

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

- **Fund A Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
A19-002	City of Louisa	\$ 3,339,588	Lawrence
A19-039	Paducah McCracken County Joint Sewer Agency	\$ 5,193,000	McCracken
A19-044	Paducah McCracken County Joint Sewer Agency	\$ 2,476,652	McCracken

- **Fund F Loan**

<u>Loan #</u>	<u>Borrower</u>	<u>Loan Amount</u>	<u>County</u>
F19-041	City of South Shore	\$ 3,051,133	Greenup

<b>EXECUTIVE SUMMARY</b>		Reviewer	Meili Sun	
<b>KENTUCKY INFRASTRUCTURE AUTHORITY</b>		Date	May 7, 2019	
<b>FUND A, FEDERALLY ASSISTED WASTEWATER</b>		KIA Loan Number	A19-002	
<b>REVOLVING LOAN FUND</b>		WRIS Number	SX21127030	
BORROWER	CITY OF LOUISA LAWRENCE COUNTY			
<b>BRIEF DESCRIPTION</b>				
This is the construction portion of the I&I Rehab project that started with a planning and design loan approved on December 1, 2016. In 2009, a Sewer Evaluation Study (SES) was performed on the entire Louisa sewer system that yielded a delineation of three priority zones for rehabilitation. This project will address the downtown area (Zone 1), which is considered to have the oldest infrastructure and is the highest priority for the city. The planning and design portion paid for camera inspection of approximately 23,250 linear feet of sewer line and determined what measures are necessary to address the issues. The construction portion will replace storm sewer along Lock Avenue and Pike Street in downtown Louisa, with intent to separate the combined sewer in parts of the area and eliminate other inflow and infiltration concerns.				
<b>PROJECT FINANCING</b>		<b>PROJECT BUDGET</b>		
Fund A Loan A19-002	\$3,106,922	RD Fee %	Actual %	
P&D A17-023	232,666			
		Administrative Expenses		\$10,000
		Planning		70,387
		Eng - Design / Const	7.2%	6.7%
		Eng - Insp	4.0%	3.6%
		Construction		2,457,420
		Contingency		496,480
<b>TOTAL</b>	<b>\$3,339,588</b>	<b>TOTAL</b>		<b>\$3,339,588</b>
<b>REPAYMENT</b>	Rate	0.50%	Est. Annual Payment	\$127,751
	Term	20 Years	1st Payment	6 Mo. after first draw
<b>PROFESSIONAL SERVICES</b>	Engineer	P&A Engineering and Consulting		
	Bond Counsel	Dinsmore & Shohl, LLP		
<b>PROJECT SCHEDULE</b>	Bid Opening	May-19		
	Construction Start	Jun-19		
	Construction Stop	Jun-20		
<b>DEBT PER CUSTOMER</b>	Existing	\$4,143		
	Proposed	\$5,741		
<b>OTHER DEBT</b>	See Attached			
<b>RESIDENTIAL RATES</b>		<u>Users</u>	<u>Avg. Bill</u>	
	Current	1,857	\$39.05	(for 4,000 gallons)
	Additional	0	\$39.05	(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	794,490	674,381	120,109	1.2
Audited 2017	801,245	675,471	125,774	1.2
Audited 2018	936,477	670,884	265,593	1.4
Projected 2019	980,054	779,224	200,830	1.3
Projected 2020	1,025,388	783,131	242,257	1.3
Projected 2021	1,062,143	879,296	182,848	1.2
Projected 2022	1,111,185	889,367	221,818	1.2
Projected 2023	1,162,185	861,229	300,956	1.3

Reviewer: Meili Sun  
Date: May 7, 2019  
Loan Number: A19-002

**KENTUCKY INFRASTRUCTURE AUTHORITY  
WASTEWATER REVOLVING LOAN FUND (FUND A)  
CITY OF LOUISA, LAWRENCE COUNTY  
PROJECT REVIEW  
SX21127030**

**I. PROJECT DESCRIPTION**

The City of Louisa (“the City”) is requesting a Fund A loan in the amount of \$3,106,922 to fund the construction portion of the Inflow & Infiltration Rehabilitation project. The total project cost is \$3,339,588 including the planning & design loan previously approved on December 1, 2016.

The purpose of this project is to eliminate inflow and infiltration in the Louisa Sewer System by constructing a portion of storm water sewer facilities.

In 2009, a Sewer Evaluation Study (“SSES”) was performed on the entire Louisa Sewer System, which yielded a delineation of three priority zones for rehabilitation. This project will address the downtown area (Zone 1), which is considered to have the oldest infrastructure and is the highest priority of the City. The planning and design portion paid for camera inspection of approximately 23,250 linear feet of sewer line and determined exactly what measures are necessary to address the issues. The construction portion will replace storm sewer along Lock Avenue and Pike Street in downtown Louisa, with intent to separate the combined sewer in parts of the area and eliminate other inflow and infiltration concerns.

By separating the storm sewer from the City’s sanitary sewer, the City will be able to lower the cost of wastewater treatment as well as reduce the risk of sanitary sewer overflow for approximately 1,800 customers within the Lawrence County.

**II. PROJECT BUDGET**

	<u>Total</u>
Administrative Expenses	\$ 10,000
Planning	70,387
Engineering Fees – Design	162,279
Engineering Fees – Construction	36,616
Engineering Fees – Inspection	106,406
Construction	2,457,420
Contingency*	496,480
<b>Total</b>	<b>\$ 3,339,588</b>

\* Contingency is 20% of the construction cost due to uncertainties associated with depth of the line and various requirements that may be imposed by the KYTC.

### III. PROJECT FUNDING

	Amount	%
KIA A17-023 P&D Loan	\$ 232,666	7%
KIA A19-002 Construction Loan	3,106,922	93%
<b>Total</b>	<b>\$ 3,339,588</b>	<b>100%</b>

### IV. KIA DEBT SERVICE

KIA A17-023 P&D Loan	\$ 232,666
KIA A19-002 Construction Loan	3,106,922
Principal Forgiveness	1,000,000
Amortized Loan Amount	\$ 2,339,588
Interest Rate	0.50%
Loan Term	20
Estimated Annual Debt Service	123,072
Administrative Fee (0.20%)	4,679
<b>Total Estimated Annual Debt Service</b>	<b>\$ 127,751</b>

### V. PROJECT SCHEDULE

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

### VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

#### A) Customers

	Current
Residential	1,579
Commercial	278
Industrial	
<b>Total</b>	<b>1,857</b>

**B) Rates**

Date of Increase	Water Inside City			Water Outside City		
	Current 05/01/18	Prior 05/01/17	Prior 07/01/16	Current 05/01/18	Prior 05/01/17	Prior 07/01/16
First 1,000 Gallons	\$17.72	\$17.12	\$16.47	\$23.18	\$22.40	21.55
Next 3,000 Gallons	7.11	6.87	6.61	9.08	8.77	8.44
Cost for 4,000 gallons	\$39.05	\$37.73	\$36.30	\$50.42	\$48.71	\$46.87
Increase %	3.5%	3.9%		3.5%	3.9%	
Affordability Index	1.5%	1.5%	1.4%	2.0%	1.9%	1.8%

Date of Increase	Sewer Inside City			Sewer Outside City		
	Current 05/01/18	Prior 05/01/17	Prior 07/01/16	Current 05/01/18	Prior 05/01/17	Prior 07/01/16
First 1,000 Gallons	\$10.82	\$10.45	10.07	\$11.72	\$11.31	10.90
Next 3,000 Gallons	10.82	10.45	10.07	11.72	11.31	10.90
Cost for 4,000 gallons	\$43.28	\$41.80	\$40.28	\$46.88	\$45.24	\$43.60
Increase %	3.5%	3.8%		3.6%	3.8%	
Affordability Index	1.7%	1.6%	1.6%	1.8%	1.8%	1.7%

A CPI clause was written into the 2012 rate ordinance to automatically adjust both water and sewer rates annually based on the Consumer Price Index.

**VII. DEMOGRAPHICS**

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 3,433 with a Median Household Income (MHI) of \$30,830. The median household income for the Commonwealth is \$44,811. The MHI of the City's service area is below 80% of the state MHI, which qualifies this project for a 0.5% interest rate and \$1,000,000 in principal forgiveness.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	1,832		14,121		June 2005	9.0%
1990	1,990	8.6%	13,998	-0.9%	June 2010	13.9%
2000	2,018	1.4%	15,569	11.2%	June 2015	9.0%
2010	2,467	22.2%	15,860	1.9%	June 2018	8.3%
Current	2,708	9.8%	15,870	0.1%		
Cumulative %		47.8%		12.4%		

**VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES**

- 1) Green Project Reserve - This project does not qualify for Green Project Reserve (GPR) funding.
- 2) Additional Subsidization – Principal forgiveness of 50% of the assistance amount, not to exceed \$1,000,000, will be credited to the loan balance upon release of liens on all contracts and disbursement of the final draw request by KIA to the borrower.

**IX. FINANCIAL ANALYSIS**

Financial information was obtained from the audited financial statements for the years ended June 30, 2016 through June 30, 2018. The City’s Enterprise Funds account for water & sewer and swimming pool activities. The swimming pool operations are excluded from this analysis. The 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 5.5% from \$2.62 million in 2016 to \$2.77 million in 2018 due to the annual CPI rate increases. Operating expenses increased less than 1% from \$1.83 million to \$1.84 million during the same period. The debt coverage ratio was 1.2, 1.2 and 1.4 for 2016, 2017, and 2018 respectively.

The balance sheet reflects a current ratio of 2.4, debt to equity ratio of 0.8, 67.5 days sales in accounts receivable, and 0.2 months of operating expenses in unrestricted cash.

## PROJECTIONS

Projections are based on the following assumptions:

- 1) Water revenues will grow steadily each year at an estimated 2.7% for CPI adjustments.
- 2) Sewer revenues will increase 3.7% each year based on the historical average of CPI increases. This is projected at a higher rate than the water revenues due to the rate structure of the water customers including wholesale.
- 3) Wholesale water rates to Big Sandy Water District will remain at \$3.06 per 1,000 gallons. However, the Public Service Commission may set new rates as necessary.
- 4) Expenses will increase 2% each year for inflation.
- 5) Debt service coverage is 1.2 in 2022 when full year principal and interest repayments begin.

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

## REPLACEMENT RESERVE

The replacement reserve will be 5% (\$166,000 total) of the final amount borrowed (prior to principal forgiveness, if any) to be funded annually (\$8,300 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 Revenues Bonds, Series 1989	\$ 48,260	2029
Water & Sewer Bonds, Series 2002	763,500	2042
Water & Sewer Bonds, Series 2007	362,000	2046
Revenue Bonds, Series 2010D	290,000	2025
KIA Loan C98-02	105,000	2022
KIA Loan A11-02	798,885	2034
KIA Loan F02-06	1,171,091	2024
KIA Loan A209-10	353,850	2030
KIA Loan B08-07	748,344	2033
KIA Loan F10-03	1,299,047	2033
KIA Loan C98-02	151,658	2021
KACO Loan 1BP2017B	1,601,511	2032
KIA Loan F18-018 i.a.o. \$834,430		TBD
<b>Total</b>	<b>\$ 7,693,146</b>	

**XI. CONTACTS**

<b>Legal Applicant</b>	
Name	City of Louisa
Address	215 N Main Cross St Louisa, KY 41230
County	Lawrence
Authorized Official	Harold E Slone
Phone	(606) 638-4050
Email	mayoroflouisa@gmail.com

<b>Project Contact - Applicant</b>	
Name	Jason Helton
Organization	City of Louisa
Address	215 N Main Cross St Louisa, KY 401230
Phone	(606) 638-9322
Email	louisawater@louisawater.com

<b>Project Administrator/Engineer</b>	
Name	Robert S Martin
Organization	P & A Engineering and Consulting
Address	PO Box 279 Louisa, KY 41230
Phone	(606) 673-4413
Email	bmartin@pa-eng.com

**XII. RECOMMENDATIONS**

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



**CITY OF LOUISA  
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	584,323	697,564	663,056	723,144	786,895	839,265	899,929	976,920
Other Assets	16,863,923	19,239,389	20,808,568	20,008,722	23,818,936	23,313,654	22,839,549	22,428,753
<b>Total</b>	<b>17,448,246</b>	<b>19,936,953</b>	<b>21,471,624</b>	<b>20,731,866</b>	<b>24,605,832</b>	<b>24,152,919</b>	<b>23,739,477</b>	<b>23,405,673</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	380,876	339,152	273,966	265,646	267,446	269,246	271,046	272,946
Long Term Liabilities	8,036,359	7,583,201	9,555,724	9,336,775	12,290,110	12,248,354	12,379,752	12,409,620
<b>Total Liabilities</b>	<b>8,417,235</b>	<b>7,922,353</b>	<b>9,829,690</b>	<b>9,602,421</b>	<b>12,557,556</b>	<b>12,517,600</b>	<b>12,650,798</b>	<b>12,682,566</b>
<b>Net Assets</b>	<b>9,031,011</b>	<b>12,014,600</b>	<b>11,641,934</b>	<b>11,129,445</b>	<b>12,048,276</b>	<b>11,635,320</b>	<b>11,088,679</b>	<b>10,723,107</b>
<b>Cash Flow</b>								
Revenues	2,624,401	2,719,469	2,769,819	2,850,109	2,932,890	3,018,241	3,106,243	3,196,982
Operating Expenses	1,832,006	1,920,489	1,835,653	1,872,366	1,909,813	1,958,409	1,997,369	2,037,108
Other Income	2,095	2,265	2,311	2,311	2,311	2,311	2,311	2,311
<b>Cash Flow Before Debt Service</b>	<b>794,490</b>	<b>801,245</b>	<b>936,477</b>	<b>980,054</b>	<b>1,025,388</b>	<b>1,062,143</b>	<b>1,111,185</b>	<b>1,162,185</b>
<b>Debt Service</b>								
Existing Debt Service	674,381	675,471	670,884	779,224	783,131	815,420	761,616	733,478
Proposed KIA Loan	0	0	0	0	0	63,876	127,751	127,751
<b>Total Debt Service</b>	<b>674,381</b>	<b>675,471</b>	<b>670,884</b>	<b>779,224</b>	<b>783,131</b>	<b>879,296</b>	<b>889,367</b>	<b>861,229</b>
<b>Cash Flow After Debt Service</b>	<b>120,109</b>	<b>125,774</b>	<b>265,593</b>	<b>200,830</b>	<b>242,257</b>	<b>182,848</b>	<b>221,818</b>	<b>300,956</b>
<b>Ratios</b>								
Current Ratio	1.5	2.1	2.4	2.7	2.9	3.1	3.3	3.6
Debt to Equity	0.9	0.7	0.8	0.9	1.0	1.1	1.1	1.2
Days Sales in Accounts Receivable	63.7	67.7	67.5	67.5	67.5	67.5	67.5	67.5
Months Operating Expenses in Unrestricted Cash	0.1	0.5	0.2	0.5	0.8	1.0	1.2	1.6
Debt Coverage Ratio	1.2	1.2	1.4	1.3	1.3	1.2	1.2	1.3

<b>EXECUTIVE SUMMARY</b>		Reviewer	Ashley Adams	
<b>KENTUCKY INFRASTRUCTURE AUTHORITY</b>		Date	May 7, 2019	
<b>FUND A, FEDERALLY ASSISTED WASTEWATER</b>		KIA Loan Number	A19-039	
<b>REVOLVING LOAN FUND</b>		WRIS Number	SX21145027	
<b>BORROWER</b>		PADUCAH MCCRACKEN COUNTY JOINT SEWER AGENCY MCCRACKEN COUNTY		
<b>BRIEF DESCRIPTION</b>				
This project will capture excess wet weather flows near the intersection of the Cooked Creek and Perkins Creek sanitary sewer interceptors, eliminating a sanitary sewer overflow. Work will include a segment of gravity sewer, a diversion structure, a lift station, and a 3 million gallon above ground concrete storage tank. This project is in accordance with the sanitary sewer overflow plan to help assuage the system's Consent Decree (CWA-04-2008-4756).				
<b>PROJECT FINANCING</b>		<b>PROJECT BUDGET</b>		
Fund A Loan	\$5,193,000	RD Fee %	Actual %	
				10,000
				250,000
		6.8%	6.2%	280,000
		3.6%	1.8%	80,000
				25,000
				4,000,000
				523,000
				25,000
<b>TOTAL</b>	<b>\$5,193,000</b>	<b>TOTAL</b>		<b>\$5,193,000</b>
<b>REPAYMENT</b>	Rate	2.00%	Est. Annual Payment	\$326,698
	Term	20 Years	1st Payment	6 Mo. after first draw
<b>PROFESSIONAL SERVICES</b>	Engineer	GRW Engineers, Inc		
	Bond Counsel	Dinsmore & Shohl, LLP		
<b>PROJECT SCHEDULE</b>	Bid Opening	Jul-19		
	Construction Start	Oct-19		
	Construction Stop	Oct-20		
<b>DEBT PER CUSTOMER</b>	Existing	\$1,210		
	Proposed	\$1,976		
<b>OTHER DEBT</b>	See Attached			
<b>OTHER STATE-FUNDED PROJECTS LAST 5 YRS</b>	See Attached			
<b>RESIDENTIAL RATES</b>		<u>Users</u>	<u>Avg. Bill</u>	
	Current	18,708	\$23.32	(for 4,000 gallons)
	Additional	0	\$23.32	(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	3,085,407	1,375,321	1,710,086	2.2
Audited 2017	3,395,483	1,556,594	1,838,889	2.2
Audited 2018	4,774,436	1,604,158	3,170,278	3.0
Projected 2019	4,685,349	1,606,436	3,078,913	2.9
Projected 2020	4,594,481	1,647,225	2,947,256	2.8
Projected 2021	4,501,795	2,548,783	1,953,012	1.8
Projected 2022	4,407,256	2,711,990	1,695,266	1.6
Projected 2023	4,310,826	2,710,943	1,599,883	1.6

Reviewer: Ashley Adams  
Date: May 7, 2019  
Loan Number: A19-039

**KENTUCKY INFRASTRUCTURE AUTHORITY  
WASTEWATER REVOLVING LOAN FUND (FUND A)  
PADUCAH McCRACKEN JOINT SEWER AGENCY,  
McCRACKEN COUNTY  
PROJECT REVIEW  
SX21145027**

**I. PROJECT DESCRIPTION**

The Paducah McCracken Joint Sewer Agency is requesting a Fund A loan in the amount of \$5,193,000 for the Perkins/Crooked Creek Wet Weather Tank project. This project will capture excess wet weather flows near the intersection of the Crooked Creek and Perkins Creek sanitary sewer interceptors, eliminating a sanitary sewer overflow and improving water quality. Construction will include a 3.0 million gallon above ground concrete storage tank, associated site improvements, and infrastructure to convey wet weather flows to/from the proposed storage tank. Additional infrastructure will include: a 5.0 million gallon a day (MGD) pump station, an influent diversion structure, an effluent flow control structure, approximately 400 linear feet of 24" sanitary sewer, and approximately 1,000 linear feet of 18" sanitary sewer. Electrical work and controls for the pump station and tank effluent flow control structure are also included. This project is in accordance with the sanitary sewer overflow plan to help comply with the system's Consent Decree (CWA-04-2008-4756).

The Paducah McCracken Joint Sewer Agency serves over 18,700 customers in the City of Paducah and McCracken County.

**II. PROJECT BUDGET**

	<b>Total</b>
Legal Expenses	\$ 10,000
Land, Easements	250,000
Engineering Fees - Design	220,000
Engineering Fees - Construction	60,000
Engineering Fees - Inspection	80,000
Engineering Fees - Other	25,000
Construction	4,000,000
Contingency	523,000
Other	25,000
<b>Total</b>	<b>\$ 5,193,000</b>

### III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 5,193,000	100%
<b>Total</b>	<b>\$ 5,193,000</b>	<b>100%</b>

### IV. KIA DEBT SERVICE

Construction Loan	\$ 5,193,000	
Less: Principal Forgiveness	0	
Amortized Loan Amount	\$ 5,193,000	
Interest Rate		2.00%
Loan Term (Years)		20
Estimated Annual Debt Service	\$ 316,312	
Administrative Fee (0.20%)		10,386
<b>Total Estimated Annual Debt Service</b>	<b>\$ 326,698</b>	

### V. PROJECT SCHEDULE

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

### VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

#### A) Customers

	<u>Current</u>
Residential/Commercial/Industrial	18,708
<b>Total</b>	<b>18,708</b>

#### B) Rates

	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	07/01/17	03/01/16
Minimum (3,000 gallons)	\$ 17.49	\$ 15.45
Over 3,000 gallons (per 1,000)	5.83	5.15
<b>Cost for 4,000 gallons</b>	<b>\$ 23.32</b>	<b>\$ 20.60</b>
Increase %	13.2%	
Affordability Index (Rate/MHI)	0.8%	

## VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 34,452 with a Median Household Income (MHI) of \$36,678. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2.0% interest rate based on the Utility's MHI and Agreed Order.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	29,315		61,310		June 2005	6.3%
1990	27,256	-7.0%	62,879	2.6%	June 2010	9.0%
2000	26,307	-3.5%	65,514	4.2%	June 2015	5.8%
2010	25,024	-4.9%	65,565	0.1%	June 2018	6.3%
Current	25,010	-0.1%	65,292	-0.4%		
Cumulative %		-14.7%		6.5%		

## 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. 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

Revenues increased 23% from \$7.4 million in 2016 to \$9.1 million in 2018. The revenue increase was driven by rate increases for the utility in both 2016 and 2017. Expenses increased 3% from \$4.3 million in 2016 to \$4.5 million in 2018. Debt coverage was 2.2 in both 2016 and 2017 and 3.0 in 2018.

The 2018 balance sheet reflects a current ratio of 7.1, a debt to equity ratio of 0.5, 21 days sales in accounts receivable, and 13.1 months operating expenses in unrestricted cash.

## PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will stay flat for both volume and growth and reflect all currently planned rate increases. The utility has a CPI clause that states they may adjust rates based on CPI-U each April although no CPI assumptions for revenue growth were factored into this analysis.
- 2) Expenses will increase 2% annually for inflation.
- 3) This analysis includes debt service for both A19-039 as well as A19-044 (\$482 thousand is the current combined estimate).
- 4) Debt service coverage is 1.6 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 Agency currently has designated reserves of \$3,000,000. The reserves are specifically for high dollar capital equipment purchases, for emergencies, or for rate stabilization in the event of a loss of a substantial revenue stream. No additional reserves will be required.

## X. DEBT OBLIGATIONS

	<u>Outstanding Maturity</u>	
Sewer Revenue Bonds (Series 2012)	\$ 4,008,000	2051
Sewer Revenue Bonds (Series 2014)	3,530,000	2031
KIA Loan A03-01	408,049	2023
KIA Loan A03-08	521,375	2026
KIA Loan A04-03	338,746	2025
KIA Loan A08-01	919,471	2029
KIA Loan A09-02	4,801,797	2033
KIA Loan A12-08	6,429,869	2035
KIA Loan A16-072 i/a/o \$2,385,000	1,678,017	TBD
KIA Loan A17-033 i/a/o \$9,100,000	0	TBD
KIA Loan A18-022 i/a/o \$625,000	0	TBD
KIA Loan A19-044 i/a/o \$2,476,652	0	TBD
<b>Total</b>	<b>\$ 22,635,323</b>	

## **XI. CONTACT**

### **Legal Applicant**

Entity Name	Paducah McCracken County Joint Sewer Agency
Authorized Official	Justin Hancock (Board Chairman)
County	McCracken
Email	justin@hancocks-paducah.com
Phone	(270) 575-0056
Address	621 Northview St Paducah, KY 42001

### **Applicant Contact**

Name	John Hodges
Organization	Paducah McCracken County Joint Sewer Agency
Email	jhodges@jointsewer.com
Phone	270-575-0056
Address	621 Northview St Paducah, KY 42001

### **Project Administrator**

Name	Josh Webb
Organization	Paducah McCracken County Joint Sewer Agency
Email	jwebb@jointsewer.com
Phone	270-575-0056
Address	621 Northview St Paducah, KY 42001

### **Consulting Engineer**

PE Name	Tyler Bridges
Firm Name	GRW Engineers, Inc.
Email	tbridges@grwinc.com
Phone	859-489-8484
Address	9710 Bunsen Pkwy Louisville, KY 40299

## **XII. RECOMMENDATIONS**

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



**PADUCAH MCCRACKEN COUNTY JOINT SEWER AGENCY  
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	13,992,586	13,850,539	12,978,262	13,286,107	13,580,833	13,776,134	13,945,661	14,105,649
Other Assets	67,910,623	68,436,117	72,089,951	75,762,676	85,815,865	87,192,758	85,741,179	84,203,756
<b>Total</b>	<b>81,903,209</b>	<b>82,286,656</b>	<b>85,068,213</b>	<b>89,048,783</b>	<b>99,396,698</b>	<b>100,968,892</b>	<b>99,686,840</b>	<b>98,309,405</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	2,581,348	2,561,594	1,831,780	1,840,638	1,896,576	2,326,936	2,365,825	2,405,315
Long Term Liabilities	23,890,401	24,573,136	26,720,572	27,995,144	36,787,275	37,756,594	36,099,924	34,413,364
<b>Total Liabilities</b>	<b>26,471,749</b>	<b>27,134,730</b>	<b>28,552,352</b>	<b>29,835,782</b>	<b>38,683,851</b>	<b>40,083,530</b>	<b>38,465,749</b>	<b>36,818,679</b>
<b>Net Assets</b>	<b>55,431,460</b>	<b>55,151,926</b>	<b>56,515,861</b>	<b>59,213,001</b>	<b>60,712,847</b>	<b>60,885,362</b>	<b>61,221,091</b>	<b>61,490,726</b>
<b>Cash Flow</b>								
Revenues	7,407,866	7,948,802	9,142,934	9,142,934	9,142,934	9,142,934	9,142,934	9,142,934
Operating Expenses	4,337,519	4,569,420	4,454,330	4,543,417	4,634,285	4,726,971	4,821,510	4,917,940
Other Income	15,060	16,101	85,832	85,832	85,832	85,832	85,832	85,832
<b>Cash Flow Before Debt Service</b>	<b>3,085,407</b>	<b>3,395,483</b>	<b>4,774,436</b>	<b>4,685,349</b>	<b>4,594,481</b>	<b>4,501,795</b>	<b>4,407,256</b>	<b>4,310,826</b>
<b>Debt Service</b>								
Existing Debt Service	1,375,321	1,556,594	1,604,158	1,606,436	1,647,225	2,229,625	2,229,483	2,228,436
Proposed KIA Loan A19-044	0	0	0	0	0	155,809	155,809	155,809
Proposed KIA Loan A19-039	0	0	0	0	0	163,349	326,698	326,698
<b>Total Debt Service</b>	<b>1,375,321</b>	<b>1,556,594</b>	<b>1,604,158</b>	<b>1,606,436</b>	<b>1,647,225</b>	<b>2,548,783</b>	<b>2,711,990</b>	<b>2,710,943</b>
<b>Cash Flow After Debt Service</b>	<b>1,710,086</b>	<b>1,838,889</b>	<b>3,170,278</b>	<b>3,078,913</b>	<b>2,947,256</b>	<b>1,953,012</b>	<b>1,695,266</b>	<b>1,599,883</b>
<b>Ratios</b>								
Current Ratio	5.4	5.4	7.1	7.2	7.2	5.9	5.9	5.9
Debt to Equity	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.6
Days Sales in Accounts Receivable	24.4	19.4	21.0	21.0	21.0	21.0	21.0	21.0
Months Operating Expenses in Unrestricted Cash	15.8	17.2	13.1	13.6	14.1	14.3	14.5	14.6
Debt Coverage Ratio	2.2	2.2	3.0	2.9	2.8	1.8	1.6	1.6

<b>EXECUTIVE SUMMARY</b>		Reviewer	Ashley Adams	
<b>KENTUCKY INFRASTRUCTURE AUTHORITY</b>		Date	May 7, 2019	
<b>FUND A, FEDERALLY ASSISTED WASTEWATER</b>		KIA Loan Number	A19-044	
<b>REVOLVING LOAN FUND</b>		WRIS Number	SX21145017	
<b>BORROWER</b>	PADUCAH MCCRACKEN COUNTY JOINT SEWER AGENCY MCCRACKEN COUNTY			
<b>BRIEF DESCRIPTION</b>				
The project's primary goal is to offload dry and wet weather flows from the Perkins Creek Interceptor to the Massac Creek Interceptor. This will be achieved by adding an additional pump to the Ross Lift Station. Additional improvements to the Ross Lift station include an emergency generator. Approximately 8,300 LF of gravity sewer will be constructed along with 2,700 LF of forcemain. As part of the project, four existing lift stations will be decommissioned. This project will help achieve compliance with Paducah JSA's consent decree, CWA-04-2008-4756.				
<b>PROJECT FINANCING</b>		<b>PROJECT BUDGET</b>		
Fund A Loan	\$2,476,652	RD Fee %	Actual %	
				10,000
				57,000
		7.6%	8.2%	163,860
		4.6%	4.2%	84,000
				1,750,000
				260,000
				100,000
<b>TOTAL</b>	<b>\$2,476,652</b>	<b>TOTAL</b>		<b>\$2,476,652</b>
<b>REPAYMENT</b>	Rate	2.00%	Est. Annual Payment	\$155,809
	Term	20 Years	1st Payment	6 Mo. after first draw
<b>PROFESSIONAL SERVICES</b>	Engineer	HDR Engineering		
	Bond Counsel	Dinsmore & Shohl, LLP		
<b>PROJECT SCHEDULE</b>	Bid Opening	Jul-19		
	Construction Start	Aug-19		
	Construction Stop	Mar-20		
<b>DEBT PER CUSTOMER</b>	Existing	\$1,210		
	Proposed	\$1,901		
<b>OTHER DEBT</b>	See Attached			
<b>OTHER STATE-FUNDED PROJECTS LAST 5 YRS</b>	See Attached			
<b>RESIDENTIAL RATES</b>		<u>Users</u>	<u>Avg. Bill</u>	
	Current	18,708	\$23.32 (for 4,000 gallons)	
	Additional	0	\$23.32 (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	3,085,407	1,375,321	1,710,086	2.2
Audited 2017	3,395,483	1,556,594	1,838,889	2.2
Audited 2018	4,774,436	1,604,158	3,170,278	3.0
Projected 2019	4,685,349	1,606,436	3,078,913	2.9
Projected 2020	4,594,481	1,647,225	2,947,256	2.8
Projected 2021	4,501,795	2,548,783	1,953,012	1.8
Projected 2022	4,407,256	2,711,990	1,695,266	1.6
Projected 2023	4,310,826	2,710,943	1,599,883	1.6

Reviewer: Ashley Adams  
Date: May 7, 2019  
Loan Number: A19-044

**KENTUCKY INFRASTRUCTURE AUTHORITY  
WASTEWATER REVOLVING LOAN FUND (FUND A)  
PADUCAH McCracken JOINT SEWER AGENCY,  
McCracken COUNTY  
PROJECT REVIEW  
SX21145017**

**I. PROJECT DESCRIPTION**

The Paducah McCracken Joint Sewer Agency (JSA) is requesting a Fund A loan in the amount of \$2,476,652 for the Massac Creek Phase III project. The project's primary goal is to improve water quality and eliminate sewer overflows by offloading dry and wet weather flows from the Perkins Creek Interceptor to the Massac Creek Interceptor. The Massac Creek Interceptor is served by a 6 million gallon per day pump station with adequate capacity to handle the diverted flows. By diverting this flow, wet weather flow impacts on the Perkins Creek interceptor will be reduced and the interceptor will regain additional dry weather capacity for continued growth and development of McCracken County. In addition, the Ross Lift Station will be upgraded for more pumping capacity, which the Perkins Creek Interceptor cannot handle during wet weather. Additional improvements to the Ross Lift station include an emergency generator. The rehabilitation of the Ross Lift Station will eliminate the sanitary sewer overflow associated with the station, which is included in Paducah JSA's Consent Judgment with Kentucky Division of Water. The project requires timely completion due to time constraints related to the JSA's sanitary sewer overflow plan. The project also includes 8,300 LF of new gravity sewer and 2,700 LF of new force main to be constructed in addition to the decommissioning of four existing lift stations.

The Paducah McCracken Joint Sewer Agency serves over 18,700 customers in the City of Paducah and McCracken County.

## II. PROJECT BUDGET

	<u>Total</u>
Legal Expenses	\$ 10,000
Land, Easements	57,000
Planning	22,192
Engineering Fees - Design	133,260
Engineering Fees - Construction	30,600
Engineering Fees - Inspection	84,000
Engineering Fees - Other	29,600
Construction	1,750,000
Contingency	260,000
Other	100,000
<b>Total</b>	<b>\$ 2,476,652</b>

## III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
Fund A Loan	\$ 2,476,652	100%
<b>Total</b>	<b>\$ 2,476,652</b>	<b>100%</b>

## IV. KIA DEBT SERVICE

Construction Loan	\$ 2,476,652
Less: Principal Forgiveness	<u>0</u>
Amortized Loan Amount	\$ 2,476,652
Interest Rate	2.00%
Loan Term (Years)	<u>20</u>
Estimated Annual Debt Service	\$ 150,856
Administrative Fee (0.20%)	<u>4,953</u>
<b>Total Estimated Annual Debt Service</b>	<b>\$ 155,809</b>

## V. PROJECT SCHEDULE

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

## VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

### A) Customers

	<u>Current</u>
Residential/Commercial/Industrial	<u>18,708</u>
<b>Total</b>	<b>18,708</b>

### B) Rates

	<u>Current</u>	<u>Prior</u>
Date of Last Rate Increase	07/01/17	03/01/16
Minimum (3,000 gallons)	\$ 17.49	\$ 15.45
Over 3,000 gallons (per 1,000)	5.83	5.15
<b>Cost for 4,000 gallons</b>	<b>\$ 23.32</b>	<b>\$ 20.60</b>
Increase %	13.2%	
Affordability Index (Rate/MHI)	0.8%	

## VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2012-2016, the Utility's service area population was 34,452 with a Median Household Income (MHI) of \$36,678. The median household income for the Commonwealth is \$44,811. The project will qualify for a 2.0% interest rate based on the Utility's MHI and Agreed Order.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	29,315		61,310		June 2005	6.3%
1990	27,256	-7.0%	62,879	2.6%	June 2010	9.0%
2000	26,307	-3.5%	65,514	4.2%	June 2015	5.8%
2010	25,024	-4.9%	65,565	0.1%	June 2018	6.3%
Current	25,010	-0.1%	65,292	-0.4%		
Cumulative %		-14.7%		6.5%		

## 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. 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**

Revenues increased 23% from \$7.4 million in 2016 to \$9.1 million in 2018. The revenue increase was driven by rate increases for the utility in both 2016 and 2017. Expenses increased 3% from \$4.3 million in 2016 to \$4.5 million in 2018. Debt coverage was 2.2 in both 2016 and 2017 and 3.0 in 2018.

The 2018 balance sheet reflects a current ratio of 7.1, a debt to equity ratio of 0.5, 21 days sales in accounts receivable, and 13.1 months operating expenses in unrestricted cash.

### **PROJECTIONS**

Projections are based on the following assumptions:

- 1) Revenues will stay flat for both volume and growth and reflect all currently planned rate increases. The utility has a CPI clause that states they may adjust rates based on CPI-U each April although no CPI assumptions for revenue growth were factored into this analysis.
- 2) Expenses will increase 2% annually for inflation.
- 3) This analysis includes debt service for both A19-039 as well as A19-044 (\$482 thousand is the current combined estimate).
- 4) Debt service coverage is 1.6 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 Agency currently has designated reserves of \$3,000,000. The reserves are specifically for high dollar capital equipment purchases, for emergencies, or for rate stabilization in the event of a loss of a substantial revenue stream. No additional reserves will be required.

**X. DEBT OBLIGATIONS**

	<u>Outstanding Maturity</u>	
Sewer Revenue Bonds (Series 2012)	\$ 4,008,000	2051
Sewer Revenue Bonds (Series 2014)	3,530,000	2031
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KIA Loan A18-022 i/a/o \$625,000	0	TBD
KIA Loan A19-039 i/a/o \$5,193,000	0	TBD
<b>Total</b>	<b>\$ 22,635,323</b>	

**XI. CONTACTS**

<b>Legal Applicant</b>	
Entity Name	Paducah McCracken County Joint Sewer Agency
Authorized Official	Justin Hancock (Board Chairman)
County	McCracken
Email	justin@hancocks-paducah.com
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<b>Applicant Contact</b>	
Name	John Hodges
Organization	Paducah McCracken County Joint Sewer Agency
Email	jhodges@jointsewer.com
Phone	270-575-0056
Address	621 Northview St Paducah, KY 42001

**Project Administrator**

Name	Josh Webb
Organization	Paducah McCracken County Joint Sewer Agency
Email	jwebb@jointsewer.com
Phone	270-575-0056
Address	621 Northview St Paducah, KY 42001

**Consulting Engineer**

PE Name	Michael Alan Hansen
Firm Name	HDR Engineering
Email	mike.hansen@hdrinc.com
Phone	270-443-7600
Address	2550 Irvin Cobb Dr. Paducah, KY 42003

**XII. RECOMMENDATIONS**

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



**PADUCAH MCCRACKEN COUNTY JOINT SEWER AGENCY  
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	13,992,586	13,850,539	12,978,262	13,286,107	13,580,833	13,776,134	13,945,661	14,105,649
Other Assets	67,910,623	68,436,117	72,089,951	75,762,676	85,815,865	87,260,667	85,876,997	84,407,483
<b>Total</b>	<b>81,903,209</b>	<b>82,286,656</b>	<b>85,068,213</b>	<b>89,048,783</b>	<b>99,396,698</b>	<b>101,036,801</b>	<b>99,822,658</b>	<b>98,513,132</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	2,581,348	2,561,594	1,831,780	1,840,638	1,896,576	2,326,936	2,365,825	2,405,315
Long Term Liabilities	23,890,401	24,573,136	26,720,572	27,995,144	36,787,275	37,756,594	36,099,924	34,413,364
<b>Total Liabilities</b>	<b>26,471,749</b>	<b>27,134,730</b>	<b>28,552,352</b>	<b>29,835,782</b>	<b>38,683,851</b>	<b>40,083,530</b>	<b>38,465,749</b>	<b>36,818,679</b>
<b>Net Assets</b>	<b>55,431,460</b>	<b>55,151,926</b>	<b>56,515,861</b>	<b>59,213,001</b>	<b>60,712,847</b>	<b>60,953,271</b>	<b>61,356,909</b>	<b>61,694,453</b>
<b>Cash Flow</b>								
Revenues	7,407,866	7,948,802	9,142,934	9,142,934	9,142,934	9,142,934	9,142,934	9,142,934
Operating Expenses	4,337,519	4,569,420	4,454,330	4,543,417	4,634,285	4,726,971	4,821,510	4,917,940
Other Income	15,060	16,101	85,832	85,832	85,832	85,832	85,832	85,832
<b>Cash Flow Before Debt Service</b>	<b>3,085,407</b>	<b>3,395,483</b>	<b>4,774,436</b>	<b>4,685,349</b>	<b>4,594,481</b>	<b>4,501,795</b>	<b>4,407,256</b>	<b>4,310,826</b>
<b>Debt Service</b>								
Existing Debt Service	1,375,321	1,556,594	1,604,158	1,606,436	1,647,225	2,229,625	2,229,483	2,228,436
Proposed KIA Loan A19-044	0	0	0	0	0	155,809	155,809	155,809
Proposed KIA Loan A19-039	0	0	0	0	0	163,349	326,698	326,698
<b>Total Debt Service</b>	<b>1,375,321</b>	<b>1,556,594</b>	<b>1,604,158</b>	<b>1,606,436</b>	<b>1,647,225</b>	<b>2,548,783</b>	<b>2,711,990</b>	<b>2,710,943</b>
<b>Cash Flow After Debt Service</b>	<b>1,710,086</b>	<b>1,838,889</b>	<b>3,170,278</b>	<b>3,078,913</b>	<b>2,947,256</b>	<b>1,953,012</b>	<b>1,695,266</b>	<b>1,599,883</b>
<b>Ratios</b>								
Current Ratio	5.4	5.4	7.1	7.2	7.2	5.9	5.9	5.9
Debt to Equity	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.6
Days Sales in Accounts Receivable	24.4	19.4	21.0	21.0	21.0	21.0	21.0	21.0
Months Operating Expenses in Unrestricted Cash	15.8	17.2	13.1	13.6	14.1	14.3	14.5	14.6
Debt Coverage Ratio	2.2	2.2	3.0	2.9	2.8	1.8	1.6	1.6

<b>EXECUTIVE SUMMARY</b> <b>KENTUCKY INFRASTRUCTURE AUTHORITY</b> <b>FUND F, FEDERALLY ASSISTED DRINKING WATER</b> <b>REVOLVING LOAN FUND</b>		Reviewer Date KIA Loan Number WRIS Number	Meili Sun May 7, 2019 F19-041 WX21089101	
BORROWER	CITY OF SOUTH SHORE GREENUP COUNTY			
BRIEF DESCRIPTION				
This project will construct a new building for storage, office lab, green sand filters, and well connection to the chlorine room. The existing pressure filters, chemical feed systems and high service pumps are past their useful life in need of replacement. A new water treatment plant control building will replace the existing dilapidated facility that, due to its age, has severe structural issues. It will house a filter room, a chemical feed rooms, a lab, offices, restrooms, a mechanical room and an electrical room. It will be designed with an electrical switch gear to allow for quick connection of a portable generator during prolonged power outages and be wired for a permanent generator in the future. The WTP site will be fenced for security.				
PROJECT FINANCING		PROJECT BUDGET		
Fund F Loan	\$3,051,133	RD Fee %	Actual %	
		Administrative Expenses	\$40,000	
		Legal Expenses	5,000	
		Land, Easements	5,000	
		Planning	30,000	
		Eng - Design / Const	7.4% 6.8% 177,000	
		Eng - Insp	5.5% 5.3% 137,000	
		Eng - Other	62,000	
		Construction	2,360,000	
		Contingency	235,133	
TOTAL	\$3,051,133	TOTAL	\$3,051,133	
REPAYMENT	Rate Term	0.50% 20 Years	Est. Annual Payment 1st Payment 6 Mo. after first draw \$96,495	
PROFESSIONAL SERVICES	Engineer Bond Counsel	HMB Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening Construction Start Construction Stop	Mar-20 May-20 Jun-21		
DEBT PER CUSTOMER	Existing Proposed	\$767 \$2,499		
OTHER DEBT	See Attached			
RESIDENTIAL RATES	Current Additional	<u>Users</u> 2,166 0	<u>Avg. Bill</u> \$31.24 (for 4,000 gallons) \$31.24 (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	253,826	58,939	194,887	4.3
Audited 2017	228,833	105,165	123,668	2.2
Audited 2018	251,742	104,990	146,752	2.4
Projected 2019	239,884	101,462	138,422	2.4
Projected 2020	244,587	101,532	143,055	2.4
Projected 2021	247,184	113,628	133,557	2.2
Projected 2022	244,476	173,971	70,506	1.4
Projected 2023	249,466	222,218	27,248	1.1

Reviewer: Meili Sun  
Date: May 7, 2019  
Loan Number: F19-041

**KENTUCKY INFRASTRUCTURE AUTHORITY  
DRINKING WATER STATE REVOLVING FUND (FUND F)  
CITY OF SOUTH SHORE, GREENUP COUNTY  
PROJECT REVIEW  
WX21089101**

**I. PROJECT DESCRIPTION**

The City of South Shore (“the City”), is requesting a Fund F loan for \$3,051,133. The purpose of this project is to improve drinking water quality in Greenup County by constructing a new water treatment plant building that will replace existing facilities to improve drinking water system reliability, treatment efficiency and maintain or exceed water quality compliance.

This project will construct a new 1.0 MGD water treatment plant control building to replace the dilapidated 1.0 MGD facility. The new building will be approximately 3,000 square feet in size to house a filter room, chemical feed rooms, a lab, offices, restrooms, a mechanical room and an electrical room. There will be three filters in series with provisions for a fourth one in the future if necessary. The new filter system will be designed to take up to two filters out of service for backwashing, maintenance or repairs while still operating the other filter(s). The plant will be controlled by a Programmable Logic Computer (PLC) which will automatically make adjustments to the treatment process to allow for efficient use of chemicals. The new pumps will have premium efficiency motors and Variable Frequency Drives to reduce electrical costs. An electrical switch gear will be installed to allow for quick connection of a portable generator during prolonged power outages and be wired for a permanent generator in the future. The plant site will be fenced in for security.

The City produces 92% and purchases 8% of its water supply from the Garrison Quincy KY-O-Heights Water District, which is a PSC regulated entity. The project will improve drinking water quality for approximately 2,200 customers in the City of South Shore and the outlying areas of northwestern Greenup and northeastern Lewis Counties.

## II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 40,000
Legal Expenses	5,000
Land Easements	5,000
Planning	30,000
Engineering Fees – Design	141,600
Engineering Fees – Construction	35,400
Engineering Fees – Inspection	137,000
Engineering Fees – Other	62,000
Construction	2,360,000
Contingency	235,133
<b>Total</b>	<b>\$ 3,051,133</b>

## III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
<b>Fund F Loan</b>	<b>\$ 3,051,133</b>	<b>100%</b>

## IV. KIA DEBT SERVICE

Construction Loan	\$ 3,051,133
Principal Forgiveness	1,300,000
Amortized Loan Amount	\$ 1,751,133
Interest Rate	0.50%
Loan Term (Years)	20
Estimated Annual Debt Service	\$ 92,117
Administrative Fee (0.25%)	4,378
<b>Annual Debt Service</b>	<b>\$ 96,495</b>

## V. PROJECT SCHEDULE

Bid Opening	March 2020
Construction Start	May 2020
Construction Stop	June 2021

## VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

### A) Customers

Customers	Current
Residential	2,026
Commercial	137
Industrial	3
Total	2,166

### B) Rates

	Water Inside City		Water Outside City	
	Proposed	Current	Proposed	Current
Date of Last Rate Increase	07/01/19	07/01/17	07/01/19	07/01/17
Minimum 1,000 Gallons	\$13.84	\$13.57	\$15.84	\$15.57
Next 9,000	5.80	5.69	5.92	5.79
Over 10,000	4.10	4.02	4.30	4.22
Cost for 4,000 gallons	\$31.24	\$30.64	\$33.60	\$32.94
Increase %	2.0%		2.0%	
Affordability Index (Rate/MHI)	1.1%	1.1%	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 4,582 with a Median Household Income (MHI) of \$34,724. The median household income for the Commonwealth is \$44,811. The project will qualify for a 0.50% interest rate and \$1,300,000 in principal forgiveness with its Median House Income below 80% of the State MHI.

Year	Population		County	% Change	County Unemployment	
	City	% Change			Date	Rate
1980	1,525		39,132		June 2005	6.7%
1990	1,318	-13.6%	36,742	-6.1%	June 2010	11.1%
2000	1,226	-7.0%	36,891	0.4%	June 2015	7.7%
2010	1,122	-8.5%	36,910	0.1%	June 2018	7.1%
Current	1,035	-7.8%	36,255	-1.8%		
Cumulative %		-32.1%		-7.4%		

## **VIII. 2018 CAPITALIZATION GRANT EQUIVALENCIES**

- 1) Green Project Reserve – The Drinking Water capitalization grant does not contain a “green” requirement.
- 2) Additional Subsidization – Principal forgiveness of 50% of the assistance amount, not to exceed \$1,300,000, will be credited to the loan balance upon release of liens on all contracts and disbursement of the final draw request by KIA to the borrower.

## **IX. FINANCIAL ANALYSIS**

Financial information was obtained from the audited financial statements for the years ended June 30, 2016 through June 30, 2018. The Revenues reflected in the Cash Flow reflect the City’s Enterprise Funds, which account for the activities of water and sewer operations. The sewer component has been extracted from the financial statements for the purpose of this analysis. The non-cash impact of GASB 68 - Accounting and Financial Reporting for Pensions and GASB 75 - Other Postemployment Benefit is not applicable as the City does not report Pensions and OPEB liabilities.

### **HISTORY**

Revenues increased 6.3% from \$789,906 in 2016 to \$839,877 in 2018 due to the rate increase effective July, 2017. Operating expenses went up 10.0% from \$538,824 to \$592,912 during the same period as a result of higher Repair and Maintenance costs. The debt coverage ratio was 4.3, 2.2 and 2.4 for 2016, 2017, and 2018 respectively.

The City recently approved a CPI rate adjustment that will begin in 2019.

The 2018 Balance Sheet reflects 52.5 days sales in accounts receivable, 6.8 months of operating expenses in unrestricted cash, a current ratio of 4.7, and a debt to equity ratio of 1.9.

### **PROJECTIONS**

Projections are based on the following assumptions:

- 1) The approved CPI rate adjustment will take effect on July 1 annually.
- 2) Water revenues will grow approximately 2% each year for the CPI adjustment.
- 3) Expenses will increase 2% annually for inflation.
- 4) Debt coverage ratio is 1.4 in 2022 when principal and interest repayments begin.
- 5) South Shore has an existing KIA loan F 18-019 that has not begun repayment. Debt payment and replacement reserve payments are projected to begin in December 2021 and have been included in the financial analysis.

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% (\$152,000 total) of the final amount borrowed (prior to principal forgiveness) to be funded annually (\$7,600 yearly) each December 1 for 20 years and maintained for the life of the loan. An additional \$2,200 has been included to represent the replacement reserve payments for loan F 18-019.

## X. DEBT OBLIGATIONS

	Outstanding	Maturity
KIA Loan B12-09	\$ 1,662,231	2035
KIA Loan F18-019 i.a.o. \$878,000		TBD
<b>Total</b>	<b>\$ 1,662,231</b>	

## XI. CONTACTS

<b>Legal Applicant</b>	
Name	City of South Shore
Authorized Official	Cheryl A. Moore, Mayor
Email	mayorcoss@windstream.net
Phone	(606) 932-6144
County	Greenup
Address	69 Narco Dr, PO Box 516 South Shore, KY 41175

<b>Project Contact - Applicant</b>	
Name	Linda Potter, City Clerk
Organization	City of South Shore
Email	cityoss@windstream.net
Phone	(606) 932-6144
Address	69 Narco Dr, PO Box 516 South Shore, KY 41175

<b>Project Administrator</b>	
Name	Bryan Kirby, President
Organization	Ceda, Inc
Email	bkirby1953@gmail.com
Phone	(859) 624-3396
Address	P.O. Box 855 Richmond, KY 40476

**Consulting Engineer**

PE Name	Ray Bascom, PE
Firm Name	HMB
Email	rbascom@hmbpe.com
Phone	(502) 695-9800
Address	3 HMB Circle Frankfort, KY 40601

**XII. RECOMMENDATIONS**

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



**CITY OF SOUTH SHORE  
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	243,483	347,611	456,900	484,544	515,555	544,767	561,368	569,417
Other Assets	2,318,836	2,251,986	2,182,940	2,193,123	3,085,012	6,122,685	5,990,106	5,822,922
<b>Total</b>	<b>2,562,319</b>	<b>2,599,597</b>	<b>2,639,840</b>	<b>2,677,667</b>	<b>3,600,567</b>	<b>6,667,452</b>	<b>6,551,474</b>	<b>6,392,339</b>
<b>Liabilities &amp; Equity</b>								
Current Liabilities	108,047	108,048	96,689	97,513	98,388	99,269	100,155	101,046
Long Term Liabilities	1,785,685	1,700,948	1,617,786	1,617,786	2,405,883	5,366,438	5,297,129	5,292,741
<b>Total Liabilities</b>	<b>1,893,732</b>	<b>1,808,996</b>	<b>1,714,475</b>	<b>1,715,299</b>	<b>2,504,271</b>	<b>5,465,707</b>	<b>5,397,284</b>	<b>5,393,787</b>
<b>Net Assets</b>	<b>668,587</b>	<b>790,601</b>	<b>925,365</b>	<b>962,368</b>	<b>1,096,296</b>	<b>1,201,745</b>	<b>1,154,190</b>	<b>998,552</b>
<b>Cash Flow</b>								
Revenues	789,906	773,938	839,877	839,877	856,675	873,809	891,285	909,111
Operating Expenses	538,824	547,521	592,912	604,770	616,865	631,402	651,586	664,422
Other Income	2,744	2,416	4,777	4,777	4,777	4,777	4,777	4,777
<b>Cash Flow Before Debt Service</b>	<b>253,826</b>	<b>228,833</b>	<b>251,742</b>	<b>239,884</b>	<b>244,587</b>	<b>247,184</b>	<b>244,476</b>	<b>249,466</b>
<b>Debt Service</b>								
Existing Debt Service	58,939	105,165	104,990	101,462	101,532	113,628	125,723	125,723
Proposed KIA Loan	0	0	0	0	0	0	48,248	96,495
<b>Total Debt Service</b>	<b>58,939</b>	<b>105,165</b>	<b>104,990</b>	<b>101,462</b>	<b>101,532</b>	<b>113,628</b>	<b>173,971</b>	<b>222,218</b>
<b>Cash Flow After Debt Service</b>	<b>194,887</b>	<b>123,668</b>	<b>146,752</b>	<b>138,422</b>	<b>143,055</b>	<b>133,557</b>	<b>70,506</b>	<b>27,248</b>
<b>Ratios</b>								
Current Ratio	2.3	3.2	4.7	5.0	5.2	5.5	5.6	5.6
Debt to Equity	2.8	2.3	1.9	1.8	2.3	4.5	4.7	5.4
Days Sales in Accounts Receivable	51.8	53.4	52.5	52.5	52.5	52.5	52.5	52.5
Months Operating Expenses in Unrestricted Cash	2.9	5.1	6.8	7.2	7.6	8.0	8.1	8.0
Debt Coverage Ratio	4.3	2.2	2.4	2.4	2.4	2.2	1.4	1.1