspection	5,000
Construction	308,350
Contingency*	48,650
<b>Total</b>	<b>\$ 397,000</b>

\* Contingency is more than 10% of the construction cost in anticipation of additional work required by the agreed order.

**III. PROJECT FUNDING**

	<u>Amount</u>	<u>%</u>
<b>KIA Fund B Loan</b>	<b>\$ 397,000</b>	<b>100%</b>

#### IV. KIA DEBT SERVICE

Amortized Loan Amount	\$	397,000
Interest Rate		0.50%
Loan Term (Years)		20
Estimated Annual Debt Service	\$	20,884
Administrative Fee (0.20%)		794
<b>Total Estimated Annual Debt Service</b>	<b>\$</b>	<b>21,678</b>

#### V. PROJECT SCHEDULE

Bid Opening	October 2018
Construction Start	January 2019
Construction Stop	July 2019

#### VI. RATE STRUCTURE

##### A. Customers

	Current
Residential	1,193
Commercial	114
Industrial	3
Total	1,310

##### B. Rates

	Water Inside City		Water Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	07/01/17	08/15/13	07/01/17	08/15/13
First 2,000 Gallons	\$12.50	\$12.00	\$19.75	\$19.00
Next 8,000 Gallons	4.50	4.50	6.00	6.00
Next 15,000 Gallons	4.00	4.00	4.50	4.50
Cost for 4,000 gallons	\$21.50	\$21.00	\$31.75	\$31.00
Increase %	2.4%		2.4%	
Affordability Index (Rate/MHI)	1.2%		1.8%	

Date of Last Rate Increase	Sewer	
	Current	Prior
	07/01/17	08/15/13
First 2,000 Gallons Residential	\$14.90	\$14.40
Over 2,000 Gallons Residential	4.50	4.50
Cost for 4,000 gallons Residential	\$23.90	\$23.40
Increase %	2.1%	
Affordability Index (Rate/MHI)	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 was 2,868 with a Median Household Income (MHI) of \$20,801. The median household income for the Commonwealth was \$44,811. The project's median household income qualifies for a 0.50% interest rate as it is below 80% of the State MHI.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	2,894		6,065		June 2005	7.3%
1990	2,689	-7.1%	5,566	-8.2%	June 2010	12.2%
2000	2,560	-4.8%	5,262	-5.5%	June 2015	7.9%
2010	2,395	-6.4%	4,902	-6.8%	June 2018	6.0%
Current	2,321	-3.1%	6,323	29.0%		
Cumulative %		-19.8%		4.3%		

## VIII. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ended June 30, 2016 through June 30, 2018. The City's Enterprise Funds account for Gas, Water, and Sewer operations. The Gas portion has been extracted from the Enterprise Funds and therefore is not part of this analysis. The non-cash impact of GASB 68 - Accounting and Financial Reporting for Pensions and GASB 75 - Other Postemployment Benefit has been removed from the operating expenses.

### HISTORY

Combined water and sewer revenues declined 3.8% from \$762,943 in 2016 to \$733,524 in 2018 due to population loss while operating expenses decreased less than 1% from \$638,450 to \$632,909 during the same period. The debt coverage ratio was 114.1 in 2016 due to the absence of existing debt and declined to 1.2 in 2016, and 0.9 in 2018 after debt service began.

The balance sheet reflects a current ratio of 2.6, debt to equity ratio of 0.5, 28.8 days sales in accounts receivable, and 4.1 months of operating expenses in unrestricted cash.

**PROJECTIONS**

Projections are based on the following assumptions:

- 1) Total water and sewer revenues will go up 8% through rate increase in 2020 as required by the Special Condition.
- 2) From 2021 on, an estimated 2% increase will be mandatorily applied to both water and sewer rates each year based on the Cost of Living Adjustment, subject to annual KIA administrative compliance monitoring.
- 3) Operating expenses will increase 2% for general inflation.
- 4) The City is seeking funding assistance from RD for the WWTP Improvement (Phase II) & Sanitary Sewer Rehab project. The potential increase of debt obligation is not included in the projections due to the application's pending status. If the debt service increases after RD funding is committed, RD will set new rates to ensure that the City can afford the additional debt.
- 5) Debt service coverage is 1.2 in 2021 after the special condition is met.

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% (\$20,000 total) of the final amount borrowed to be funded annually (\$1,000 yearly) each December 1 for 20 years and maintained for the life of the loan.

**IX. DEBT OBLIGATIONS**

	<u>Outstanding</u>	<u>Maturity</u>
Kentucky Bond Corporation*	\$ 2,609,167	2037
Citizens Deposit Bank LOC	98,270	2019
<b>Total</b>	<b>\$ 2,707,437</b>	

\* Split among 3 funds – 12% General, 62% Water, and 26% Gas

**X. CONTACTS**

<b>Legal Applicant</b>	
Name	City of Hickman
Address	1812 South 7 <sup>th</sup> Street Hickman, KY 42050
County	Fulton
Authorized Official	David Heath Carlton
Phone	(270) 627-1821
Email	heathcarlton@hotmail.com

<b>Project Contact - Applicant</b>	
Name	Donna Haney
Organization	City of Hickman
Address	1812 South 7 <sup>th</sup> Street Hickman, KY 42050
Phone	(270) 236-2535
Email	hickman_haney@att.net

<b>Project Administrator / Engineer</b>	
Name	Robert Pickerill
Organization	Bell Engineering
Address	107 Forbes Dr, PO Box 661 Hopkinsville, KY 42240
Phone	(270) 886-5466
Email	bpickerill@hkbell.com

**XI. RECOMMENDATIONS**

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

1. The City shall pass an ordinance by May 31, 2019 to increase both water and sewer rates. The new rates shall raise additional \$58,000 or 8% of the total revenues, effective July 1, 2019.

**CITY OF HICKMAN  
FINANCIAL SUMMARY (JUNE 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>
<b>Balance Sheet</b>								
<b>Assets</b>								
Current Assets	219,334	209,062	272,698	171,679	195,191	214,258	230,719	244,692
Other Assets	5,635,041	6,541,080	6,426,080	6,449,202	6,207,705	5,956,283	5,704,861	5,453,439
<b>Total</b>	<b>5,854,375</b>	<b>6,750,142</b>	<b>6,698,778</b>	<b>6,620,881</b>	<b>6,402,896</b>	<b>6,170,541</b>	<b>5,935,580</b>	<b>5,698,131</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	1,476	128,959	105,136	98,546	121,921	127,157	132,175	134,546
Long Term Liabilities	622,279	1,761,012	1,991,159	2,250,758	2,135,703	2,015,412	1,890,103	1,762,423
<b>Total Liabilities</b>	<b>623,756</b>	<b>1,889,971</b>	<b>2,096,295</b>	<b>2,349,304</b>	<b>2,257,624</b>	<b>2,142,569</b>	<b>2,022,278</b>	<b>1,896,969</b>
<b>Net Assets</b>	<b>5,230,619</b>	<b>4,860,171</b>	<b>4,602,483</b>	<b>4,271,577</b>	<b>4,145,272</b>	<b>4,027,972</b>	<b>3,913,302</b>	<b>3,801,162</b>
<b>Cash Flow</b>								
Revenues	762,943	749,132	733,524	733,524	791,524	807,174	823,137	839,419
Operating Expenses	638,450	647,730	632,909	645,567	659,478	672,648	686,081	699,783
Other Income	220	145	224	224	224	224	224	224
<b>Cash Flow Before Debt Service</b>	<b>124,713</b>	<b>101,547</b>	<b>100,839</b>	<b>88,181</b>	<b>132,270</b>	<b>134,750</b>	<b>137,280</b>	<b>139,860</b>
<b>Debt Service</b>								
Existing Debt Service	1,093	88,155	115,958	189,237	91,680	95,205	100,441	105,509
Proposed KIA Loan	0	0	0	0	21,678	21,678	21,678	21,678
<b>Total Debt Service</b>	<b>1,093</b>	<b>88,155</b>	<b>115,958</b>	<b>189,237</b>	<b>113,358</b>	<b>116,883</b>	<b>122,119</b>	<b>127,187</b>
<b>Cash Flow After Debt Service</b>	<b>123,620</b>	<b>13,392</b>	<b>(15,119)</b>	<b>(101,056)</b>	<b>18,912</b>	<b>17,867</b>	<b>15,161</b>	<b>12,673</b>
<b>Ratios</b>								
Current Ratio	148.6	1.6	2.6	1.7	1.6	1.7	1.7	1.8
Debt to Equity	0.1	0.4	0.5	0.5	0.5	0.5	0.5	0.5
Days Sales in Accounts Receivable	27.5	28.8	28.8	28.8	28.8	28.8	28.8	28.8
Months Operating Expenses in Unrestricted Cash	3.0	2.8	4.1	2.1	2.4	2.7	2.9	3.1
Debt Coverage Ratio	114.1	1.2	0.9	0.5	1.2	1.2	1.1	1.1

<b>EXECUTIVE SUMMARY</b>		Reviewer	Meili Sun	
<b>KENTUCKY INFRASTRUCTURE AUTHORITY</b>		Date	April 4, 2019	
<b>FUND F, FEDERALLY ASSISTED DRINKING WATER</b>		KIA Loan Number	F19-042	
<b>REVOLVING LOAN FUND</b>		WRIS Number	WX21021010	
<b>BORROWER</b>		CITY OF DANVILLE BOYLE COUNTY		
<b>BRIEF DESCRIPTION</b>				
This project will replace the 100,000 gallon standpipe on the east side of Perryville with 750,000 gallon elevated tank. The current standpipe is outdated, undersized, and does not have adequate turnover. The elevated tank will provide additional storage to meet the current and future demands.				
<b>PROJECT FINANCING</b>		<b>PROJECT BUDGET</b>		
Fund F Loan	\$4,918,257	RD Fee %	Actual %	
		Administrative Expenses		\$15,000
		Legal Expenses		10,000
		Land, Easements		15,000
		Planning		10,000
		Eng - Design / Const	6.8%	4.2%
		Eng - Other		193,745
		Construction		25,000
		Contingency		4,240,512
				409,000
<b>TOTAL</b>	<b>\$4,918,257</b>	<b>TOTAL</b>		<b>\$4,918,257</b>
<b>REPAYMENT</b>	Rate	2.00%	Est. Annual Payment	\$311,873
	Term	20 Years	1st Payment	6 Mo. after first draw
<b>PROFESSIONAL SERVICES</b>	Engineer	HDR, Inc.		
	Bond Counsel	Dinsmore & Shohl, LLP		
<b>PROJECT SCHEDULE</b>	Bid Opening	Sep-19		
	Construction Start	Nov-19		
	Construction Stop	Nov-20		
<b>DEBT PER CUSTOMER</b>	Existing	\$3,662		
	Proposed	\$3,237		
<b>OTHER DEBT</b>	See Attached			
<b>RESIDENTIAL RATES</b>		<u>Users</u>	<u>Avg. Bill</u>	
	Current	11,121	\$19.84	(for 4,000 gallons)
	Additional	0	\$19.84	(for 4,000 gallons)
<b>REGIONAL COORDINATION</b>	This project is consistent with regional planning recommendations.			
<b>CASHFLOW</b>	Cash Flow Before Debt Service	Debt Service	Cash Flow After Debt Service	Coverage Ratio
Audited 2016	2,097,366	944,663	1,152,703	2.2
Audited 2017	1,829,355	730,950	1,098,405	2.5
Audited 2018	2,428,489	2,150,048	278,441	1.1
Projected 2019	2,789,646	2,427,874	361,772	1.1
Projected 2020	2,800,932	2,427,665	373,267	1.2
Projected 2021	2,799,713	2,326,998	472,716	1.2
Projected 2022	2,810,580	2,487,549	323,031	1.1
Projected 2023	2,821,224	2,489,140	332,084	1.1

Reviewer: Meili Sun  
Date: April 4, 2019  
Loan Number: F19-042

**KENTUCKY INFRASTRUCTURE AUTHORITY  
DRINKING WATER STATE REVOLVING FUND (FUND F)  
CITY OF DANVILLE, BOYLE COUNTY  
PROJECT REVIEW  
WX21021010**

**I. PROJECT DESCRIPTION**

The City of Danville is requesting a Drinking Water SRF loan in the amount of \$4,918,257 for the Danville – Perryville Standpipe Replacement and Water Main project. The project will replace the 100,000 gallon standpipe on the east side of Perryville with a 750,000 gallon elevated tank, and construct an 800 GPM pump station that will be located on Perryville Road near Locklin Lane. The current standpipe is outdated, undersized, and does not have adequate turnover. The new elevated tank will be fed by approximately 17,500 LF of new 12-inch water main that will start at Coldwell Road and will parallel Perryville Road West to the new tank site. It will provide additional storage capacity to meet both current and future demands.

Approximately 35% (470 million gallons) of water produced by the utility is sold to wholesale customers including four PSC regulated entities (Garrard County Water Association, Lake Village Water Association, Parksville Water District, and North Mercer Water District) and three municipals (City of Hustonville, City of Springfield, and City of Stanford).

**II. PROJECT BUDGET**

	<u>Total</u>
Administrative Expenses	\$ 15,000
Legal Expenses	10,000
Land, Easements	15,000
Planning	10,000
Engineering Fees – Design	154,997
Engineering Fees – Construction	38,748
Engineering Fees – Other	25,000
Construction	4,240,512
Contingency	409,000
<b>Total</b>	<b>\$ 4,918,257</b>

### III. PROJECT FUNDING

	Amount	%
KIA Fund F Loan	\$ 4,918,257	100%

### IV. KIA DEBT SERVICE

Construction	\$ 4,918,257
Principal Forgiveness (0%)	0
Amortized Loan Amount	\$ 4,918,257
Interest Rate	2.00%
Loan Term (Year)	20
Estimated Annual Debt Service	\$ 299,577
Administrative Fee (0.25%)	12,296
<b>Annual Debt Service</b>	<b>\$ 311,873</b>

### V. PROJECT SCHEDULE

Bid Opening	September 2019
Construction Start	November 2019
Construction Stop	November 2020

### VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

#### A) Customers

Customers	Current
Residential	10,172
Commercial	933
Industrial	16
<b>Total</b>	<b>11,121</b>

#### B) Rates

	Water Inside City		Water Outside City	
	Current	Prior	Current	Prior
Date of Last Rate Increase	07/28/18	07/27/17	07/28/18	07/27/17
First 100 cu. ft. (min. bill)	\$ 8.80	\$ 8.62	\$ 14.35	\$14.17
Next 200	2.94	2.88	4.78	4.72
Next 1,500	2.20	2.15	3.58	3.54
All Over 1,800	1.90	1.83	3.05	3.01
Cost for 4,000 gallons	\$19.84	\$19.43	\$32.31	\$31.92
Increase %	2.15%		1.23%	
Affordability Index (Rate/MHI)	0.62%	0.61%	1.01%	0.99%

	Sewer Inside City		
	Current	Prior	Prior
Date of Last Rate Increase	07/28/18	07/27/17	07/17/14
Minimum Monthly	4.20	4.12	4.08
Per 100 cu. ft.	\$4.62	\$4.52	\$2.63
Cost for 4,000 gallons	28.90	28.29	18.15
Increase %	2.17%	55.86%	
Affordability Index (Rate/MHI)	0.90%	0.88%	0.57%

	Sewer Perryville		
	Current	Prior	Prior
Date of Last Rate Increase	07/28/18	07/27/17	07/17/14
Minimum Monthly	4.20	4.12	4.08
Per 100 cu. ft.	\$12.96	\$12.69	\$6.75
Cost for 4,000 gallons	73.54	72.01	40.19
Increase %	2.12%	79.17%	
Affordability Index (Rate/MHI)	2.29%	2.24%	1.25%

	Sewer Junction City		
	Current	Prior	Prior
Date of Last Rate Increase	07/28/18	07/27/17	07/17/14
Minimum Monthly	4.20	4.12	4.08
Per 100 cu. ft.	\$9.60	\$9.40	5.87
Cost for 4,000 gallons	55.56	54.41	35.48
Increase %	2.11%	53.33%	
Affordability Index (Rate/MHI)	1.73%	1.70%	1.11%

The City's water and sewer rate ordinances require that rates be adjusted each July 1 for cost of living adjustment (COLA) as published by the Commonwealth.

## VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 23,575 with a Median Household Income (MHI) of \$38,499. The median household income for the Commonwealth was \$44,811. The project will qualify for a 2.00% interest rate with its median household income below 100% but above 80% of the state MHI.

Year	Population		County		County Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	12,942		25,066		June 2005	7.0%
1990	12,420	-4.0%	25,641	2.3%	June 2010	11.3%
2000	15,477	24.6%	27,697	8.0%	June 2015	6.0%
2010	16,218	4.8%	28,432	2.7%	June 2018	5.1%
Current	16,645	2.6%	29,650	4.3%		
Cumulative %		28.6%		18.3%		

**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 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. The Utilities Fund accounts for the activities of the water and sewer services provided to residents of the City and surrounding areas. The City also has a storm water fund which is reported separately and therefore is not part of this analysis. The non-cash impact of GASB 68 - Accounting and Financial Reporting for Pensions and GASB 75 - Other Postemployment Benefit has been removed from the 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 went up 16.5% from \$7.98 million in 2016 to \$9.30 million in 2018 as a result of a 56% sewer rate increase effective July 24, 2017. Operating expenses increased 17.2% from \$5.92 million to \$6.94 million during the same period due to operation and personnel costs associated with the new water treatment plant. The debt coverage ratio was 2.2, 2.5, and 1.1 for 2016, 2017, and 2018 respectively.

The balance sheet reflects a current ratio of 1.8, debt to equity ratio of 1.8, 32.3 days sales in accounts receivable, and 7.3 months of operating expenses in unrestricted cash.

**PROJECTIONS**

Projections are based on the following assumptions:

- 1) Water revenues will increase approximately 1.3% each year for cost of living adjustment (COLA) while wholesale remains flat.
- 2) Sewer revenues will reflect a full year increase of 56% from the July 24, 2017 rates and a 2% COLA adjustment.
- 3) Expenses will increase 2% for inflation.
- 4) Debt service coverage is 1.2 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% (\$246,000 total) of the final amount borrowed to be funded annually (\$12,300 yearly) each December 1 for 20 years and maintained for the life of the loan.

#### X. DEBT OBLIGATIONS

	Outstanding	Maturity
Series 1995 Revenue Bonds	\$ 345,000	2034
Series 2000 Revenue Bonds	350,400	2040
Series 2008 RD Bonds	1,339,700	2049
Series 2010 RD Bonds	547,500	2050
KIA Loan F14-010	11,814,571	2037
Series 2014A GO	2,700,000	2035
Series 2014B GO	1,235,000	2021
Series 2015A	8,479,000	2055
Series 2015B	4,924,000	2055
Series 2017A GO	7,160,000	2036
Deferred Amounts	1,170,737	
<b>Total</b>	<b>40,065,908</b>	

#### XI. CONTACTS

<b>Legal Applicant</b>	
Name	City of Danville
Address	PO Box 670, 445 W Main St Danville, KY 40422
County	Boyle
Authorized Official	G Michael Perros, Mayor
Phone	(859) 238-1200
Email	mperros@danvilleky.org

<b>Project Contact - Applicant</b>	
Name	Earl W Coffey
Organization	City of Danville
Address	PO Box 670 Danville, KY 40423
Phone	(859) 238-1200
Email	ecoffey@danvilleky.org

<b>Project Administrator</b>	
Name	Bob Sturdivant
Organization	HDR, Inc
Address	2517 Sir Barton Way Lexington, KY 40509
Phone	(859) 629-4826
Email	bob.sturdivant@hdrinc.com

<b>Consulting Engineer</b>	
Name	Richard Smith
Firm	HDR, Inc
Address	2517 Sir Barton Way Lexington, KY 40509
Phone	(859) 223-3755
Email	rich.smith@hdrinc.com

**XII. RECOMMENDATIONS**

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

**CITY OF DANVILLE  
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>
<b>Balance Sheet</b>								
<b>Assets</b>								
Current Assets	2,867,155	3,290,182	5,222,808	5,632,483	6,019,250	6,505,766	6,842,797	7,189,081
Other Assets	60,764,746	62,043,659	67,146,235	64,582,196	63,269,319	64,384,474	65,379,882	63,923,403
<b>Total</b>	<b>63,631,901</b>	<b>65,333,841</b>	<b>72,369,043</b>	<b>70,214,679</b>	<b>69,288,569</b>	<b>70,890,240</b>	<b>72,222,678</b>	<b>71,112,483</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	2,801,752	2,950,883	2,910,290	2,859,461	2,659,339	2,966,393	3,032,699	3,091,930
Long Term Liabilities	35,670,853	35,624,719	44,022,221	41,897,760	40,680,938	39,184,362	37,649,280	36,083,367
<b>Total Liabilities</b>	<b>38,472,605</b>	<b>38,575,602</b>	<b>46,932,511</b>	<b>44,757,221</b>	<b>43,340,277</b>	<b>42,150,755</b>	<b>40,681,979</b>	<b>39,175,297</b>
<b>Net Assets</b>	<b>25,159,296</b>	<b>26,758,239</b>	<b>25,436,532</b>	<b>25,457,458</b>	<b>25,948,292</b>	<b>28,739,485</b>	<b>31,540,699</b>	<b>31,937,186</b>
<b>Cash Flow</b>								
Revenues	7,976,865	8,069,684	9,298,659	9,839,948	9,992,840	10,148,359	10,306,553	10,467,470
Operating Expenses	5,919,948	6,274,416	6,941,473	7,080,302	7,221,908	7,378,646	7,525,973	7,676,246
Other Income	40,449	34,087	71,303	30,000	30,000	30,000	30,000	30,000
<b>Cash Flow Before Debt Service</b>	<b>2,097,366</b>	<b>1,829,355</b>	<b>2,428,489</b>	<b>2,789,646</b>	<b>2,800,932</b>	<b>2,799,713</b>	<b>2,810,580</b>	<b>2,821,224</b>
<b>Debt Service</b>								
Existing Debt Service	944,663	730,950	2,150,048	2,427,874	2,427,665	2,171,061	2,175,676	2,177,267
Proposed KIA Loan	0	0	0	0	0	155,937	311,873	311,873
<b>Total Debt Service</b>	<b>944,663</b>	<b>730,950</b>	<b>2,150,048</b>	<b>2,427,874</b>	<b>2,427,665</b>	<b>2,326,998</b>	<b>2,487,549</b>	<b>2,489,140</b>
<b>Cash Flow After Debt Service</b>	<b>1,152,703</b>	<b>1,098,405</b>	<b>278,441</b>	<b>361,772</b>	<b>373,267</b>	<b>472,716</b>	<b>323,031</b>	<b>332,084</b>
<b>Ratios</b>								
Current Ratio	1.0	1.1	1.8	2.0	2.3	2.2	2.3	2.3
Debt to Equity	1.5	1.4	1.8	1.8	1.7	1.5	1.3	1.2
Days Sales in Accounts Receivable	40.2	89.8	32.3	32.3	32.3	32.3	32.3	32.3
Months Operating Expenses in Unrestricted Cash	3.6	2.1	7.3	7.8	8.2	8.9	9.2	9.5
Debt Coverage Ratio	2.2	2.5	1.1	1.1	1.2	1.2	1.1	1.1