

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

**THE APPLICATION OF MONROE COUNTY)
WATER DISTRICT TO MODIFY THE ORDER)
OF MARCH 18, 2016 IN CASE NO. 2015-00315)
TO REFLECT REVISIONS IN THE DESIGN) **CASE NO. 2018-00148**
OF THE APPROVED WATER TREATMENT)
FACILITY AND IN THE ASSISTANCE)
AGREEMENT WITH THE KENTUCKY)
INFRASTRUCTURE AUTHORITY)**

APPLICATION

Pursuant to KRS 278.020(1), KRS 278.300, and KRS 278.390, Monroe County Water District (“Monroe District”) requests the Public Service Commission (“Commission”) modify its Order of March 18, 2016 in Case No. 2015-00315¹ to permit revisions to the design of the approved water treatment facility and to authorize an increase in the amount that Monroe District may borrow under the approved Assistance Agreement with the Kentucky Infrastructure Authority (“KIA”).

In support of its Application, Monroe District provides the following:

A. General Information

1. The full name and mailing address of Monroe District is: Monroe County Water District, 205 Capp Harlan Road, Tompkinsville, Kentucky 42167. Its e-mail address is mcwdr@scrtc.com.

2. Copies of all orders, pleadings and other communications related to this proceeding should be directed to:

¹ *The Application of Monroe County Water District For Authorization To Enter An Assistance Agreement With the Kentucky Infrastructure Authority and For a Certificate of Public Convenience To Construct a Water Treatment Facility, Elevated Storage Tank, and Water Transmission and Distribution Mains, Case No. 2015-00315 (Ky. PSC filed Feb. 18, 2016).*

Richard O. Ross
General Manager
205 Capp Harlan Road
Tompkinsville, KY 42167
(270) 487-0932
mcwdr@scrtc.com

Gerald E. Wuetcher
Stoll Keenon Ogden PLLC
2100 West Vine Street, Ste 2100
Lexington, KY 40507-1801
(859) 231-3017
gerald.wuetcher@skofirm.com²

3. Monroe District is not a corporation, limited liability company, or partnership and has no articles of incorporation or partnership agreement.

4. Monroe District is a water district created under the provisions of KRS Chapter 74.

5. Monroe District was created by an Order of Monroe County Court entered April 9, 1975. A copy of this Order is attached as **Exhibit 1** to this Application.

6. Monroe District engages in the distribution and sale of water to approximately 3,303 residential customers and 174 commercial customers in Monroe County, Kentucky.³ Its territory includes the City of Gamaliel, Kentucky⁴ and the unincorporated areas of Monroe County, except those areas that Fountain Run Water District serves. Monroe District provides water for resale to the City of Glasgow and Fountain Run Water District.

² On May 1, 2018 pursuant to 807 KAR 5:001, Section 8, Monroe District notified the Commission of its election of the use of electronic filing procedures for this proceeding.

³ *Annual Report of Monroe County Water District to the Public Service Commission of the Commonwealth of Kentucky for the Calendar Year Ended December 31, 2017* (“2017 Annual Report”) at Ref Page 27.

⁴ Monroe District acquired Gamaliel’s facilities and the right to provide water service within that city’s corporate limits in 1978.

B. Background

7. On February 18, 2016, Monroe District applied to the Commission for a certificate of public convenience and necessity to construct a 2.0 million gallon per day (“MGD”) water treatment facility; approximately 24,715 linear feet of 16-inch ductile iron, and 29,475 linear feet of 10-inch polyvinylchloride (“PVC”) water main; and a 600,000 gallon elevated-water storage tank. It also applied for authorization to enter into an assistance agreement with KIA to borrow an amount not to exceed \$15,564,032. The Commission docketed this application as Case No. 2015-00315. Monroe District incorporates by reference that application.

8. On March 18, 2018, the Commission issued an Order in Case No. 2015-00315 in which it found that the public convenience and necessity required the proposed facilities and issued a certificate of public convenience and necessity for those facilities.⁵

9. In the same Order, the Commission further found that the proposed assistance agreement was for a lawful object within Monroe District’s corporate purposes, was necessary, appropriate for and consistent with Monroe District’s proper performance of its service to the public and would not impair Monroe District’s ability to perform that service, and is reasonably necessary and appropriate for such purpose. It authorized Monroe District to enter the proposed assistance agreement and to borrow from KIA an amount not to exceed \$15,564,032. It expressly limited Monroe District’s use of those funds to the construction of the proposed facilities.⁶

10. Monroe District executed an Assistance Agreement with the KIA and on June 15, 2016 filed a copy of this Agreement with the Commission. It incorporates by reference that Agreement into this Application.

⁵ Order of March 18, 2016 at 7.

⁶ *Id.* at 7-8.

11. On or about July 1, 2016, Monroe District began construction of the facilities for which the Commission had issued a certificate of public convenience and necessity in Case No. 2015-00315.

C. Modification of Certificate of Public Convenience and Necessity

12. Monroe District requests that the Commission modify its Order of March 18, 2016 to authorize the construction of a one-million gallon flocculation and sedimentation basin at the water treatment plant site to provide for additional redundancy in its water treatment processes and to comply with the regulations of the Kentucky Division of Water (“KDOW”).

13. In its Order of March 18, 2018, the Commission approved Monroe District’s construction of a 2.0 million water treatment facility. The plans and specifications for the facility, which were included as exhibits in Monroe District’s application for a certificate of public convenience and necessity,⁷ provided for only one flocculation and sedimentation train. The KDOW had reviewed and approved these plans and specifications with respect to sanitary features of design prior to Monroe District’s application to the Commission. A copy of the KDOW’s approval of these plans and specification was also included in Monroe District’s application to the Commission.⁸

14. Flocculation and sedimentation are critical stages in the water treatment process. In these two stages, most solids are removed from raw water and the raw water is prepared for effective filtration of fine particles.

15. On February 6, 2018, during a visit to Monroe District’s water treatment facility, KDOW representatives first questioned whether the water treatment facility had adequate redundancy in the initial stages of its treatment process. A subsequent meeting between representatives of KDOW and Monroe District was held on February 20, 2018, at which KDOW

⁷ Case No. 2015-00315, Application at Exhibits 3 and 4.

⁸ *Id.* at Exhibit 14.

representatives suggested that Monroe District's water treatment plant required redundant facilities to comply with KDOW regulations.

16. At a meeting between Monroe District representatives and KDOW officials on March 29, 2018, KDOW officials advised that Monroe District's water treatment facility did not comply with redundancy requirements contained in 401 KAR 8:100 and that Monroe District must take action to correct this deficiency before the facility could begin treating water. They stated that operation of the water treatment facility without such corrective action would violate KDOW regulations and would subject Monroe District to enforcement proceedings. The KDOW confirmed this position by letter of April 4, 2018, a copy of which is attached as **Exhibit 2** to this Application.

17. To address KDOW's concerns, Monroe District proposed to construct a one-million gallon flocculation and sedimentation basin to supplement the water treatment plant's Actiflo treatment process. KDOW officials indicated that the Energy and Environment Cabinet would accept the proposal and permit Monroe District's water treatment plant to begin operations. On April 20, 2018, Monroe District submitted proposed plans and specifications for a one-million gallon flocculation and sedimentation basin to KDOW for approval. At KDOW's request, Monroe District on April 28, 2018 executed a mutual aid agreement with Tompkinsville that requires each water utility to serve as a reliable source of water to the other should either experience a temporary loss of safe drinking water as a result of an emergency. A copy of this agreement is found at **Exhibit 3** of this Application.

18. On May 3, 2018, the Energy and Environment Cabinet and Monroe District entered into an Agreed Order permitting Monroe District to begin operating its water treatment plant. Under the terms of this Order, Monroe District must develop and submit to KDOW within 30 days a corrective action plan for its water treatment plant's non-compliance with 401 KAR

8:100 and must remedy the non-compliance by December 31, 2018. Until the non-compliance is remedied, Monroe District must operate under the terms of its mutual aid agreement with Tompkinsville. A copy of the Agreed Order is found at **Exhibit 4** of this Application.

19. On May 11, 2018, Monroe District submitted its corrective action plan to the Energy and Environment Cabinet. A copy of this plan is found at **Exhibit 5** of this Application. The corrective action plan is still under review. Monroe District will notify the Commission upon notice of the Energy and Environment Cabinet's final action on the plan.

20. A copy of the plans and specifications for the flocculation and sedimentation basin is included in this Application as **Exhibit 6** and **Exhibit 7** respectively.

21. A description of the location of the proposed flocculation and sedimentation basin and a map depicting this location are included in this Application as **Exhibit 8** and **Exhibit 9** respectively.

22. A copy of the hydraulic calculations upon which the proposed flocculation and sedimentation basin design is based is included in this Application as **Exhibit 10**.

23. On April 20, 2018, Monroe District applied to the KDOW for approval of the plans and specifications for the proposed flocculation and sedimentation basin. KDOW has not yet issued a final decision on Monroe District's Construction Application for Drinking Water Treatment, a copy of which is included in this Application as **Exhibit 11**.⁹

24. The proposed flocculation and sedimentation basin requires no regulatory approvals or permits except for the KDOW's approval of the plans and specifications and this Commission's approval.

25. The proposed flocculation and sedimentation basin will be constructed as part of Contract I: Water Treatment Plant, which Monroe District executed after following the

⁹ The plans and specifications are not included in the Exhibit 11, but are found at Exhibits 6 and 7 respectively.

procedures set forth in KRS 424.260 and which the Commission reviewed in Case No. 2015-00315. Monroe District has executed Change Order No. 8 to Contract I to provide for the construction of the proposed flocculation and sedimentation basin. A copy of Change Order No. 8 is attached to this Application as **Exhibit 12**. The minutes of the meeting of April 9, 2018 of the Monroe District Board of Commissioners, in which Monroe District's Commissioners authorized Change Order No. 8, are attached to this Application as **Exhibit 13**.

26. The total estimated cost of the proposed flocculation and sedimentation basin is \$691,551. Monroe District originally estimated the total cost of the facilities approved in Case No. 2015-00315 to be \$15,962,694. Based upon actual cost to date and the estimated cost of the proposed flocculation and sedimentation basin, the total project cost will be \$16,074,041. This revised estimate is approximately 0.7 percent greater than the original estimate.

27. Monroe District originally proposed to finance the construction of the total project with a loan of \$15,564,032 from the KIA's Fund F Infrastructure Revolving Loan Program and with appropriated funds from the Kentucky General Assembly of \$320,096 and \$78,266.¹⁰ Given the additional cost related to the addition of the proposed flocculation and sedimentation basin, Monroe District now intends to borrow \$15,675,679 from KIA's Fund F Infrastructure Revolving Loan Program. It has requested that the KIA increase its loan by approximately \$111,347 to address the additional costs. On May 17, 2018, the KIA approved this request. A copy of KIA's written approval is found at **Exhibit 14** of this Application.

28. The construction of the proposed flocculation and sedimentation basin will not affect the total annual cost of operating the facilities approved in Case No. 2015-00315, which was previously estimated at \$328,141. A schedule of these costs is set forth in **Exhibit 15** of this

¹⁰ See 2014 Ky. Acts 667-668 (Ky. Legislative Research Commission Electronic Version).

Application. These costs will be offset by a reduction in annual purchased water costs of approximately \$821,250.

29. Construction of the proposed flocculation and sedimentation basin will not result in the wasteful duplication of utility facilities or inefficient investment.

30. The proposed flocculation and sedimentation basin will not conflict with the existing certificates or service of other utilities operating in the same area and under the Commission's jurisdiction that are in the general or contiguous area in which Monroe District renders water service.

31. Monroe District is supporting this Application with the testimony of Robert D. Stigall, President, Stigall Engineering Associates. In his testimony, Mr. Stigall describes the circumstances that led to the decision to construct the proposed flocculation and sedimentation basin. A copy of his testimony is attached as **Exhibit 16** of this Application.

C. Authorization to Enter Supplemental Assistance Agreement

32. In its Order of March 18, 2016, the Commission authorized Monroe District to enter an assistance agreement with the KIA to borrow an amount not to exceed \$15,564,032. This Assistance Agreement requires that the loan proceeds be repaid at an interest rate of 0.75 percent per annum and over a period not to exceed 30 years from the date on which the financed facilities begin operation. Interest on the loan began accruing when Monroe District began drawing funds from the KIA. The Assistance Agreement provides that 30 percent of the principal amount, not to exceed \$2,904,091, will be forgiven over the life of the loan. The Assistance Agreement is secured by a pledge of revenues. Additional details regarding the loan are set forth in the Conditional Commitment Letter of December 7, 2015, a copy of which is attached as **Exhibit 17** to this Application.

33. To construct the proposed flocculation and sedimentation basin, Monroe District has requested that KIA increase the amount of loan by \$111,347 from \$15,564,032 to \$15,675,378. The KIA has approved this request but requires Monroe District to execute a supplemental assistance agreement to reflect the revision to the original loan amount. A copy of the KIA's approval is attached as **Exhibit 14** to this Application.

34. A description of Monroe District's water system and its property, stated at original cost by accounts, is contained in *Annual Report of Monroe County Water District to the Public Service Commission for the Year Ending December 31, 2017* ("2017 Annual Report"), a copy of which Monroe District has previously filed with the Commission and which is incorporated by reference into this Application.

35. Monroe District does not propose to issue any stock or bonds.

36. No proceeds from the Assistance Agreement or supplement agreements to the approved Assistance Agreement will be used to refund outstanding obligations.

37. A copy of Monroe District's written notification to the State Local Debt Officer regarding its intent to enter a supplemental assistance agreement with the KIA is attached as **Exhibit 18** to this Application.

38. For the 12-month period ending December 31, 2017, Monroe District had less than \$5,000,000 in gross annual revenues.

39. Pursuant to 807 KAR 5:001, Section 18(2)(a), a financial exhibit containing the following information is provided:

a. Monroe District's *2017 Annual Report* is incorporated by reference into this Application.

b. No material changes have occurred in Monroe District's financial condition since December 31, 2017.

c. Monroe District is not authorized to issue any stock nor has it issued any stock.

d. There are no trust deeds or mortgages applicable.

e. Maps and plans of the proposed construction are found at **Exhibit 6** and **Exhibit 9** of this Application respectively.

f. A detailed estimate of the acquired property, arranged according to the Uniform System of Accounts for Class A/B Water Districts and Associations, is attached to this Application as **Exhibit 19**.

40. The increase in the loan amount will not require Monroe District to seek an adjustment of its rates for service.

41. Monroe District's execution of a supplemental assistance agreement with KIA to borrow an additional \$111,347, increasing the total amount of its loan from KIA to \$15,675,378, is for a lawful object within Monroe District's corporate purposes, is necessary, appropriate for and consistent with Monroe District's proper performance of its service to the public and will not impair Monroe District's ability to perform that service, and is reasonably necessary and appropriate for such purpose.

D. Requested Relief

WHEREFORE, Monroe County Water District requests that the Commission:

1. Modify the Order of March 18, 2016 in Case No. 2015-00315 to authorize Monroe District to construct the proposed one million gallon sediment and flocculation sedimentation basin;

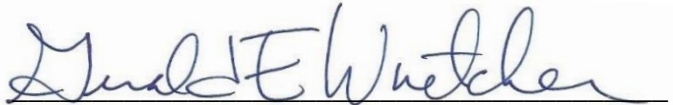
2. Modify the Order of March 18, 2016 in Case No. 2015-00315 to authorize Monroe District to borrow from KIA a sum no greater than \$15,675,378 and to enter any

supplement agreements to the previously approved Assistance Agreement necessary to borrow this amount;

3. Enter an Order granting the requested relief no later than June 1, 2018; and,
4. Grant any and all such other relief to which Monroe District may be entitled.

Dated: May 22, 2018

Respectfully submitted,

A handwritten signature in blue ink that reads "Gerald E. Wuetcher". The signature is written in a cursive style and is positioned above a horizontal line.

Gerald E. Wuetcher
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Fax: (859) 259-3517
gerald.wuetcher@skofirm.com

Counsel for Monroe County Water District

COMMONWEALTH OF KENTUCKY)
) SS
COUNTY OF MONROE)

The undersigned, Mark Williams, being duly sworn, deposes and states that he is the Chairman of Monroe County Water District, the Applicant in the above proceedings; that he has read this Application and has noted its contents; that the same is true of his own knowledge, except as to matters which are therein stated on information or belief, and as to those matters, he believes same to be true.

IN TESTIMONY WHEREOF, witness the signature of the undersigned on this May 21, 2018.

Mark Williams
Mark Williams
Chairman
Monroe County Water District

Subscribed and sworn to before me by Mark Williams, Chairman, Monroe County Water District, on this May 21, 2018.

Jana Dubree
Notary Public
Notary ID: 441497
My Commission Expires: May 16, 2019

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Monroe District's May 22, 2018 electronic filing of this Application is a true and accurate copy of the same document being filed in paper medium; that the electronic filing has been transmitted to the Commission on May 22, 2018; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that an original paper medium of the Application will be delivered to the Commission on or before May 24, 2018.

A handwritten signature in blue ink, reading "Gerald E. Wuetcher", is written over a horizontal line.

Gerald E. Wuetcher

FILING REQUIREMENTS

FILING REQUIREMENTS FOR AN APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY

Source Authority	Requirement	Location
807 KAR 5:001, § 14(1)	Applicant's name, mailing address and e-mail address	Page 1, Para 1
807 KAR 5:001, § 14(1)	Statutory Reference – KRS 278.020	Page 1
807 KAR 5:001, § 4(3)	Signature of Applicant's Attorney	Page 11
807 KAR 5:001, § 4(3)	Name, Address, Telephone Number, Fax Number, and e-mail address of Applicant's Attorney	Page 11
807 KAR 5:001, § 14(2)	If Applicant is corporation: State and date of incorporation, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 14(3)	If Applicant is a limited liability company: State and date of organization, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 14(4)	If the Applicant is a limited partnership: a certified copy of limited partnership agreement and all amendments or statement identifying prior Commission proceedings in which limited partnership agreement and all amendments filed	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 15(2)(a)	The facts relied upon to show that the public convenience and necessity requires the proposed construction	Pages 4-6, Paras 12-19
807 KAR 5:001, § 15(2)(b)	Copies of franchises or permits for the proposed construction or extension	Page 6, Paras 23-24 Motion for Deviation
807 KAR 5:001, § 15(2)(c)	A full description of the proposed location, route, or routes of the proposed construction or extension, including a description of the manner in which same will be constructed, and the names of all public utilities, corporations, or persons with whom the proposed construction or extension is likely to compete	Page 6, Para 21 Exhibit 8

Source Authority	Requirement	Location
807 KAR 5:001, § 15(2)(d)1	Maps to suitable scale showing the location or route of the proposed construction or extension, as well as the location to scale of like facilities owned by others located anywhere within the map area with adequate identification as to the ownership of the other facilities (Only one copy submitted pursuant to 807 KAR 5:001, Section 8)	Page 6, Para 21 Exhibit 9
807 KAR 5:001, § 15(2)(d)2	Plans and specifications and drawings of the proposed plant, equipment, and facilities	Page 6, Para 20 Exhibits 6 and 7
807 KAR 5:001, § 15(2)(e)	The manner in detail in which the Applicant proposes to finance the proposed construction or extension.	Page 7, Para 27
807 KAR 5:001, § 15(2)(f)	An estimated annual cost of operation after the proposed facilities are placed into service	Page 7, Para 28 Exhibit 15
807 KAR 5:001, § 4(13)	Engineering plans, specifications, drawings, plats and reports for the proposed construction or extension prepared by a registered engineer, must be signed, sealed, and dated by an engineer registered in Kentucky	Exhibits 6 and 7

**FILING REQUIREMENTS FOR AN APPLICATION FOR A
AUTHORITY TO ISSUE EVIDENCES OF INDEBTEDNESS**

Source Authority	Requirement	Location
807 KAR 5:001, § 14(1)	Applicant's name, mailing address and e-mail address	Page 1, Para 1
807 KAR 5:001, § 14(1)	Statutory Reference – KRS 278.300	Page 1
807 KAR 5:001, § 4(3)	Signature of Applicant's Attorney	Page 11
807 KAR 5:001, § 4(3)	Name, Address, Telephone Number, Fax Number, and e-mail address of Applicant's Attorney	Page 11
807 KAR 5:001, § 14(2)	If Applicant is corporation: State and date of incorporation, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 14(3)	If Applicant is a limited liability company: State and date of organization, attestation of good standing in state of incorporation, statement regarding authorization to transact business in Kentucky	Page 2, Para 3 Not Applicable
807 KAR 5:001, § 14(4)	If the Applicant is a limited partnership: a certified copy of limited partnership agreement and all amendments or statement identifying prior Commission proceedings in which limited partnership agreement and all amendments filed	Page 2, Para 3 Not Applicable
KRS 278.300(2)	Application is made under oath and signed on utility's behalf by its president, or by a vice president, auditor, comptroller or other executive officer having knowledge of the matters set forth and duly designated by the utility	Page 12
807 KAR 5:001, § 18(1)(a)	Information required by 807 KAR 5:001, § 14	See Above
807 KAR 5:001, § 18(1)(b)	Description of Applicant's property and the field of its operation	Page 9, Para 34
807 KAR 5:001, § 18(1)(c)	Description of amount and kinds of stock to be issued	Page 9, Para 35 Not Applicable
807 KAR 5:001, § 18(1)(c)	Description of amount, terms and interest rate of bond or note	Page 8, Para 32
807 KAR 5:001, § 18(1)(c)	Description of how bond or note will be secured	Page 8, Para 32
807 KAR 5:001, § 18(1)(d)	Statement of how proceeds are to be used	Page 3, Paras 27 and 33
807 KAR 5:001, § 18(1)(e)	If proceeds will be used to acquire, construct, improve, or extend property: a detailed description of property and all contracts	Page 4, Para 12 Page 6, Paras 20, 21, 25 Page 8, Para 31 Exhibits 6, 7, 11, 12 and 16
807 KAR 5:001, § 18(1)(f)	Requirements if proceeds are to refund outstanding obligations	Page 9, Para 36 Not Applicable

Source Authority	Requirement	Location
807 KAR 5:001, § 18(1)(g)	Applicant's written notification to state local debt officer regarding proposed issuance	Page 9, Para 37 Exhibit 18
807 KAR 5:001, § 18(2)(a) 807 KAR 5:001, § 12(1)(b)	Financial Exhibit	Pages 9-10, Para 39
807 KAR 5:001, § 18(2)(b)	Copies of trust deeds or mortgages	Page 10, Para 39(d) Not Applicable
807 KAR 5:001, § 12(2)(c)	If property acquired: maps and plans of property	Page 6, Paras 20-21 Page 10, Para 39(e) Exhibits 6 and 9
807 KAR 5:001, § 12(2)(c)	If property acquired: detailed estimates by USOA account number	Page 10, Para 39(f) Exhibit 19

EXHIBITS

TABLE OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
1	Order Establishing and Creating Water District to Be Known As Monroe County Water District (Monroe County Court Apr. 9, 1975)
2	Letter from Brian Crump, Environmental Control Supervisor, Kentucky Division of Water, to Richard O. Ross, General Manager, Monroe County Water District (Apr. 4, 2018).
3	Mutual Aid and Treated Water Source Transition Agreement
4	Agreed Order, <i>In Re Monroe County Water District</i> , Kentucky Energy and Environment Cabinet, Division of Enforcement, Case No. DOW 180066 (May 3, 2018)
5	Monroe County Water District Corrective Action Plan, <i>In Re Monroe County Water District</i> , Kentucky Energy and Environment Cabinet, Division of Enforcement, Case No. DOW 180066 (May 7, 2018)
6	Plans for Proposed Flocculation and Sedimentation Basin
7	Specifications for Proposed Flocculation and Sedimentation Basin
8	Description of Proposed Facilities' Location
9	Map of Proposed Facilities' Location
10	Hydraulic Calculations
11	Construction Application for Drinking Water Treatment
12	Change Order No. 8 to Contract I: Water Treatment Plant
13	Minutes of the April 9, 2018 Meeting of Monroe County Water District's Board of Commissioners
14	Letter from Donna McNeil, Executive Director, Kentucky Infrastructure Authority, to Mark Williams, Chair, Monroe County Water District (May 17, 2018)
15	Statement of Annual Cost of Operation of Proposed Facilities
16	Testimony of Robert D. Stigall
17	Conditional Commitment Letter of December 7, 2015
18	Notice to State Local Debt Officer

**Exhibit
No.**

Description

19

Detailed Estimate of Acquired Property, Arranged According to the Uniform Systems of Accounts for Class A/B Water Districts and Associations

EXHIBIT 1

67
1975

NO. _____

MONROE COUNTY COURT
MONROE COUNTY, KENTUCKY

IN THE MATTER OF MONROE COUNTY WATER DISTRICT

ORDER ESTABLISHING AND CREATING WATER DISTRICT
TO BE KNOWN AS
MONROE COUNTY WATER DISTRICT

WHEREAS, there has heretofore been filed a Petition by the above-named Petitioner and at least 25 other freeholders and residents of an area lying in this County, for the creation of a water district, and asking that same be named MONROE COUNTY WATER DISTRICT pursuant to Chapter 74 of the Kentucky Revised Statutes, and

WHEREAS, this Court, by order entered on February 24, 1975, set the case for hearing on the 9th day of April, 1975, at 10:00 A.M., C.D.T., and

WHEREAS, a Notice of the filing of such Petition and Notice of the Hearing as to same was duly published in the TOMPKINSVILLE NEWS, on March 6, 1975, and on March 27, 1975, advising interested parties of the fact that they were afforded a period of thirty days after the first publication of said Notice within which to file objections to the creation of said District, in compliance with all legal requirements, as set out in Affidavits of Publication heretofore filed in this proceeding, and

WHEREAS, a period of thirty days has expired after the first publication of such Notice, during which time all residents of the proposed district had an opportunity to file objections, and

WHEREAS, the Court has found and does hereby find that the establishment of such district is reasonably necessary for the public health, convenience, fire protection, safety and comfort of the residents within the area described in the

ORDERS } MONROE COUNTY COURT

Petition as being the area sought to be established as said water district,

NOW, THEREFORE, IT IS HEREBY ORDERED AS FOLLOWS:

1. That this Court has found and does hereby find that the establishment of a water district embracing the area described below is reasonably necessary for the public health, convenience, fire protection, safety and comfort of the residents of said area.

2. That this Court has determined and does hereby determine, that the original Petition filed in this Court for the creation of said Water District was signed by at least twenty-five (25) resident freeholders of the proposed District, as required by law, and that the creation of said District has been approved by the Public Service Commission of Kentucky as required by law, as evidenced by the order of said Public Service Commission filed with said Petition.

3. That this Court has determined that the territory of said District, as described hereinafter, does not embrace any portion of an incorporated municipality or other district in the County, and that all of the territory embraced by said District is located within the boundaries of this County.

4. That it is hereby ordered that there be and there is hereby established pursuant to KRS Chapter 74, a water district which shall have all of the powers available to water districts under KRS Chapter 74 and is hereby named "Monroe County Water District."

5. It is further ordered that the boundaries of said District shall be and are hereby determined to be as follows:

DESCRIPTION OF AREA OF PROPOSED WATER DISTRICT


All of Monroe County except Tompkinsville,
Gamaliel, and Fountain Run Water District No. 1.

ORDERS } MONROE COUNTY COURT

23 Exhibit 1
Page 3 of 3

6. It is further ordered that three commissioners of said Water District shall be immediately appointed by separate Order of this Court, in accordance with Chapter 74 of the Kentucky Revised Statutes.

Entered this 9th day of April, 1975.



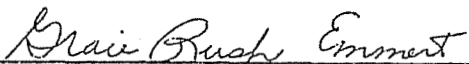
Judge of the Monroe County Court

CERTIFICATE OF COUNTY CLERK

I, GRACE RUSH EMMERT, hereby certify that I am the duly qualified and acting County Clerk of Monroe County, Kentucky, and that the foregoing is a true copy of an Order entered by the County Court of said County on April 9, 1975, as appears of record in County Court Order Book R, Page 21-23, in said office.

WITNESS my signature and seal of office this April 11, 1975.

(Seal of County)



County Clerk
By: Mary J. Cordingley, D.C.

EXHIBIT 2



MATTHEW G. BEVIN
GOVERNOR

CHARLES G. SNAVELY
SECRETARY

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

AARON B. KEATLEY
COMMISSIONER

DIVISION OF WATER
2751 CAMPBELLSVILLE RD
COLUMBIA, KY, 42728

April 4, 2018

Monroe Co Water District
Attn: Rick Ross
205 Capp Harlan Rd
Tompkinsville, Kentucky 42167

RE: [Monroe Co Water District -- 34034](#)
Permit No.: [KY0860150](#)
[Monroe County, Kentucky](#)

Dear [Mr. Ross](#):

The Division of Water and the Monroe County Water District met on March 29, 2018 to discuss the startup of the new Monroe County water treatment plant. As discussed in the meeting, it has been documented that the new plant lacks the required redundancy of essential treatment processes.

The Division of Water requires that the Monroe County Water District take steps to address the lack of redundancy **prior** to startup of the plant. The necessary steps were discussed during the March 29 meeting. A “near future” meeting will be scheduled by the Division of Water to evaluate the status of the corrective measures necessary to address the redundancy issue. Operation of the plant without addressing this issue is a violation of Division of Water regulations and may subject you to enforcement proceedings.

If you have any questions or comments concerning this inspection, please contact the [Columbia Regional Office](#) at: (270) 384-4734.

Sincerely,

E-Signed by Brian Crump
VERIFY authenticity with e-Sign

[Brian Crump](#)
Environmental Control Supervisor
[Columbia Regional Office](#)
[Division of Water](#)

bc
Enclosure:



EXHIBIT 3

Mutual Aid & Treated Water Source Transition Agreement

THIS AGREEMENT entered on the date as setout below, by and between the City of Tompkinsville (herein "Tompkinsville"), acting through its Mayor, as authorized by the City Council, and the Monroe County Water District (herein "MCWD") acting through its Chair, as authorized by the Board of Commissioners, each entity a Party to this Agreement, relating to commitments of mutual aid assistance for temporary emergency backup between their respective water treatment and distribution systems.

WHEREAS the City of Tompkinsville, provides water to customers within its corporate boundaries and sells treated water to the Monroe County Water District in accord with a Water Purchase Agreement, a copy of which is attached to and made part of this Agreement as Appendix A; and

WHEREAS the MCWD serves customers throughout Monroe County and is soon to bring on-line a new water treatment plant located on the Cumberland River and will have sufficient capacity to serve its customers and provide emergency backup treated water to Tompkinsville, and other neighboring systems; and

WHEREAS the Kentucky Division of Water encourages the development of a formal agreement relating to mutual aid and requires assurance that either Party is willing to serve as a reliable source of treated water to the other Party in times of emergency which may result from extreme weather events, natural disasters, system failures or other causes, so as to avoid, to the extent possible, customer service interruptions in either Party's system.

NOW THEREFORE THE CITY OF TOMPKINSVILLE AND THE MONROE COUNTY WATER DISTRICT DO HEREBY AGREE AND COMMIT, AS FOLLOWS:

1. Each Party shall assist the other Party, to the extent of its available resources, including but not limited to personnel, equipment, materials, and treated water, when customers of either Party are experiencing, or, may be in jeopardy of experiencing, a temporary loss of safe drinking water service due to any cause as a result of emergency circumstances.
2. Each Party shall select a qualified individual to serve as its Designated Representative, as identified below. When a Party needs emergency backup assistance, subject of this Agreement, its Designated Representative shall initiate communication to his/her counterpart as soon as reasonably possible, and request assistance. The Party receiving the request shall respond as quickly as reasonably possible and both Parties shall remain in close communication throughout the event.
3. If the assistance requested by either Party is for a temporary supply of treated water, such assistance shall be conditioned on the requested Party's current available capacity and be provided in accord with a Standard Operating Procedure (SOP) entitled "Treated Water Source Transition," attached to and made part of this Agreement, as Appendix B.

4. Both Parties understand and agree that it may be necessary to add minor or technical amendments to this SOP in the future, as deemed appropriate. Such amendments shall be in writing, subject to mutual agreement of the Designated Representative of each Party, and shall be communicated to the respective chief executive officer of both Parties and to the Columbia Regional Office of the Kentucky Division of Water, prior to implementation.

5. If the emergency assistance requested consists in a temporary supply of treated water, the Parties agree that the rate to be charged by either Party shall be the wholesale rate of \$3.00 per thousand gallons.

6. Both Parties to this Agreement are aware that MCWD will soon begin operation of a water treatment plant to supply its distribution system. The Parties acknowledge that it is reasonable to expect that MCWD may require temporary emergency backup of treated water from time to time over the course of the first year of plant operation to avoid loss of service to customers. Both Parties agree to work in close coordination, and when possible, to jointly plan for and schedule any corrective actions or treatment process modifications in their systems well in advance of the implementation date to allow the other to more easily accommodate the change.

7. Tompkinsville designates Water Commissioner / Jean Cain as its principal contact in all matters relating to the Mutual Aid Agreement and SOP, subject of this Agreement.

8. MCWD designates General Manager / Ricky Ross as its principal contact in all matters relating to the Mutual Aid Agreement and SOP, subject of this Agreement.

THIS AGREEMENT, together with the Standard Operating Procedure, attached as Appendix B, shall become effective and shall remain in force from the date of its passage, unless otherwise jointly amended, or revoked by either Party, in the same manner as its passage; revocation of this Agreement shall require prior written notification to the other Party and to the Columbia Regional Office of the Kentucky Division of Water.

CITY OF TOMPKINSVILLE

Approved by City Council, with authorization for signature on: 4/26/2018 .
Date

By: Scotty D. Turner Cristal McPherson
Mayor Scotty Turner City Clerk

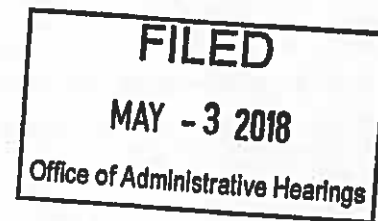
MONROE COUNTY WATER DISTRICT

Approved by the Board, with authorization for signature on: _____ .
Date

By: Mark Williams [Signature]
Chair Mark Williams Board Secretary

EXHIBIT 4

**COMMONWEALTH OF KENTUCKY
ENERGY AND ENVIRONMENT CABINET
DIVISION OF ENFORCEMENT
CASE NO. DOW-180066**



IN RE: Monroe County Water District
205 Capp Harlan Rd.
Tompkinsville, KY 42167
AI No. 34034
Activity ID No. ERF20180001

AGREED ORDER

WHEREAS, the parties to this Agreed Order, the Energy and Environment Cabinet (hereinafter “Cabinet”) and Monroe County Water District (hereinafter “District”), state:

STATEMENTS OF FACT

1. The Cabinet is charged with the statutory duty of enforcing KRS Chapter 224 and the regulations promulgated pursuant thereto.
2. The District recently completed construction of the Monroe County Water District Water Treatment Plant (hereinafter “WTP” or “facility”), which provides water service to the residents of Monroe County, Kentucky KY.
3. On or about February 6, 2018, authorized representatives of the Cabinet discovered a lack of redundancy at the WTP as required by 401 KAR 8:100.
4. On or about March 29, 2018, representatives of the Cabinet’s Division of Water (hereinafter “DOW”) met with representatives of the District to discuss deficiencies noted at the WTP with regards to the system redundancy requirements of 401 KAR 8:100.

NOW THEREFORE, in the interest of settling all civil claims and controversies involving the deficiencies described in paragraph 3 above, and to provide short-term and long-term solutions to the

redundancy requirements of 401 KAR 8:100, the parties hereby consent to the entry of this Agreed Order and agree as follows:

REMEDIAL MEASURES

4. Commencing with the execution of this Agreed Order and until its termination, the District shall comply with, and operate under the *Mutual Aid & Treated Water Source Transition Agreement* entered into by the District and the City of Tompkinsville, Kentucky. The *Mutual Aid & Treated Water Source Transition Agreement*, executed on April 27, 2018, is attached to this Agreed Order as Exhibit A.

5. Within thirty (30) days of the execution of this Agreed Order, the District shall submit to the Cabinet a Corrective Action Plan (hereinafter "CAP") for review and acceptance. The CAP shall outline the steps that the District will take to permanently correct the redundancy deficiencies noted at the WTP.

- a. Upon review of the CAP, the Cabinet shall, in whole or in part, (1) accept, (2) disapprove, or (3) provide comments to the District identifying any deficiencies. Within thirty (30) days of receipt of Cabinet's comments, the District shall revise and resubmit the CAP to the Cabinet for review and acceptance. Upon resubmittal by the District, the Cabinet may, in whole or in part, (1) accept, (2) disapprove or (3) provide comments to the District identifying any deficiencies. Upon such resubmittal, if any part of the CAP is disapproved, the Cabinet may deem the District to be out of compliance with this Agreed Order for failure to timely submit the CAP. If the District has received no response from the Cabinet within thirty (30) days of the Division's receipt of the CAP, such plan shall be deemed accepted and shall become effective upon the expiration of that thirty (30) day period. The District may request an extension of time within which to submit the CAP pursuant to paragraph 5(a) of this Agreed Order. Approval of any request for an extension of time shall be at the sole discretion of the Director of the Division of Enforcement.

b. If the District requests an amendment to the CAP, it shall notify the Cabinet in writing that an amendment request is forthcoming and shall outline the reasons why the amendment is necessary. Approval of any request for an amendment of a CAP shall be at the sole discretion of the Director of the Division of Enforcement.

i. If the Cabinet denies the request for an amendment to the CAP, the accepted CAP shall remain in full effect.

ii. If the Cabinet approves the request for an amendment to the CAP, the District shall then submit a draft amended CAP to the Cabinet for review and acceptance, within thirty (30) days of receipt of the Cabinet's approval. Upon review, the Cabinet may, in whole or in part, (1) accept or (2) disapprove, or (3) provide comments to the District identifying the deficiencies. Within thirty (30) days of receipt of Cabinet's comments, the District shall revise and resubmit the amended CAP to the Cabinet for review and acceptance. Upon resubmittal by the District, the Cabinet may, in whole or in part, (1) accept, (2) disapprove or (3) provide comments to the District identifying any deficiencies. Upon such resubmittal, if any part of the amended CAP is disapproved, the Cabinet may deem the District to be out of compliance with this Agreed Order for failure to timely submit an amended CAP.

6. By December 31, 2018, the District shall fully complete all the remedial actions noted in the accepted CAP, and shall ensure that the WTP meets all the requirements of 401 KAR 8:100.

7. All submittals required by this Agreed Order shall be sent to:

KYDEP, Division of Enforcement
Attention Director
300 Sower Blvd, 3rd Floor
Frankfort, KY 40601

MISCELLANEOUS PROVISIONS

8. This Agreed Order addresses only the violations specifically described above. Other than those matters resolved by entry of this Agreed Order, nothing contained herein shall be construed to waive or to limit any remedy or cause of action of the Cabinet based on statutes or regulations under its jurisdiction and the District reserves its defenses thereto. The Cabinet expressly reserves its right at any time to issue administrative orders and to take any other action it deems necessary that is not inconsistent with this Agreed Order, including the right to order all necessary remedial measures, assess penalties for violations, or recover all response costs incurred, and the District reserves its defenses thereto.

29. This Agreed Order shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit to the District. The District reserves its defenses thereto, except that the District shall not use this Agreed Order as a defense.

30. The District waives its right to any hearing on the matters admitted herein. However, failure by the District to comply strictly with any or all of the terms of this Agreed Order shall be grounds for the Cabinet to seek enforcement of this Agreed Order in Franklin Circuit Court and to pursue any other appropriate administrative or judicial action under KRS Chapter 224 and the regulations promulgated pursuant thereto.

31. The Agreed Order may not be amended except by a written order of the Cabinet's Secretary or his designee. The District may request an amendment by writing the Director of the Division of Enforcement at 300 Sower Blvd, Frankfort, KY 40601, and stating the reasons for the request. If granted, the amended Agreed Order shall not affect any provision of this Agreed Order unless expressly provided in the amended Agreed Order.

32. The Cabinet does not, by its consent to the entry of this Agreed Order, warrant or aver in any manner that the District's complete compliance with this Agreed Order will result in compliance with the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Notwithstanding the Cabinet's review and approval of any plans formulated pursuant to this Agreed Order, the District

shall remain solely responsible for compliance with the terms of KRS Chapter 224 and the regulations promulgated thereto, this Agreed Order, and any permit and compliance schedule requirements.

33. The District shall give notice of this Agreed Order to any purchaser, lessee or successor in interest prior to the transfer of ownership and/or operation of any part of the facility occurring prior to termination of this Agreed Order, shall notify the Cabinet that such notice has been given, and shall follow all statutory requirements for a transfer. Whether or not a transfer takes place, the District shall remain fully responsible for payment of all civil penalties and for performance of all remedial measures identified in this Agreed Order.

34. The Cabinet agrees to allow payment of civil penalties and completion of remedial measures to satisfy the District's obligations to the Cabinet generated by the violations described above.

35. The Cabinet and the District agree that the remedial measures agreed to herein are facility specific and designed to comply with the statutes and regulations cited herein. This Agreed Order applies specifically and exclusively to the unique facility referenced herein and is inapplicable to any other facility.

36. Compliance with this Agreed Order is not conditional on the receipt of any federal, state, or local funds.

37. This Agreed Order shall be of no force and effect unless and until it is entered by the Secretary or his designee as evidenced by his signature thereon. If this Agreed Order contains any date by which the District is to take any action or cease any activity, and the Secretary enters the Agreed Order after that date, then the District is obligated to take the action or cease the activity immediately after entry. This operation of this provision shall not impact deadlines or dates contained in the Agreed Order after the date of entry.

TERMINATION

38. This Agreed Order shall terminate upon the District's completion of all requirements described in this Agreed Order and the Cabinet's approval thereof. The District shall submit written notice


to the Cabinet when it believes all requirements have been performed. The Cabinet shall notify the District in writing whether it agrees with or objects to termination. The Cabinet reserves its right to enforce this Agreed Order in Franklin Circuit Court or in any other forum or venue available to it by law, and the District reserves its right to file a petition for hearing pursuant to KRS 224.10-420(2) contesting the Cabinet's determination.

AGREED TO BY:

Mark Williams
Mark Williams, Board Chair
Monroe County Water District


5-2-2018
Date

APPROVAL RECOMMENDED BY:



Jeffrey A. Cummins, Director
Division of Enforcement

5/3/18
Date



John G. Horne II, General Counsel
Energy and Environment Cabinet

5/3/18
Date

ORDER

Wherefore, the forgoing Agreed Order is entered as the final Order of the Energy and Environment Cabinet this 3rd day of May, 2018.

ENERGY AND ENVIRONMENT CABINET



R. Bruce Scott, Deputy Secretary
Energy and Environment Cabinet

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing **AGREED ORDER** was mailed, postage prepaid, to the following this 3rd day of May, 2018:

Monroe County Water District
Attn: Mark Williams
205 Capp Harlan Rd
Tompkinsville, KY 42167

and mailed, messenger to:

Jeffrey A. Cummins, Director
Division of Enforcement
300 Sower Blvd
Frankfort, Kentucky 40601

John G. Home, II, Executive Director
Office of General Council
300 Sower Blvd
Frankfort, KY 40601



DOCKET COORDINATOR

Mutual Aid & Treated Water Source Transition Agreement

THIS AGREEMENT entered on the date as setout below, by and between the City of Tompkinsville (herein "Tompkinsville"), acting through its Mayor, as authorized by the City Council, and the Monroe County Water District (herein "MCWD") acting through its Chair, as authorized by the Board of Commissioners, each entity a Party to this Agreement, relating to commitments of mutual aid assistance for temporary emergency backup between their respective water treatment and distribution systems.

WHEREAS the City of Tompkinsville, provides water to customers within its corporate boundaries and sells treated water to the Monroe County Water District in accord with a Water Purchase Agreement, a copy of which is attached to and made part of this Agreement as Appendix A; and

WHEREAS the MCWD serves customers throughout Monroe County and is soon to bring on-line a new water treatment plant located on the Cumberland River and will have sufficient capacity to serve its customers and provide emergency backup treated water to Tompkinsville, and other neighboring systems; and

WHEREAS the Kentucky Division of Water encourages the development of a formal agreement relating to mutual aid and requires assurance that either Party is willing to serve as a reliable source of treated water to the other Party in times of emergency which may result from extreme weather events, natural disasters, system failures or other causes, so as to avoid, to the extent possible, customer service interruptions in either Party's system.

NOW THEREFORE THE CITY OF TOMPKINSVILLE AND THE MONROE COUNTY WATER DISTRICT DO HEREBY AGREE AND COMMIT, AS FOLLOWS:

1. Each Party shall assist the other Party, to the extent of its available resources, including but not limited to personnel, equipment, materials, and treated water, when customers of either Party are experiencing, or, may be in jeopardy of experiencing, a temporary loss of safe drinking water service due to any cause as a result of emergency circumstances.
2. Each Party shall select a qualified individual to serve as its Designated Representative, as identified below. When a Party needs emergency backup assistance, subject of this Agreement, its Designated Representative shall initiate communication to his/her counterpart as soon as reasonably possible, and request assistance. The Party receiving the request shall respond as quickly as reasonably possible and both Parties shall remain in close communication throughout the event.
3. If the assistance requested by either Party is for a temporary supply of treated water, such assistance shall be conditioned on the requested Party's current available capacity and be provided in accord with a Standard Operating Procedure (SOP) entitled "Treated Water Source Transition," attached to and made part of this Agreement, as Appendix B.

4. Both Parties understand and agree that it may be necessary to add minor or technical amendments to this SOP in the future, as deemed appropriate. Such amendments shall be in writing, subject to mutual agreement of the Designated Representative of each Party, and shall be communicated to the respective chief executive officer of both Parties and to the Columbia Regional Office of the Kentucky Division of Water, prior to implementation.

5. If the emergency assistance requested consists in a temporary supply of treated water, the Parties agree that the rate to be charged by either Party shall be the wholesale rate of \$3.00 per thousand gallons.

6. Both Parties to this Agreement are aware that MCWD will soon begin operation of a water treatment plant to supply its distribution system. The Parties acknowledge that it is reasonable to expect that MCWD may require temporary emergency backup of treated water from time to time over the course of the first year of plant operation to avoid loss of service to customers. Both Parties agree to work in close coordination, and when possible, to jointly plan for and schedule any corrective actions or treatment process modifications in their systems well in advance of the implementation date to allow the other to more easily accommodate the change.

7. Tompkinsville designates Water Commissioner / Jean Cain as its principal contact in all matters relating to the Mutual Aid Agreement and SOP, subject of this Agreement.

8. MCWD designates General Manager / Ricky Ross as its principal contact in all matters relating to the Mutual Aid Agreement and SOP, subject of this Agreement.

THIS AGREEMENT, together with the Standard Operating Procedure, attached as Appendix B, shall become effective and shall remain in force from the date of its passage, unless otherwise jointly amended, or revoked by either Party, in the same manner as its passage; revocation of this Agreement shall require prior written notification to the other Party and to the Columbia Regional Office of the Kentucky Division of Water.

CITY OF TOMPKINSVILLE

Approved by City Council, with authorization for signature on: 4/26/2018.
Date
By: Scotty D. Turner Cristal McPherson
Mayor Scotty Turner City Clerk

MONROE COUNTY WATER DISTRICT

Approved by the Board, with authorization for signature on: _____
Date
By: Mark Williams [Signature]
Chair Mark Williams Board Secretary

**Resolution of the Monroe County Water District regarding
WTP Project Budget Amendment & Proceeding with the Construction of the
Conventional Flocculation and Sedimentation Basin**

Whereas, the Monroe County Water District's (District) new water treatment plant(wtp) handles raw water turbidity via an Actiflo unit at the head of the plant; and,

Whereas the Kentucky Division of Water (KDOW) has determined that redundancy requirements call for an additional means of treatment of raw water and the District has elected to construct a conventional flocculation/sedimentation basin so as to be able to alternate between these two components in its treatment process;

NOW THEREFORE, the District Board of Commissioners hereby resolves and commits as follows: The District:

1. will submit a WTP Project Budget Amendment to the Kentucky Infrastructure Authority (KIA), adding the conventional flocculation and sedimentation basin into the project components list, pursuant to regulatory redundancy requirements on or before May 4, 2018, subject to approval of the amended construction plans by the KDOW and by the Kentucky Public Service Commission (KPSC), Case No. 2015-00315; and,
2. will reallocate any and all available current Project funding resources to support the new basin, and if required, request the Executive Director of KIA to provide additional funding in accord with her authority as granted by the KIA Board of Directors; and,
3. having signed the Project Change Order # 8 and having authorized the Project Engineer to submit plans and specifications to KDOW and the KPSC for approval, does hereby authorize the District Board Chair to execute any all documents necessary and appropriate to start construction on the additional unit as soon as reasonably possible.

This Resolution presented for consideration and approval at a Special Meeting held on April 27, 2018 for which proper notice was provided, by a motion offer by

Dr. Kenneth Crabtree and seconded by Johnny Miller.

Member voted "to approve" or "not to approve" as follows:

Johnny Miller _____

Robert M. ... _____

... _____

Where upon the Chair declared the Resolution to have _____.

Mark ... _____ Chair

Witness: Robert M. ... Secretary

Resolution 2018-2
Date: 4-27-2018

*Resolution of the Monroe County Water District regarding a Mutual Aid Agreement
with the City of Tompkinsville and Proceeding with the Construction of the
Conventional Flocculation and Sedimentation Basin*

EXHIBIT 5

Monroe County Water District

205 Capp Harlan Road
Tompkinsville, Ky 42167
Phone: 270-487-8131
Fax: 270-487-0932

May 7, 2018

Commonwealth of Kentucky
Energy and Environment Cabinet
Division of Enforcement
Mr. Jeff Cummins, Director
300 Sower Blvd, 3rd Floor
Frankfort, Kentucky 40601

Re: Agreed Order Case No. DOW-180066

Director Cummins,

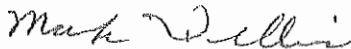
Please find enclosed, an Action Plan, submitted by the Monroe County Water District in regard to the above referenced case.

Be advised, there are certain activities cited in this brief plan, such as submittal of documents for the reviews and approvals by others, such as for construction plans, requests for additional funding and other similar matters – the implementation, control or execution of which is in the hands of others and not within the control of the Monroe County Water District.

We commit to maintain routine communication with your office as regards the progress or lack thereof as regards securing such approvals, and other results, as we are made aware of same.

We commit to work with your office to expedite the resolution of this matter.

Respectfully,



Mark Williams, Chair
Monroe County Water District

Attachments

Monroe County Water District – Agreed Order Action Plan 5 - 4 - 2018

The actions set out in this Plan, correspond to the directive on Page 2, under the heading “Remedial Measures”, 5.(sic) in the executed Agreed Order CASE NO. DOW-180066, (AO) between the Monroe County Water District(District) and the Kentucky Energy and Environment Cabinet(Cabinet).

All actions listed below are focused on achieving the degree of ‘redundancy’ required by Kentucky Administrative Regulation, subject of this AO, either indirectly, via an alternative means to achieve a similar result, namely by securing a documented assurance of the availability of an emergency backup source of treated water via a another utility regulated by the DOW, or, directly, as in, pertaining to the development of infrastructure components that will collectively provide the required volume of capacity in a second, stand alone, alternative facility, comparable in purpose to the existing Actiflo unit currently in place at the District’s wtp. Specifically, the District is in the process of securing necessary plan approvals and proceeding to construct a conventional flocculation / sedimentation basin on-site and adjacent to its new wtp to be available as a raw water treatment emergency backup alternative within the treatment processes. Finally, all actions listed below either have been undertaken or, are scheduled to be undertaken as quickly as reasonably possible. The District’s actions are focused toward assuring long-term availability of safe drinking water to all public water customers within the District’s service area and to support customers of neighboring systems that may experience emergency circumstances, to the extent of the District’s capacity.

1. Mutual Aid Agreement: Informal system-to-system backup services have traditionally occurred between MCWD and Tompkinsville. However, as a crucial result of recommendations offered by DOW staff during an on-site visit, March 29, 2018, the City of Tompkinsville and MCWD devised and entered a formal, inter-system treated water backup arrangement. The Mutual Aid Agreement, as attached to the AO, was executed by both parties, effective April 27, 2018, after review by legal counsel for each body, and approval of the City Commission and the Board of Commissioners, respectively. By intent, this Agreement does not cite a termination date. Further, in a summary listing of available resources referenced in the Agreement, “treated water” is included as a backup service to be offered by the respective systems, one to the other, in response to an emergency event. To best assure an orderly procedure when such an event may occur, the Agreement also contains a “standard operating procedure’(SOP) including a communications protocol and a diagram of the specific valve actuations required to effect the delivery of treated water between the systems. (See Item 1, “Resolution of MCWD Board Re Mutual Aid Agreement,” attached.)

2. Direct Actions: Actions relating to development of a conventional flocculation / sedimentation basin, which, once in place allows the District to achieve regulatory compliant redundancy via an infrastructure facility in the treatment processes:

A. Authorizations of MCWD Board of Commissioners to the Project Engineer, Robert Stigall & Associates, to proceed with development of a Project Change Order

and submittal of plans and specs to KDOW for the proposed basin. (See Item 2A, "draft Board Minutes of April 9 and April 27, 2018," attached. Note: draft minutes are subject to Board approval at the next regular meeting, May 14, 2018.)

- B. Project Change Order # 8; duly executed April 12, 2018 by Board Chair, Mark Williams, Project Engineer, Robert Stigall, P.E. and Mr. Tom McConathy, Project Manager for Judy Construction. (See Item 2B, "Project Change Order #8, attached.)
- C. Transmittal Letter and draft proposed Project Budget Amendment – directed to Ms. Amber Vaughn, DOW SRF Project Administrator. (See Item 2C, "Letter & Proposed SRF Project Budget Amendment," attached.)
- D. Letter to Kentucky Infrastructure Authority Executive Director, Donna McNeil, from MCWD requesting required additional project funding to construct conventional flocculation / sedimentation basin. (See Item 2D, "Additional Funding Request Letter," attached.)
- E. Letter from Mr. Gerald Wuetcher, Attorney, citing anticipated date when Project Plans Modification Application, subject to Kentucky Public Service Commission approval will be submitted. (See Item 2E, "Letter From Attorney, Regarding KPSC Application," attached.)
- F. Letter from Mr. Robert Stigall, P.E. Project Engineer, to Mr. Mark Williams, MCWD Chair citing expected time of construction start and completion of the conventional flocculation / sedimentation basin and the associated costs savings to the Contractor of an expedited schedule. (See Item 2F, "Letter to MCWD," attached.)

3. Communication: When and as any significant developments or results occur associated with Items 2C, 2D and 2F, of this Plan, the District will communicate same, in writing, to the Division of Enforcement, as per guidance contained in the AO.

* * * * *

Resolution 2018-2
Date: 4-27-2018

Resolution of the Monroe County Water District regarding
a Mutual Aid Agreement with the City of Tompkinsville Water System

Whereas, the Monroe County Water District (District) and the City of Tompkinsville Water System have traditionally taken all reasonable opportunity to provide backup support and assistance when one or the other system has experienced service outages due to system component failure, weather related incidents or other cause; and

Whereas the District sees the value at present and for future citizens of the County and the City to formalize such a backup assistance arrangement, through signing and implementing a Mutual Aid Agreement.

NOW THEREFORE, the Monroe County Water District Board of Commissioners hereby resolves and commits as follows:

1. to approve and enter into an agreement with the City of Tompkinsville, entitle "Mutual Aid Agreement", a copy of which is attached to and made part of this Resolution, which sets out the conditions under which the District and the City will extend and provide all available resources of one water system to the other's water system when either system's customers are experiencing, or are in jeopardy of experiencing, interruption of water service due to any cause.
2. to designate General Manager/R. Possto serve as the District's "Designated Representative" for the purposes set out in the Mutual Aid Agreement. And,
3. does hereby authorize the District Board Chair, Mark Williams, to execute the agreement subject of this Resolution for and on behalf of the District.

This Resolution presented for consideration and approval at a Special Meeting held on April 27, 2018 for which proper notice was provided, by a motion offer by Dr. Kenneth Crabtree and seconded by Mike Emberton.

Member voted "to approve" or "not to approve" as follows:

John Miller _____

R. Possto M.D. _____

[Signature] _____

Whereupon the Chair declared the Resolution to have passed.

Mark Williams _____ Witness: [Signature] _____
Chair Secretary

EXCERPTS
MINUTES OF
MONROE COUNTY WATER DISTRICT
MEETING

DATE: April 9, 2018
TIME: 7:00 P.M.
PLACE: Monroe County Water District Office

The meeting was called to order by Chairman Mark Williams. Present were Vice Chairman Mike Emberton, Treasurer John Thompson, Secretary, Dr. Kenneth Crabtree and Commissioner Johnny Miller. Also present were General Manager Ricky Ross, Office Manager Jana Dubree, County Judge Executive Tommy Willett, County Attorney Wes Stephens, Office Clerk Miranda Williams, Operator Kerry McPherson, Treatment Operator Robert Capps, Engineer Robert Stigall, Andrew Page, JB Walden and Roger Smith.

Mr. Stigall presented the Board with information from Division of Water. He stated he had submitted all plan and information requested to Terry Humphries with Division of Water. Mr. Stigall stated he had tried to contact Mr. Jory Becker twice and had not heard back from him yet. Mr. Stigall gave each Commissioner a copy of the Water Treatment plant project budget including invoices still to pay. Also, he discussed change order number 7 and 8 with the Board. The motion was made by Dr. Kenneth Crabtree to accept change order number 7 in the amount of \$72,778.97. The motion was seconded by Mike Emberton. The motion carried. The motion was made Dr. Kenneth Crabtree to accept and move forward with change order number 8 in the amount of \$691,551.00. The motion was seconded by Johnny Miller. The motion carried. (All voted aye.) (See attached.)

The motion was made by Johnny Miller and seconded by Dr. Kenneth Crabtree to adjourn. The motion passed. The next meeting will be Monday, May 14, 2018 at 7:00 p.m. (All voted aye.)

Jana Dubree, Office Manager

Dr. Kenneth Crabtree, Secretary

I hereby certify that the foregoing Minutes were duly approved by the Board of Commissioners of the Monroe County Water District at a meeting held on the date shown below:

Monroe County Water District

By: _____
Mark Williams, Chairman

Date Approved

MINUTES OF
MONROE COUNTY WATER DISTRICT
SPECIAL MEETING

DATE: April 27, 2018
TIME: 2:00 P.M.
PLACE: Monroe County Water District Office

The meeting was called to order by Chairman Mark Williams. Present were Vice Chairman Mike Emberton, Secretary, Dr. Kenneth Crabtree and Commissioner Johnny Miller. Also present were General Manager Ricky Ross, Office Manager Jana Dubree, County Judge Executive Tommy Willett, Treatment Operator Robert Capps, and Roger Recktenwald via telephone.

A resolution was read by Chairman Williams regarding the Water Treatment Plant project budget amendment and proceeding with the construction of the conventional flocculation and sedimentation basin. The motion was made by Dr. Kenneth Crabtree to approve the resolution as written. The motion was seconded by Johnny Miller. The motion carried. (All voted aye.)(See attached.)

A resolution was read by Chairman Williams regarding a Mutual Aid Agreement with the City of Tompkinsville Water System. The resolution requires a designated representative for Monroe County Water District. The motion was made Dr. Kenneth Crabtree to appoint the General Manager as the designated representative for Monroe County Water District. The motion was seconded by Johnny Miller. The motion carried. The motion was made by Dr. Kenneth Crabtree to approve the resolution as written. The motion was seconded by Mike Emberton. The motion carried. (All voted aye.)(See attached.)

The motion was made by Johnny Miller and seconded by Dr. Kenneth Crabtree to adjourn. The motion passed. The next meeting will be Monday, May 14, 2018 at 7:00 p.m. (All voted aye.)

Jana Dubree, Office Manager

Dr. Kenneth Crabtree, Secretary

I hereby certify that the foregoing Minutes were duly approved by the Board of Commissioners of the Monroe County Water District at a meeting held on the date shown below:

Monroe County Water District

By: _____
Mark Williams, Chairman

Date Approved

Stigall Engineering Associates, Inc. * 4117 Hillsboro Pike, Suite 206 * Nashville, Tennessee 37215

CHANGE ORDER

Date: April 12, 2018
 Project: MCWD Phase IX – Contract I: WTP
 Contractor: Judy Construction, Inc.
 Change Order No.: Eight (8)
 SEA Project No.: 0323-1

The Contract for Construction as amended by the Change Order:

- | | |
|---|----------------------|
| 1. Addition of 1.0 MGD flocculation and sedimentation basin to provide alternate treatment train to the facility (lump sum) | \$ 691,551.00 |
| Total | \$ 691,551.00 |
| 2. Add 240 consecutive contract days to contract to perform work listed in Item 1. The new contract date of completion shall be October 31, 2018. | |

Justification: Addition of 1.0 MGD flocculation and sedimentation basin to provide alternate treatment train to the facility.

Compensation to Contractor

Original Contract Amount	\$ 10,808,000.00
Net Change by Previous Change Orders	\$ -228,634.11
Amount of this Change Order	\$ 691,551.00
New Contract Amount	\$ 11,270,916.89

This Change Order is intended to, and the Contractor agrees that it does, fairly and adequately compensate the Contractor for extra direct costs (labor, materials, etc.) as well as all expenses and damages which may result from any delays, suspensions, stretch-outs, scheduling, inefficiencies, and accelerations in the Work associated with this Change Order, and the Contractor releases the Owner and the Engineer from any claims for such expenses and damages, including but not limited to changes in sequence of work, delays, disruption, rescheduling; extended overhead; acceleration; wage; material; or other escalations; and all other impact costs.

This Change Order is intended to, and the Contractor agrees that it does, provide the Contractor a reasonable and adequate period of time in which to complete the Work in accordance with the Contract for Construction, as amended by this Change Order, and the Contractor releases the Owner and the Engineer from any claims for additional time to perform the Work.

MONROE COUNTY WATER DISTRICT

Mark Williams 4-12-18
 Mark Williams, Chairman Date

JUDY CONSTRUCTION, INC.

Tom McConathy 4-12-18
 Tom McConathy, Project Manager Date

STIGALL ENGINEERING ASSOC., INC.

R. Stigall 4-12-18
 Robert D. Stigall, P.E., President Date

Monroe County Water District

205 Capp Harlan Road
Tompkinsville, Ky 42167
Phone: 270-487-8131
Fax: 270-487-0932

May 7, 2018

Ms. Amber Vaughn, DOW
Water Infrastructure Branch
SRF-SPAP Section
400 Sower Avenue
Frankfort, Kentucky 40601

Re: SRF Project: WX21171045
Monroe County Water Treatment Plant Project
KIA Loan Number: F15-002

Dear Ms. Vaughn,

Please find enclosed proposed Project Budget Amendments that reflect certain proposed budget changes to accommodate the proposed development of a conventional flocculation / sedimentation basin at the new water treatment plant site, on the Cumberland River, in Monroe County.

This proposed activity is being undertaken to address the need for redundancy in the treatment process and includes a requested increase in overall project funding in the amount of \$111,346.96, subject to approval by Mr. Donna McNeil, KIA Executive Director. Be advised that the District is just now making this request know to Director McNeil.

Please to not hesitate to contact Ms. Jana Dubree, with the District, or Ms. Katie Ford with the Barren River ADD, at your convenience.

Thank You,



Mark Williams, Chair
Monroe County Water District

SRF Project Cost Summary

Project Title: MCWCD District – New Regional Water Treatment Plant and Water System Improvements

WRIS#: WX21171045

Project Budget: **Estimated**

enter date

As Bid

enter date

Revised

5/7/18
enter date

Cost Classification	SRF KIA Loan	Funding Source 1	Funding Source 2	Funding Source 3	Funding Source 4	Funding Source 5	Local Funds	Unfunded Costs	Total
1 Administrative Expenses	30,929.80								
2 Legal Expenses	40,894.96								
3 Land, Appraisals, Easements	148,244.11								
4 Relocation Expenses & Payments	0								
5 Planning	0								
6 Engineering Fees – Design	0								
7 Engineering Fees – Construction	157,186.91								
8 Engineering Fees – Inspection	244,400.00								
9 Engineering Fees – Other	5,920.50								
10 Construction	15,238,129.52								
11 Equipment	0								
12 Miscellaneous	208,335.00								
13 Contingencies	0								
Total	\$16,074,040.80								

Funding Sources	Amount	Date Committed
1 KIA HB 235 6N-2014 & 8N2014	398,361.84	5-12-2014
2 KIA 2015 Fund F Loan	8,000,000.00	
3 KIA 2016 Fund F Loan	7,564,332.00	12-3-15
4		
5		
Total	15,962,693.84	

Local Funding Sources	Amount	Date Committed
1		
2		
3		
Total		

Total Funding \$ 15,962,693.84

Cost Categories	Funding Source	Total Cost
Treatment (DW)		9,042,194.28
Transmission and Distribution (DW)		2,922,935.20
Source (DW)		2,088,490.69
Storage (DW)		1,184,509.35
WWTP Secondary Portion (CW)		
WWTP Advanced Portion (CW)		
Inflow and Infiltration Correction (CW)		
Major Sewer Rehabilitation (CW)		
Collector Sewers (CW)		
Interceptor Sewers Including Pump Station (CW)		
Combined Sewer Overflow Correction (CW)		
Purchase of Systems (DW and CW)		
Restructuring (DW and CW)		
Land Acquisition (DW and CW)		
Total Costs		15,238,129.52

Monroe County Water District

205 Capp Harlan Road
Tompkinsville, Ky 42167
Phone: 270-487-8131
Fax: 270-487-0932

Item 21 Exhibit 5
Page 10 of 26

May 7, 2018

Donna McNeil, Executive Director
Kentucky Infrastructure Authority
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601

RE: Monroe County Water District - Request for Additional Funding for
Fund F Water Treatment Plant Project
KIA -- F15-002 (WX21171045)


Executive Director McNeil,

Please be advised that the Monroe County Water District received notice from DOW in late February regarding the need for redundancy at the new water treatment plant. After considering various options throughout March, the Board authorized proceeding with a construction change order to the wtp project at its meeting on April 9, 2018. After negotiations, the District signed Change Order #8 on April 12, 2018 with Judy Construction, in the amount of \$691,551. Design plans and specifications were shipped to the DOW for review and approval on April 18, 2018. Plans call for a 1mgd conventional flocculation / sedimentation basin to be constructed at the plant site and tied to the system to allow for alternate use of the Actiflo system or the conventional sedimentation system as a temporary backup raw water treatment process, when and as required. These plans will be submitted to the PSC on or before May 14th for approval prior to construction start.

Additionally, after meeting with Mr. Jory Becker (DOW - Frankfort) and Mr. Brian Crump (DOW - Columbia) who visited in our offices and subsequently with the City of Tompkinsville on March 29th, our two system successfully approved and signed, effective April 27, 2018, a Mutual Aid Agreement to assure general backup assistance between the systems -- as well as treated-water backup in times of emergency affecting either of our systems. Subsequently, yesterday, May 3, 2018, the District signed an Agreed Order (Case No. DOW-180066), copy of which is attached, to pursue, as expeditiously as possible the development of the conventional treatment system cited above. Based on the dates provided in the signed change order, the facility will be completed by October 31, 2018.

Consequently, the District has thoroughly reviewed and proposes to adjust line item amounts in its current wtp construction project budget based on project critical need, and proposes to establish a new line item as shown in the proposed amended budget, entitled "Flocculation-Sedimentation Basin" with the capital amount of Change Order #8, being \$691,551.00, as the entry. To balance the proposed revised Project Budget requires an addition \$111,346.96. The District Board requests that you, as Executive Director of KIA, increase our current project loan amount to reflect this additional amount and approve the proposed budget amendment to include this sum, thereby allowing the District to complete and close out our project upon construction completion.

Respectfully,



Mark Williams, Chair

Enclosures

**COMMONWEALTH OF KENTUCKY
ENERGY AND ENVIRONMENT CABINET
DIVISION OF ENFORCEMENT
CASE NO. DOW-180066**

IN RE: Monroe County Water District
205 Capp Harlan Rd.
Tompkinsville, KY 42167
AI No. 34034
Activity ID No. ERF20180001

AGREED ORDER

WHEREAS, the parties to this Agreed Order, the Energy and Environment Cabinet (hereinafter "Cabinet") and Monroe County Water District (hereinafter "District"), state:

STATEMENTS OF FACT

1. The Cabinet is charged with the statutory duty of enforcing KRS Chapter 224 and the regulations promulgated pursuant thereto.
2. The District recently completed construction of the Monroe County Water District Water Treatment Plant (hereinafter "WTP" or "facility"), which provides water service to the residents of Monroe County, Kentucky KY.
3. On or about February 6, 2018, authorized representatives of the Cabinet discovered a lack of redundancy at the WTP as required by 401 KAR 8:100.
4. On or about March 29, 2018, representatives of the Cabinet's Division of Water (hereinafter "DOW") met with representatives of the District to discuss deficiencies noted at the WTP with regards to the system redundancy requirements of 401 KAR 8:100.

NOW THEREFORE, in the interest of settling all civil claims and controversies involving the deficiencies described in paragraph 3 above, and to provide short-term and long-term solutions to the

redundancy requirements of 401 KAR 8:100, the parties hereby consent to the entry of this Agreed Order and agree as follows:

REMEDIAL MEASURES

4. Commencing with the execution of this Agreed Order and until its termination, the District shall comply with, and operate under the *Mutual Aid & Treated Water Source Transition Agreement* entered into by the District and the City of Tompkinsville, Kentucky. The *Mutual Aid & Treated Water Source Transition Agreement*, executed on April 27, 2018, is attached to this Agreed Order as Exhibit A.

5. Within thirty (30) days of the execution of this Agreed Order, the District shall submit to the Cabinet a Corrective Action Plan (hereinafter "CAP") for review and acceptance. The CAP shall outline the steps that the District will take to permanently correct the redundancy deficiencies noted at the WTP.

- a. Upon review of the CAP, the Cabinet shall, in whole or in part, (1) accept, (2) disapprove, or (3) provide comments to the District identifying any deficiencies. Within thirty (30) days of receipt of Cabinet's comments, the District shall revise and resubmit the CAP to the Cabinet for review and acceptance. Upon resubmittal by the District, the Cabinet may, in whole or in part, (1) accept, (2) disapprove or (3) provide comments to the District identifying any deficiencies. Upon such resubmittal, if any part of the CAP is disapproved, the Cabinet may deem the District to be out of compliance with this Agreed Order for failure to timely submit the CAP. If the District has received no response from the Cabinet within thirty (30) days of the Division's receipt of the CAP, such plan shall be deemed accepted and shall become effective upon the expiration of that thirty (30) day period. The District may request an extension of time within which to submit the CAP pursuant to paragraph 5(a) of this Agreed Order. Approval of any request for an extension of time shall be at the sole discretion of the Director of the Division of Enforcement.

b. If the District requests an amendment to the CAP, it shall notify the Cabinet in writing that an amendment request is forthcoming and shall outline the reasons why the amendment is necessary. Approval of any request for an amendment of a CAP shall be at the sole discretion of the Director of the Division of Enforcement.

i. If the Cabinet denies the request for an amendment to the CAP, the accepted CAP shall remain in full effect.

ii. If the Cabinet approves the request for an amendment to the CAP, the District shall then submit a draft amended CAP to the Cabinet for review and acceptance, within thirty (30) days of receipt of the Cabinet's approval. Upon review, the Cabinet may, in whole or in part, (1) accept or (2) disapprove, or (3) provide comments to the District identifying the deficiencies. Within thirty (30) days of receipt of Cabinet's comments, the District shall revise and resubmit the amended CAP to the Cabinet for review and acceptance. Upon resubmittal by the District, the Cabinet may, in whole or in part, (1) accept, (2) disapprove or (3) provide comments to the District identifying any deficiencies. Upon such resubmittal, if any part of the amended CAP is disapproved, the Cabinet may deem the District to be out of compliance with this Agreed Order for failure to timely submit an amended CAP.

6. By December 31, 2018, the District shall fully complete all the remedial actions noted in the accepted CAP, and shall ensure that the WTP meets all the requirements of 401 KAR 8:100.

7. All submittals required by this Agreed Order shall be sent to:

KYDEP, Division of Enforcement
Attention Director
300 Sower Blvd, 3rd Floor
Frankfort, KY 40601

MISCELLANEOUS PROVISIONS

8. This Agreed Order addresses only the violations specifically described above. Other than those matters resolved by entry of this Agreed Order, nothing contained herein shall be construed to waive or to limit any remedy or cause of action of the Cabinet based on statutes or regulations under its jurisdiction and the District reserves its defenses thereto. The Cabinet expressly reserves its right at any time to issue administrative orders and to take any other action it deems necessary that is not inconsistent with this Agreed Order, including the right to order all necessary remedial measures, assess penalties for violations, or recover all response costs incurred, and the District reserves its defenses thereto.

29. This Agreed Order shall not prevent the Cabinet from issuing, reissuing, renewing, modifying, revoking, suspending, denying, terminating, or reopening any permit to the District. The District reserves its defenses thereto, except that the District shall not use this Agreed Order as a defense.

30. The District waives its right to any hearing on the matters admitted herein. However, failure by the District to comply strictly with any or all of the terms of this Agreed Order shall be grounds for the Cabinet to seek enforcement of this Agreed Order in Franklin Circuit Court and to pursue any other appropriate administrative or judicial action under KRS Chapter 224 and the regulations promulgated pursuant thereto.

31. The Agreed Order may not be amended except by a written order of the Cabinet's Secretary or his designee. The District may request an amendment by writing the Director of the Division of Enforcement at 300 Sower Blvd, Frankfort, KY 40601, and stating the reasons for the request. If granted, the amended Agreed Order shall not affect any provision of this Agreed Order unless expressly provided in the amended Agreed Order.

32. The Cabinet does not, by its consent to the entry of this Agreed Order, warrant or aver in any manner that the District's complete compliance with this Agreed Order will result in compliance with the provisions of KRS Chapter 224 and the regulations promulgated pursuant thereto. Notwithstanding the Cabinet's review and approval of any plans formulated pursuant to this Agreed Order, the District

shall remain solely responsible for compliance with the terms of KRS Chapter 224 and the regulations promulgated thereto, this Agreed Order, and any permit and compliance schedule requirements.

33. The District shall give notice of this Agreed Order to any purchaser, lessee or successor in interest prior to the transfer of ownership and/or operation of any part of the facility occurring prior to termination of this Agreed Order, shall notify the Cabinet that such notice has been given, and shall follow all statutory requirements for a transfer. Whether or not a transfer takes place, the District shall remain fully responsible for payment of all civil penalties and for performance of all remedial measures identified in this Agreed Order.

34. The Cabinet agrees to allow payment of civil penalties and completion of remedial measures to satisfy the District's obligations to the Cabinet generated by the violations described above.

35. The Cabinet and the District agree that the remedial measures agreed to herein are facility specific and designed to comply with the statutes and regulations cited herein. This Agreed Order applies specifically and exclusively to the unique facility referenced herein and is inapplicable to any other facility.

36. Compliance with this Agreed Order is not conditional on the receipt of any federal, state, or local funds.

37. This Agreed Order shall be of no force and effect unless and until it is entered by the Secretary or his designee as evidenced by his signature thereon. If this Agreed Order contains any date by which the District is to take any action or cease any activity, and the Secretary enters the Agreed Order after that date, then the District is obligated to take the action or cease the activity immediately after entry. This operation of this provision shall not impact deadlines or dates contained in the Agreed Order after the date of entry.

TERMINATION

38. This Agreed Order shall terminate upon the District's completion of all requirements described in this Agreed Order and the Cabinet's approval thereof. The District shall submit written notice

DOW-180066

to the Cabinet when it believes all requirements have been performed. The Cabinet shall notify the District in writing whether it agrees with or objects to termination. The Cabinet reserves its right to enforce this Agreed Order in Franklin Circuit Court or in any other forum or venue available to it by law, and the District reserves its right to file a petition for hearing pursuant to KRS 224.10-420(2) contesting the Cabinet's determination.

DOW-180066

AGREED TO BY:

Mark Williams, Board Chair
Monroe County Water District

Date

DOW-180066

APPROVAL RECOMMENDED BY:

Jeffrey A. Cummins, Director
Division of Enforcement

Date

John G. Horne II, General Counsel
Energy and Environment Cabinet

Date

DOW-180066

ORDER

Wherefore, the forgoing Agreed Order is entered as the final Order of the Energy and Environment Cabinet this ____ day of _____, 2018.

ENERGY AND ENVIRONMENT CABINET

R. Bruce Scott, Deputy Secretary
Energy and Environment Cabinet

DOW-180066

CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of the foregoing **AGREED ORDER** was mailed, postage prepaid, to the following this _____ day of _____, 2018:

Monroe County Water District
Attn: Mark Williams
205 Capp Harlan Rd
Tompkinsville, KY 42167

and mailed, messenger to:

Jeffrey A. Cummins, Director
Division of Enforcement
300 Sower Blvd
Frankfort, Kentucky 40601

John G. Horne, II, Executive Director
Office of General Council
300 Sower Blvd
Frankfort, KY 40601

DOCKET COORDINATOR

Mutual Aid & Treated Water Source Transition Agreement

THIS AGREEMENT entered on the date as setout below, by and between the City of Tompkinsville (herein "Tompkinsville"), acting through its Mayor, as authorized by the City Council, and the Monroe County Water District (herein "MCWD") acting through its Chair, as authorized by the Board of Commissioners, each entity a Party to this Agreement, relating to commitments of mutual aid assistance for temporary emergency backup between their respective water treatment and distribution systems.

WHEREAS the City of Tompkinsville, provides water to customers within its corporate boundaries and sells treated water to the Monroe County Water District in accord with a Water Purchase Agreement, a copy of which is attached to and made part of this Agreement as Appendix A; and

WHEREAS the MCWD serves customers throughout Monroe County and is soon to bring on-line a new water treatment plant located on the Cumberland River and will have sufficient capacity to serve its customers and provide emergency backup treated water to Tompkinsville, and other neighboring systems; and

WHEREAS the Kentucky Division of Water encourages the development of a formal agreement relating to mutual aid and requires assurance that either Party is willing to serve as a reliable source of treated water to the other Party in times of emergency which may result from extreme weather events, natural disasters, system failures or other causes, so as to avoid, to the extent possible, customer service interruptions in either Party's system.

NOW THEREFORE THE CITY OF TOMPKINSVILLE AND THE MONROE COUNTY WATER DISTRICT DO HEREBY AGREE AND COMMIT, AS FOLLOWS:

1. Each Party shall assist the other Party, to the extent of its available resources, including but not limited to personnel, equipment, materials, and treated water, when customers of either Party are experiencing, or, may be in jeopardy of experiencing, a temporary loss of safe drinking water service due to any cause as a result of emergency circumstances.
2. Each Party shall select a qualified individual to serve as its Designated Representative, as identified below. When a Party needs emergency backup assistance, subject of this Agreement, its Designated Representative shall initiate communication to his/her counterpart as soon as reasonably possible, and request assistance. The Party receiving the request shall respond as quickly as reasonably possible and both Parties shall remain in close communication throughout the event.
3. If the assistance requested by either Party is for a temporary supply of treated water, such assistance shall be conditioned on the requested Party's current available capacity and be provided in accord with a Standard Operating Procedure (SOP) entitled "Treated Water Source Transition," attached to and made part of this Agreement, as Appendix B.

4. Both Parties understand and agree that it may be necessary to add minor or technical amendments to this SOP in the future, as deemed appropriate. Such amendments shall be in writing, subject to mutual agreement of the Designated Representative of each Party, and shall be communicated to the respective chief executive officer of both Parties and to the Columbia Regional Office of the Kentucky Division of Water, prior to implementation.

5. If the emergency assistance requested consists in a temporary supply of treated water, the Parties agree that the rate to be charged by either Party shall be the wholesale rate of \$3.00 per thousand gallons.

6. Both Parties to this Agreement are aware that MCWD will soon begin operation of a water treatment plant to supply its distribution system. The Parties acknowledge that it is reasonable to expect that MCWD may require temporary emergency backup of treated water from time to time over the course of the first year of plant operation to avoid loss of service to customers. Both Parties agree to work in close coordination, and when possible, to jointly plan for and schedule any corrective actions or treatment process modifications in their systems well in advance of the implementation date to allow the other to more easily accommodate the change.

7. Tompkinsville designates Water Commissioner / Jean Cain as its principal contact in all matters relating to the Mutual Aid Agreement and SOP, subject of this Agreement.

8. MCWD designates General Manager / Ricky Ross as its principal contact in all matters relating to the Mutual Aid Agreement and SOP, subject of this Agreement.

THIS AGREEMENT, together with the Standard Operating Procedure, attached as Appendix B, shall become effective and shall remain in force from the date of its passage, unless otherwise jointly amended, or revoked by either Party, in the same manner as its passage; revocation of this Agreement shall require prior written notification to the other Party and to the Columbia Regional Office of the Kentucky Division of Water.

CITY OF TOMPKINSVILLE

Approved by City Council, with authorization for signature on: 4/26/2018 Date

By: Scotty D. Turner Mayor Scotty Turner Cristal McPherson City Clerk

MONROE COUNTY WATER DISTRICT

Approved by the Board, with authorization for signature on: _____ Date

By: Mark Williams Chair Mark Williams [Signature] Board Secretary

Resolution 2018-1

Date: 4-27-2018

**Resolution of the Monroe County Water District regarding
WTP Project Budget Amendment & Proceeding with the Construction of the
Conventional Flocculation and Sedimentation Basin**

Whereas, the Monroe County Water District's (District) new water treatment plant(wtp) handles raw water turbidity via an Actiflo unit at the head of the plant; and,

Whereas the Kentucky Division of Water (KDOW) has determined that redundancy requirements call for an additional means of treatment of raw water and the District has elected to construct a conventional flocculation/sedimentation basin so as to be able to alternate between these two components in its treatment process;

NOW THEREFORE, the District Board of Commissioners hereby resolves and commits as follows: The District:

1. will submit a WTP Project Budget Amendment to the Kentucky Infrastructure Authority (KIA), adding the conventional flocculation and sedimentation basin into the project components list, pursuant to regulatory redundancy requirements on or before May 4, 2018, subject to approval of the amended construction plans by the KDOW and by the Kentucky Public Service Commission (KPSC), Case No. 2015-00315; and,
2. will reallocate any and all available current Project funding resources to support the new basin, and if required, request the Executive Director of KIA to provide additional funding in accord with her authority as granted by the KIA Board of Directors; and,
3. having signed the Project Change Order # 8 and having authorized the Project Engineer to submit plans and specifications to KDOW and the KPSC for approval, does hereby authorize the District Board Chair to execute any all documents necessary and appropriate to start construction on the additional unit as soon as reasonably possible.

This Resolution presented for consideration and approval at a Special Meeting held on April 27, 2018 for which proper notice was provided, by a motion offer by Dr. Kenneth Crabtree and seconded by Johnny Miller.

Member voted "to approve" or "not to approve" as follows:

Johnny Miller _____

Robert M. C. [Signature] _____

[Signature] _____

Where upon the Chair declared the Resolution to have _____.

Mark Williams _____ Witness: [Signature] _____
Chair Secretary

Resolution 2018-2
Date: 4-27-2018

*Resolution of the Monroe County Water District regarding a Mutual Aid Agreement
with the City of Tompkinsville and Proceeding with the Construction of the
Conventional Flocculation and Sedimentation Basin*



GERALD WUETCHER
DIRECT DIAL: (859) 231-3017
DIRECT FAX: (859) 258-3517
gerald.wuetcher@skofirm.com

2000 PNC PLAZA
500 WEST JEFFERSON STREET
LOUISVILLE, KY 40202-2828
MAIN: (502) 333-6000
FAX: (502) 333-6099

May 4, 2018

Via Electronic Mail

Mr. Mark Williams
Monroe County Water District
205 Capp Harlan Road
Tompkinsville, Kentucky 42167

Re: *Electronic Application of Monroe County Water District to Modify the Order of March 18, 2016 in Case No. 2015-00315 to Reflect Certain Revisions in the Design of the Approved Water Treatment Facility Case No. 2018-00148*

Dear Mr. Williams:

Pursuant to your request, please be advised that Stoll Keenon Ogden PLLC ("SKO") anticipates that preparation of the application in the above-reference proceeding will be completed on or about May 14, 2018. In this application, SKO on behalf of Monroe County Water District will request that the Kentucky Public Service Commission complete its review and issue a decision on the application no later than June 1, 2018.

Please contact me if you have any additional questions.

Very truly yours,

Stoll Keenon Ogden PLLC

A handwritten signature in black ink that reads "Gerald Wuetcher".

Gerald Wuetcher

GEW
Cc: Roger Recktenwald

STIGALL ENGINEERING ASSOCIATES, INC.

1117 Hillboto Pike, Suite 206 • Nashville, Tennessee 37215 • Telephone: 615-460-7515 • Facsimile: 615-460-7517

May 2, 2018

Mr. Mark Williams, Chairman
Monroe County Water District
205 Capp Harlan Road
Tompkinsville, Kentucky 42167

Re: Monroe County Water District
Phase IX Water System Improvements
Agreed Order with the Energy & Environmental Cabinet
SEA Project No. 0323

Dear Mr. Williams:

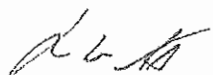
The purpose of this correspondence is to provide information regarding the construction of a flocculation/sedimentation basin at the water treatment facility to address system redundancy per the Agreed Order between the District and Cabinet.

We shipped on April 18, 2018 via United Parcel Service, plans, specifications and calculations to the Division of Water for the construction of the referenced facilities and the Division of Water received this package April 20, 2018. To the best of our knowledge and abilities, this submission satisfies the Division of Water's design criteria.

Based on the urgency expressed by the KDOW for project implementation and conversations with staff of Judy Construction, if we receive approval of this submission in a typical review time frame, with approval expected to be around mid-late May, the Contractor can void additional de-mobilization and re-mobilization time and expense costs and work could begin on the basin in June 2018. Based on these dates, the basin should be ready for operation by the end of October 2018.

We appreciate working with you and the District and please contact me if additional information would be helpful.

Sincerely,
STIGALL ENGINEERING ASSOCIATES, INC.


Robert D. Stigall, P.E.
President

cc: Mr. Roger Recktenwald, Director of Research & Planning
Kentucky Association of Counties

EXHIBIT 6

PROVIDED AS SEPARATE DOCUMENT

EXHIBIT 7

TECHNICAL SPECIFICATIONS

**MONROE COUNTY WATER DISTRICT
PHASE IX WATER SYSTEM IMPROVEMENTS
CONTRACT I: WATER TREATMENT PLANT
CHANGE ORDER 8: SPECIFICATIONS**

Prepared By:

**STIGALL ENGINEERING ASSOCIATES, INC.
4117 Hillsboro Pike, Suite 206
Nashville, Tennessee 37215
615.460.7515**

Prepared April 2018

SEA Project No. 0323



4-18-18

SECTION 1
TUBE SETTLER SYSTEM

1.01 SCOPE OF WORK:

- A. Installation of tube settler modules, protective surface grating, baffles, effluent trough(s), weirs, and support system as shown on drawings and as specified herein.

1.02 REFERENCE STANDARDS

- A. ASTM – American Society for Testing and Materials
- B. NSF International – Standard 61
- C. AISC Code of Standard Practice
- D. AWS D 1.1 Structural Welding Code

1.03 SYSTEM DESCRIPTION

A. Definitions:

1. Tube Settler Module – Tube settlers are comprised of multiple tubular channels sloped at an angle of about 60°, which allow enhanced settling characteristics and accumulation of solids within a settling basin. Modules will be 2 ft. height, 1 ft. or 2 ft. widths, up to 12 ft. lengths as required by the tank geometry and support structure. Tube settler modules shall have a minimum tube length of 27.5 inches.
2. Protective Surface Grating – Interlocking panels, a minimum 1-1/4 in. height, to absorb hydraulic impact (during washdowns), provide operator access, provide a protective layer from foot traffic, and added UV protection to tube settler area.
3. Support System – Structural system designed to support tube settlers, baffles, and troughs as required. Support system to be provided as per engineer's plans or tube settler system manufacturer design.
4. Baffle System – System to direct water through tube settler area. Provided as per engineer's plans or tube settler system manufacturer design. To be designed in conjunction with support system.
5. Trough/Weir System – Effluent launders to remove clarified water from sedimentation basin. Provided as per engineer's plans or tube settler system manufacturer design.

B. Description of System:

1. System includes tube settler modules, protective surface grating, baffles, weirs, and support structures.

C. Interface with Adjacent System(s):

1. Install tube settler system within clarifier as recommended by tube settler manufacturer, or as directed on project drawings.

D. Tolerances:

1. Top of adjacent tube modules shall be installed true level, plus or minus 1/2 inch in full length.
2. A maximum 1/4-inch space is allowed between installed modules.

E. Performance Requirements:

1. Each tube shall have a cross sectional perimeter of approximately 10.0 inches to give a low Reynolds number and of an approximate triangular shape that allows rapid accumulation, concentration, and drainage of solids.
2. Cross corrugation of tubes with mixing points within individual modules is not allowed. This causes mixing currents, which adversely affect the settlement of solids as well as re-suspend the settled solids within the system.
3. Reversal of tube direction between adjacent modules is not allowed. Such reversal causes mixing currents at the surface of the module as described above.
4. Protective surface grating shall not impact performance of tube settlers or cause physical damage to tube settler material.

1.04 QUALITY ASSURANCE

A. Qualifications of manufacturer:

1. Tube settler module manufacturer shall have minimum 5 years continuous experience in manufacture and supply of tube settlers. Pre-qualification is required for bidding, except for acceptable manufacturers named herein.

B. Installation Requirements:

1. Install tube settler system in accordance with manufacturer's written instructions.
2. Tube settler system manufacturer provides services of qualified representative onsite to provide instructions on installation, cutting, etc.

C. Source Quality Control:

1. Current certification of tube modules and surface grating as tested and certified with ANSI/NSF-Standard 61 for use in potable water.
2. Individual tube settler modules will bear the seal as being NSF Certified.
3. All equipment to use potable grade material suitable for use in drinking water plants.

1.05 SUBMITTALS

A. Shop drawings required for following:

1. Tube Settler Modules
2. Protective Surface Grating
3. Support Structure
4. Baffle(s)
5. Trough(s)/Weirs

B. Product Data required as follows:

1. Tube Settler Modules
 - a. Materials
 - b. Installation instructions
2. Protective Surface Grating
 - a. Materials
 - b. Installation instructions
3. Support Structure
 - a. Materials
 - b. Installation instructions
4. Baffle(s)
 - a. Materials
 - b. Installation instructions
5. Trough(s)/Weirs
 - a. Materials
 - b. Installation instructions

C. Documentation and Samples

1. At least 10 days prior to bid, submit to Engineer 1 ft. width x full height by minimum 2 ft. long sample of tube module, 2 ft. x 2 ft. sample of surface grating and documentation of up to date structural testing for any manufacturers to be considered for pre-qualification to bid. (Include with submittal sample 3 copies of complete product specifications, and written instructions for field cutting and installing tube modules). All samples to be retained by Owner. Manufacturers named as acceptable herein are not required to submit samples.

D. Operating and Maintenance (O&M) Instructions:

1. O & M Instructions shall include:
 - a. Storage and installation procedures
 - b. Cleaning procedures

E. Certificates:

1. Provide current certificate that tube settler modules and surface grating are tested and Certified by NSF to ANSI/NSF Standard 61 Drinking Water System Components.

1.06 DELIVERY, STORAGE & HANDLING

A. Delivery

1. Tube modules shall be shipped and delivered to job site on pallets.

B. Storage

1. All material and equipment shall be shipped, stored, handled, and installed in such a manner as to not degrade quality or serviceability.
2. The tube settling modules shall not be stacked more than four high (8 ft.) (one over the other).
3. All modules shall be stacked such that the PVC sheet planes are in a vertical position (similar to the manner of their placement inside the tank).
4. A light colored cover shall cover all modules required to be stored in the open beyond two months. Ideally these covers should be double sided such as a white on black. The white side, facing out, is used to reflect light away. Clear covers are prohibited. Black is not recommended. Black will absorb heat and if the cover comes in direct contact with the media, this heat can be quickly transferred to the media.
5. Covers cannot be wrapped tightly around the media. There should be at least a 6" air gap between the cover and top of media. The ends of the cover should be securely anchored on all sides with at least a 12" air gap at the bottom. These covers should provide shading while allowing air to pass through to prevent heat from building up.
6. Modules should be checked at least once a week. It is very possible that the covers can become loose over time due to wind or rain. A check of the stored area should be done to make any minor repairs to the cover or to restack any modules that could have fallen.

C. Handling

1. Tube modules shall remain on shipping pallets until ready to install.
2. Any abusive handling of the modules shall not be permitted. Workmen shall be careful in placing the tube modules and avoid any damage to the corners and tube edges.
3. Personnel shall not stand or walk directly on top of the modules, except as outlined in Section 2.02A.8.
4. Media modules may get brittle at low temperatures or soft at high temperatures. Therefore, care should be used in the handling of modules.

1.07 SEQUENCING/SCHEDULING

A. Sequencing:

1. Install module supports.
2. Install baffle(s), weir(s), and trough(s) as necessary.
3. Install tube modules as recommended by manufacturer.
4. Install protective surface grating

B. Scheduling:

1. Schedule shall be consistent with project completion date and account for tube settler system manufacturer's production and shipping terms.

1.08 ACCEPTABLE MANUFACTURERS, TUBE SETTLER SYSTEM

A. Brentwood Industries, Inc. of Reading, Pennsylvania.

B. Approved equal.

1.09 MATERIALS

A. Tube Modules

1. Tube settler modules shall have a minimum vertical height of 24-inches.
2. Tube settler modules shall have a minimum tube length of 27.5-inches.
3. The material of construction shall be flame resistant, self-extinguishing, rigid PVC which is Blue in color.
4. White and/or Black colored PVC will not be allowed without exception.
5. Material shall be inert and resistant to naturally occurring constituents in water and to the normal dosage of water treatment chemicals required in the treatment process.
6. Tube settler modules must be Tested and Certified by NSF to ANSI/NSF Standard 61 Drinking Water System Components. Evidence of current certification must be included with submittal package and indelibly marked on the sheets of the modules.
7. The PVC sheet shall be prime, rigid PVC conforming to commercial standard ASTM D1784:12344B with the following properties.

Property	Test Method	Unit	Typical Value
Specific Gravity	D792	gm/cu.cm.	1.45 max.
Tensile Strength	D638/D882	psi	6,000 min.
Flexural Modulus	D790	psi	425,000 min.
Flexural Strength	D790	psi	11,000 min.
Elastic Modulus	D638/D882	psi	360,000 min.
Impact Resistance	D5420	in.lbs./mil	0.8 min.
Heat Deflection	D648	□F (264 psi)	158 min.
Flammability	D635		self-extinguishing less than 5 sec.

8. The modules shall be self-supporting and constructed to support foot traffic, such foot traffic may occur only after the tube settler surface has been covered with 4' X 4' x 3/8" thick plywood sheets or the Brentwood AccuGrid surface grating. The sheeting/grating is required to prevent damage to the tube settler edges and to distribute the weight of the worker. A potential safety hazard may occur if the sheeting/grating is not utilized when walking atop the tube settlers.
9. Structural integrity of an individual 1 ft. wide module shall be maintained, with no influence of a protective surface grating, under a loading of 15 pounds per sq. ft. (psf) which includes the module dead weight plus a uniformly distributed load of 10 psf while bearing a movable live load of 250 lbs concentrated over a one sq. ft. area at the midpoint of the module span.
10. The maximum unsupported module span shall be 8'.

B. Protective Surface Grating:

1. The protective surface grating when installed as per manufacturer's recommendations shall provide a protective surface (such as operator access or for minimizing the hydraulic impact on the media during washdowns, etc.) on top of the tube settler media. Such grating shall comprise of multiple square mesh of 2 in. x 2 in. (app. 50 mm x 50 mm) openings, molded together to provide a strong and light weight panel. Each panel of the grating will measure about 24 inches (610 mm) in width, 24 inches (610 mm) in length and about 1 ¼ inches (app. 31 mm) in height. In addition, each panel shall have a net weight of about 3 lbs. (app. 1.4 kgs.). The grating panels will contact with the media to provide an economical as well as an effective grating when the grating panels are placed on top of the tube settler media. Any grating heavier than the specified weight, or which can cause damage to the tube settlers shall not be acceptable.
2. The material of construction shall be current NSF certified HDPE blue in color that will be specifically UV stabilized for inhibiting UV degradation of the grating under extended exposure to the sun. The material shall be inert and resistant to naturally occurring constituents in water and wastewater.

3. Grating shall be installed in panels side-by-side and placed on top of the tube settler media as shown on the plans and drawings for the project. Each panel shall be snapped together with the adjacent panel with locks provided at the edges of each panel. The grating panels shall be placed on top of the media such that the grating is in contact with the media.
4. The grating system shall be designed to prevent damage to the tube settler media, and allow for ease of placement and removal.

C. Support System:

1. The support system shall be constructed of 304 stainless steel as designed and provided by the maker of the tube settlers.
2. The support structure shall be designed to support 15 pounds per sq. ft. of tube settler area (psf) which includes the module dead weight plus a movable live load of 250 lbs concentrated over a one sq. ft. area.
3. Drawings and calculations shall be sealed by a registered Professional Engineer who is regularly involved with the design of tube settler support structures and verifies the support structure meets or exceeds the loading criteria above with a reasonable "industry" safety factor.

D. Baffles:

1. Shall be constructed of corrugated PVC panels (1/8" thick) or Flat FRP sheet (3/16" thick) with a structural 304 stainless steel frame.
2. The structural steel frame shall be fabricated of 304 stainless steel. The panels shall be attached by means of *304 stainless steel* fasteners to provide an adequate secure attachment.

E. Troughs and Weirs:

1. The effluent collection troughs shall be manufactured of FRP and shall be shown in the project drawings. The troughs will be of round bottom design with FRP V-notch weirs. The thickness of the troughs shall be determined by the manufacturer but shall be a minimum of 1/4 inch with suitable stiffeners molded integrally as needed. The inside of the trough shall provide a smooth flow surface. All brackets, trough supports, reinforcing sections, stiffeners, flanges and fasteners shall also be of Type 304 stainless steel.
2. The effluent troughs shall be provided with adjustable V-notch weirs as required to convey the settled water to the effluent troughs. The V-notch weirs shall be a minimum of 3 inches deep. The level of weirs on the launders shall be adjustable by means of slotted holes and connection hardware.

F. Welding materials:

1. In accord with AWS specifications.
2. Compatible with materials being welded.

1.10 FABRICATION

A. Tube Modules:

1. All PVC sheets shall be thermoformed and have a continuous, dedicated glue guide to allow precise alignment of sheets during assembly and installation. Non-thermoformed sheets, which do not provide dedicated guides for precise tube alignment, are not acceptable.
2. Fabricated modules shall be comprised of tube-like channels sloped at an angle of about 60° placed in same direction to prevent mixing points and unstable flow patterns. Modules consisting of tubes in alternating directions are not acceptable.
3. Tube settler modules shall have a minimum vertical height of 24 inches.
4. The settling tube length (consistent with efficient solids separation) shall not be less than 27.5 inches. (Tube settler modules shall have a minimum tube length of 27.5 inches.)
5. Rectangular or square shape tubes or "cross-flow" tube settlers shall not be acceptable.
6. Tube Settlers must be uni-directional. (All tubes must be oriented in the same direction without exception.)
7. Tube settlers with alternating tube direction shall not be allowed without exception.
8. Join PVC sheets and channels by solvent bonding to provide a rigid structure, resistant to separation of sheets

B. Structural steel for tube module supports:

1. Fabricate all structural steel components as shown on the drawings and to comply with AISC Code of Standard Practice.
2. Accurately cut and mill ends of members to provide neat appearance and to provide full contact of surfaces prior to welding and joining.
3. Camber horizontal members to accommodate dead load deflection.
4. Fabricate items with joints neatly fitted and secured.
5. Grind exposed welds smooth and flush with adjacent surfaces.
6. Where mechanically fastened, make exposed joints flush butt type hair line joints.
7. Where mechanical fastening in field, provide slotted holes.
8. Supply components necessary for complete anchorage and fastening of metal fabrications.
9. Fit and shop assemble as appropriate for delivery to site.

1.11 PREPARATION

- A. Field measurements:
 - 1. Field-verify all dimensions affecting installation.
 - 2. Layout all work prior to installation.
- B. Protection:
 - 1. Protect adjacent surfaces, piping and other items.
 - 2. Protect tube settler material as outlined in Section 1.06B.

1.12 INSTALLATION

- A. Approval for installation or incorporation in this project will be made only after submittal of shop drawings, or other data as specified herein.
- B. The tube settler modules shall be installed in accordance with the manufacturer's recommendations.

1.13 INSTALLATION SUPERVISION

- A. Tube settler system manufacturer shall provide the services of a qualified field installation supervisor.

1.14 WARRANTY

- A. Tube settler system shall be guaranteed to be free from defects in material for a period of 1 year from date of Substantial Completion by Owner.

END OF SECTION

SECTION 2 FLOCCULATORS

2.01 GENERAL

The flocculator assembly shall be supplied complete with electric motor, variable frequency drive, controls, gear reducer, shaft and impeller assembly. Entire assembly shall be mounted on common baseplate or flange. Tank, flocculator supports, and other appurtenances necessary for proper operation shall be provided by others in accordance with the manufacturer's recommendations.

2.02 DRIVE DESIGN

Only drive units specifically designed for agitator service and suitable for 24 hour per day operation under moderate to heavy shock loads will be acceptable. Each drive unit shall consist of an electric motor and a gear reducer with a flexible coupling provided between the motor and gear reducer. Direct-connected motors, hollow-shaft connections and integral gearmotors are not acceptable.

Each agitator drive shall consist of a rugged grey cast iron speed reducer. Housing shall be SAE Class 30. Lifting lugs shall be provided on the speed reducer and motors, above 180TC frame. Motor shall be readily separable from gear reducer.

The gear reducer shall be parallel-shaft, double or triple reduction utilizing only helical gearing. All helical gears shall be fabricated from SAE 8620 steel, carburized to a hardness of 58-62 Rockwell C. Gears shall be ground to AGMA Quality Level 12. Gear drive shafts shall be oversized to accommodate all overhung loads.

High speed input shaft bearings shall be heavy duty ball bearings. Intermediate shaft bearings and low speed output shaft bearings shall be tapered roller bearings.

All bearings shall have a minimum B-10 rating of 100,000 hours.

Gear reducer lubrication shall be by means of an oil bath. All bearings shall be oil lubricated. Low speed output shaft shall be sealed using double quadralip oil seals. Oil drain and fill plugs shall be easily accessible.

Gear reducer shall carry a minimum AGMA service factor of 1.50 based on motor nameplate horsepower. Rating is based on electric motor driven speed reducers operating 24 hours per day under moderate to heavy shock load conditions. All drive components shall be designed for outdoor or other environmental conditions, as noted.

Drive to include Stober Comtract mechanical variable adjustable speed drive, wash down duty with face input and output.

2.03 SHAFT DESIGN

Agitator shaft shall be designed to withstand all torsional and bending stresses without the use of bottom or intermediate shaft bearings. Combined shaft stress shall not exceed 8,000 psi based on a

material ultimate yield stress of 30,000 psi. Operating speed shall not exceed 70% of first natural lateral critical speed. Shaft shall be straightened to a maximum total indicated runout of 0.003” per foot of length.

2.04 IMPELLERS

Impellers shall be of the quantity and size as specified. Impellers shall be high efficiency hydrofoil design to produce high volumetric flowrate at low power investment. Impellers shall be four blade design attached to a central hub. Impeller attachment to shaft shall be by means of a key and keyway or by means of a split and clamped hub arrangement. Method of attachment shall be adequate to transmit 150% of operating torque.

2.05 MOTORS

Electric motors shall be NEMA B design, squirrel cage induction type for normal starting torque. Motors shall be vertical, shaft-down, C-flange mounted with TEFC enclosure, 1.15 service factor, and class F insulation, suitable for operation on 3/60/230-460V service. Motor shall be connected to gear reducer through a flexible coupling. Coupling shall be rated for 150% of operating load.

2.06 PAINTING

All drive components and carbon steel non-wetted parts shall be painted in accordance with agitator manufacturer’s standard practice. Paint shall be industrial acrylyd acrylic enamel applied in three coats, one coat of primer and two top coats having a total dry film thickness of 4-5 mils.

2.07 QUALIFICATIONS

Flocculation agitation equipment shall be SHARPE N-Series type as manufactured by the Burhans-Sharpe Co., or equal. Suppliers shall exhibit experience in the supply of mechanical agitation equipment of similar size and service to the specified design conditions.

2.08 DESIGN CONDITIONS

New Flocculators: Two (2) required

Motor: Minimum Horsepower: 1 hp, 1750 RPM, 3 Ph, 60Hz, 230/460 Volt, inverter duty

Drive: The flocculation manufacturer shall provide a variable frequency drives to control two flocculators, in a handrail mounted Nema 4X enclosure suitable for outdoors operation with controls as listed. Provide a total of one (1) enclosure for two (2) flocculators.

A. Type: Variable frequency consisting of an input full wave rectifier and output inverter capable of producing constant volts per hertz output suitable for operating the flocculator

drive motors as required. Drives shall be the pulse width modulated 2 circuit board design with power components on one board and control components on another board.

B. Rating:

1. Speed Range: 6 to 60 Hz with a constant torque load.
2. Efficiency: 95% minimum at 100% speed.
3. Service Factor: 1.0 continuous: 1.5 for one minute.
4. Speed Regulation: 3 percent of flocculator operational output speed.

C. Protected Features: Output contactor to disconnect the motors when the drive is off. Interlock contactor with drive to prevent starting unless the drive is at zero volts and hertz. Provide restart delay to allow equipment to coast to rest before restarting. Output contactor may be rated in accordance with NEMA or IEC standards.

Solid state protective circuits with diagnostic capabilities for over/under voltage, loss of voltage, inverse time and instantaneous over current, phase loss, phase unbalance, and thermal overload. Each motor will be provided with a current overload independent of the VFD. Activation of all protective functions shall be accomplished without damage to the drive and without need to replace any components. Over/under voltage and loss of voltage are to reset automatically when voltage returns to normal; all other conditions are to be manually reset.

Provide protective circuitry, if not inherent in the drive design, to shut down without damage to the drive if an out of synch condition occurs, running drive connected to a stopped motor, plug reversal or motor stall.

Where motor temperature switches are specified, provide circuitry to shut down the drive if the switch opens.

D. Input Voltage and Phase: 480-volt, three phase.

E. Enclosure: Handrail mounted Nema 4X. 24"x20"x10" with hinged door. All operating functions shall be available by opening the door.

F. Controls: Provide the following operator control devices.

- Illuminated start/stop pushbuttons and speed adjustment pot
- Fault indicating light
- Inverter/bypass switch
- Three (3) ac contactors
- Two (2) overload relays
- Thru the door fused disconnects
- 250vA control power transformer
- Laminated nameplates shall be provided.

Impeller: one (1) 316 SS, 45" dia Hydro 218, operating at 40 RPM

Shaft: 1.75" dia, solid shaft, 316 SS

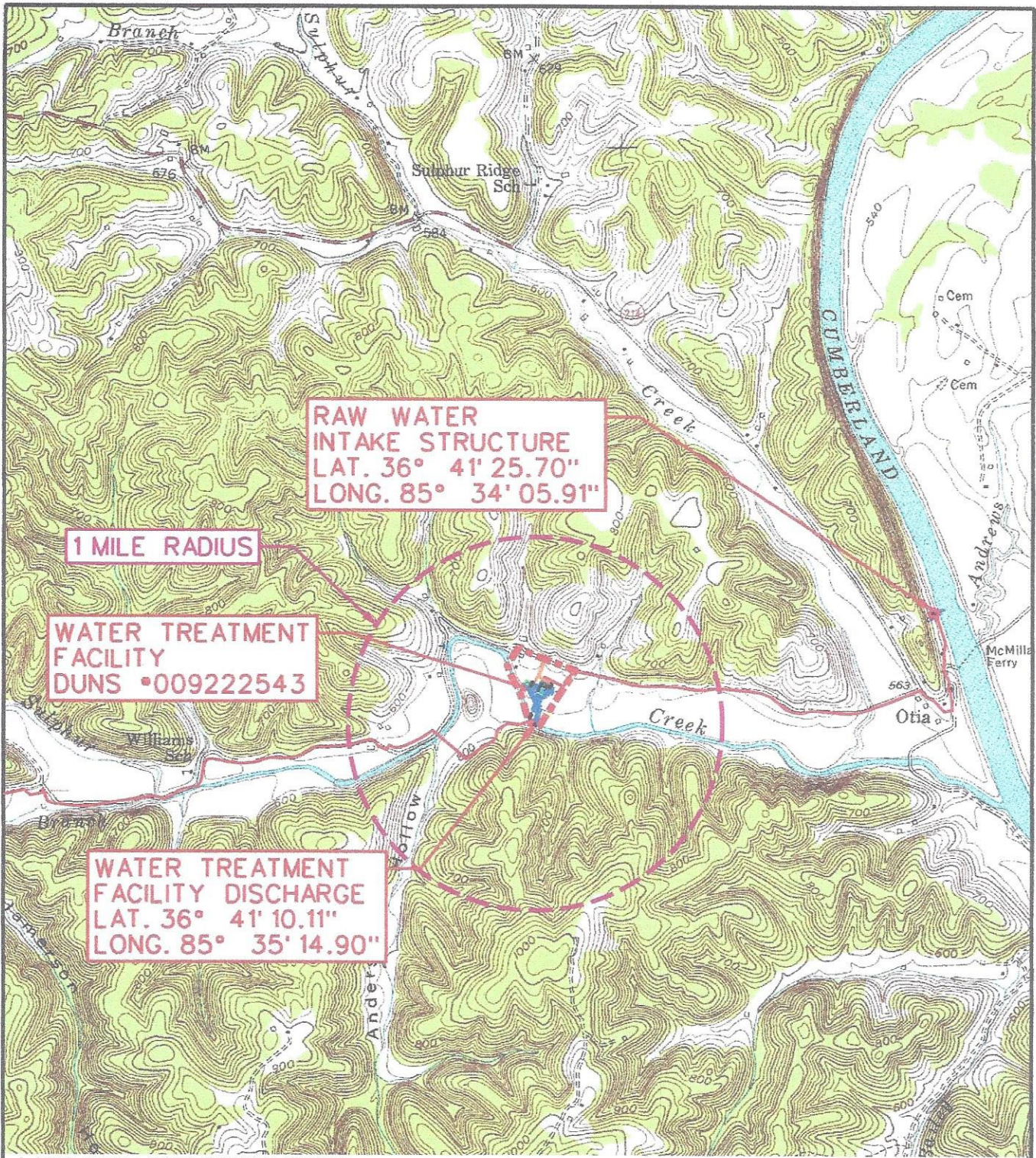
END OF SECTION

EXHIBIT 8

**Monroe County Water District
Proposed Location**

The water treatment facility is located on a 12-acre tract of land in Monroe County. The facility is located along Big Sulphur Road, approximately west on 1.0 mile from the intersection of Big Sulphur Road and Kentucky Highway 214. The proposed flocculation and sedimentation basin is located on the northeast sector of the tract.

EXHIBIT 9



LATS AND LONG TAKEN FROM
TOPO MAP COORDINATES

VERNON 7.5 MIN. QUAD
MONROE COUNTY, KENTUCKY

DICHARGE PERMIT



**STIGALL
ENGINEERING
ASSOCIATES, INC.**

4117 HILLSBORO PIKE - SUITE 206
NASHVILLE, TENNESSEE 37215

TELEPHONE (615) 460-7515
FACSIMILE (615) 460-7517

DATE
JAN. 2018

SCALE
1" = 2000'

DRAWING NO.
1 of 1

EXHIBIT 10

Monroe County Water District
Additional Flocculation/Sediment Basin 1.0 MGD

Use 20' x 26' for flocculation basin
Use 80' x 26' for sedimentation basin
Total depth of basin 9 feet, water depth 8 feet.

Flocculation Basin:

Use 2 stage flocculation.

Detention time = $20' \times 26' \times 5.5' = 2,860 \text{ ft}^3 = 21,392 \text{ gallons @ } 700 \text{ GPM} = 30.6 \text{ minutes.}$

Flocculation Velocity:

Stage #1: $700 \text{ GPM} = 1.56 \text{ cf/s} = 93.6 \text{ cf/m} \div 12.5 \times 5.5 = \text{cross section} = 68.75 \text{ ft}^2 = 1.36 \text{ ft/minute}$

Stage #2: $700 \text{ GPM} = 1.56 \text{ cf/s} = 93.6 \text{ cf/m} \div 13 \times 5.5 = \text{cross section} = 71.5 \text{ ft}^2 = 1.31 \text{ ft/minute}$

Sedimentation Basin:

Detention time = $80' \times 26' \times 8 \text{ feet} = 16,640 \text{ ft}^3 = 124,467 \text{ gallons @ } 700 \text{ GPM} = 177.8 \text{ minutes} = 2.96 \text{ hours, use tube settlers.}$

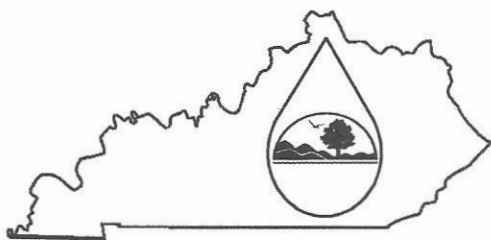
Tube settlers are: $26' \times 14' = 364 \text{ ft}^2$, loading rate = 1.92 GPM/ft^2

Use 104 feet of weir @ $700 \text{ GPM} = \text{loading rate } 700 \div 104 = 6.73 \text{ GPM/l.f.}$

Sedimentation Basin Velocity:

Velocity: $700 \text{ GPM} = 1.56 \text{ cf/s} = 93.6 \text{ cf/m} \div 26' \times 8' \text{ cross section} = 208 \text{ ft}^2 = 0.45 \text{ ft/minute}$

EXHIBIT 11



Commonwealth of Kentucky
Energy and Environment Cabinet
Division of Water

**Construction Application
For Drinking Water Treatment**

See the instructions for more information about selected portions of this application.
Questions on completing this application? Contact the Water Infrastructure Branch at 502/564-3410, by e-mail at WIBEngineering@ky.gov or visit our website at <http://water.ky.gov> for more information.

I. Treatment Project Information

Project Name: Monroe County Water Dist. Phase IX Improvements Contract I: WTP - Change Order 8

Project County: Monroe Estimated Project Cost: \$11,000,000

Project Latitude/Longitude (DMS): 36 41 17.15421 85 35 15.28793

Is this a federally funded project:

- DWSRF
- SPAP
- Other: KIA

If yes, has an Environmental Information Document (EID) been reviewed and approved? Yes

If the project has been submitted to the State Clearinghouse for review, provide the SAI number: KY20130607-0609

Identify all other funding sources: _____

Does this project modify an existing water treatment plant? Yes, this adds an alternate treatment train

Provide a DETAILED description of work to be performed for this project. Attach additional sheets as necessary:

The project consists of the addition of a 1.0 MGD flocculation and sedimentation basin at the WTP.

Identify how the sanitary wastewater produced as a result of this project will be handled:

- Sanitary Sewer WWTP: _____
- Septic Tank
- Other: Service area will not change; net new wastewater is N/A

II. Utility Information

Utility Name: Monroe County Water District PWSID: 0860150

Street Address: 205 Capp Harlan Road County: Monroe

City, State, Zip: Tompkinsville, Kentucky 42167

Phone #: (270) 487-8131 Fax #: (270) 487-0932 Email: mcwdjd@srtc.com - mcwdrr@srtc.com

Is the system currently under any type of waterline sanctions or Agreed Orders? No

If yes, will this project satisfy the terms of or alleviate an agreed order, water budget or any other form of sanction? N/A

If yes, describe: N/A

III. Design Considerations

A. Plans and Specifications

Plans and specifications shall comply with **401 KAR 8:100** and **“Recommended Standards for Water Works” 2007 Edition (Ten States’ Standards)**. All plans must contain a P.E. seal, signature and date of signature with at least one set having an original seal and signature. Provide detailed plans (**no larger than 24” X 36”**) which must comply with **401 KAR 8:100**. See the instructions for additional details.

B. Design Engineer

Name: Robert D. Stigall, P.E. Firm: Stigall Engineering Associates, Inc.
Street Address: 4117 Hillsboro Pike, Suite 206
City, State, Zip: Nashville, Tennessee 37215-2728
Phone #: (615) 460-7515 Fax #: (615) 460-7517 Email: rstigall@bellsouth.net

C. Design Capacities

Communities Served: Monroe County and Fountain Run
Identify the number of connections in the service area: Monroe County: 3,347; Fountain Run: 600
Current Treatment Plant Design Capacity: 1.88 Proposed Treatment Plant Design Capacity: 1.88 MGD
Has a Preliminary Engineering Report been submitted and approved? Yes
Have Water Withdrawal and KPDES permits been updated? Yes
KPDES Permit # KY0112381 Water Withdrawal Permit # 1652

What type of treatment is/will be used:

- Conventional
- Ballasted Flocculation
- Membrane
- Dissolved Air Flotation
- Other: Actiflo

Is pilot study data provided? No

D. Other Information to be Submitted with Project

1. Site

- Provide a copy of the U.S.G.S. 7 ½ minute topographic map with the location(s) of the proposed project.
What is the 100 year flood elevation for the project site? 534.50 MSL
What is the 500 year flood elevation or flood of record for the project site? Unknown

2. Intake and Raw Water Transmission

Provide the Latitude and Longitude (DMS) of the intake and River Mile Index if known:
Latitude: 36 41 25.70434 Longitude: 85 34 05.91278 River Mile Index: 393.7
What is the raw water source? Cumberland River

Provide water level elevations for surface water sources:

Low Level: 499.00

Normal Level: 512.50

Flood Level: 534.50

For surface water sources, what type of intake will be used?

- Floating
- Screened
- Wet Well
- Other: _____

Does the intake have the capability to draw from multiple levels? Yes If yes, explain: _____
Intake structure has two intake screens at different elevations.

Is the intake screened? Yes

Is a method for cleaning provided? _____ If yes, describe: _____
Air burst

Where is the raw water sample tap located? Just outside the water treatment plant

Are any chemicals fed at the intake? Yes If yes, list: _____
Potassium Permanganate

Is the intake more than 5 miles downstream or 1,000 ft upstream of any sewage outfall? None

What is the flow rate into the intake? 1,400

If a groundwater source is used:

Number of Wells: N/A Well Capacities: _____

Provide water quality and quantity data for test wells.

Raw Water Pump Data:

Number of Pumps	Capacity (GPM)	TDH	Power (HP)
2	1,400	130	100

Are variable frequency drives (VFD) to be used? Yes

Provide proposed pump's characteristic curve along with the efficiency, horsepower and NPSHR data.

Raw Water Transmission Main Data:

Waterline Material	Waterline Size	Linear Feet
PVC	12-inch	7,426

Are any chemicals fed in the raw water transmission main or wet-well? Yes

If yes, list: Potassium Permanganate

3. Pretreatment/Equalization

Basin Volume: _____ Dimensions: _____

Purpose: _____

Are any chemicals fed here? _____ List the chemicals fed along with the feed locations: _____

Is aeration used? _____ If yes, purpose and type. _____

Are provisions to feed carbon provided? Yes _____ Rate: 0 - 0.75 Gallon/Minute Slurry _____

4. Rapid Mix

Type of Rapid Mix:

Static Mixer

Conventional Rapid Mix

Other: _____

Number of Mixing Basins: _____ Volume: _____ Dimension: _____

Retention Time: _____ Velocity Gradient (G): _____

5. Flocculation

Number of trains: 1 _____ Number of Stages: 2 _____

Basin Volume: 21,392 Gallons _____ Dimensions: 20' x 26' x 5.5' _____

Detention Time: 30.6 minutes _____ Flow through Rate: 1.36 ft/min _____

Mixer Speed (sec): Adjustable _____ Is the flocculation speed tapered through the process? Yes, adjustable _____

6. Sedimentation

Flow Velocity from Flocculation to Sedimentation: 1.31 ft/min _____

Volume: 124,467 _____ Dimensions: 80' x 26' x 8' _____

Flow Through Velocity: 0.45 ft/min _____ Detention Time: 2.96 hours _____

Overflow Rate (gpm/ft²): 0.34 _____ Weir Loading Rate (gpd/ft): 6.73 GPM/ft _____

Are tube settlers to be used? Yes _____ Dimensions: 26' x 14' _____

Are Plate Settlers Used? _____ Dimensions: _____

What percentage of the projected horizontal plate area is the overflow rate for plate settlers based? _____

Is a sludge collection system provided? Yes _____ Describe: _____

Slope to drain then sludge press _____

Is Ballasted Flocculation used? No _____

If yes, provide the following:

Number of trains: _____ Capacity: _____ Basin Volumes: _____

Basin Dimensions: _____ Retention Time: _____

Number of Hydrocyclones: _____ Hydrocyclone Capacity (GPM): _____

Number of Recycle Pumps: _____ Recycle Pump Capacity (GPM): _____

Overflow Rate (GPM/ft²): _____ Number of Contact Basins: _____

Contact Basin Volume: _____ Contact Basin Dimensions: _____

Contact Time: _____

7. Filtration

Granular Media

Type of Filtration: Conventional Gravity Number of Filters: Two

Filter Area: 261.3 each Total Filter Box Depth: _____

Media	Depth	Effective Size	Uniformity Coefficient
Silica Sand	9-inches (minimum)	0.45-0.55 mm	1.5 (maximum)
Anthracite	18-inches (minimum)	1.00-1.10 mm	1.4 (maximum)

Filtration Rate at Design Capacity: 2.0 MGD

Number of Backwash Pumps	Capacity	TDH	Power (HP)

Backwash Rate: 18 GPM/sf

What is the source of the wash water supply? Filtered water from clearwell

Is air scouring or surface wash utilized? Yes Which? Air scour

Number of Backwash Troughs: Two/filter Dimensions: 34" deep/24" wide

Design Flow (gpm): 1,306 Distance from media surface to bottom of backwash trough: 39 inches

Are rate of flow controllers provided for backwashing? Yes

Is filter-to-waste capability provided? Yes

Turbidimeter Locations:

- Raw Water
- Top of Filter
- Individual Filter Effluent (prior to filter-to-waste)
- Combined Filter Effluent
- Other: _____

Membranes

Type of membrane: N/A Capacity: _____ # of Skids: _____

Water Flux Rate (gpd/ft²): _____ Permeate Recovery (%): _____

Operating Pressure (psi): _____ Design Temperature (°F): _____

What cleaning agent will be used? _____ Cleaning Frequency: _____

Provide capacity calculations used to size membrane filters.

8. Clearwell

Number of Clearwells	Capacity	Dimensions	Baffled (yes/no)
1	250,000 Gallon	41.5' x 68' x 12'	Yes

If an offsite tank is used as a clearwell, provide location, coordinates and capacity: _____

Provide Contact Time (CT) Calculations.

9. High Service Pumps

Number of Pumps	Capacity (GPM)	TDH	Power (HP)
2	1,400	625	300

Are variable frequency drives (VFD) to be used? Yes

Provide proposed pump's characteristic curve along with the efficiency, horsepower and NPSHR data.

10. Disinfection

Check all forms of disinfection to be used:

- Chlorine Gas
- Hypochlorite
- Chloramines
- UV
- Other: _____

List the locations of all disinfectant injection points: _____

Chlorine Room Information:

Exhaust Fan Capacity (cfm): 1,000 Air Exchange Rate: 3.5 minutes

Are air inlet louvers near the ceiling? _____ Do ventilation fans take suction near the floor? _____

Is the chlorine room equipped with panic hardware and alarms? _____

Is a bottle of Ammonium Hydroxide provided? _____

Does the chlorine room have a shatterproof inspection window? _____

Is SCBA equipment meeting NIOSH requirements located outside of the chlorine room? _____

Are separate switches for fans and lights provided outside of the chlorine room? _____

Is a gas scrubber provided? _____

UV Information:

UV Wavelength: _____ Dosage (MJ/cm²): _____

Are the bulbs protected? _____

Is the UV assembly accessible for cleaning and replacement of the bulbs, jackets, etc? _____

Is a sensor provided to ensure UV light is being delivered at the appropriate wavelength and dosage? _____

Ammonia Information:

Exhaust Fan Motor Capacity (cfm): _____ Air Exchange Rate: _____

Is ammonia room equipped with panic hardware and alarms? _____

Does the ammonia room have a shatterproof inspection window? _____

Are separate switches for fans and lights provided outside of the room? _____

Is a gas scrubber provided? _____

11. Other Chemicals

Provide information about chemicals to be used in the treatment process below:

Chemical	Purpose	Feed Location	Bulk Tank (gal)	Day Tank (gal)	Feed Rate at Design Capacity
Aluminum Chlorohydrate	Coagulation	Pre	3,000	350	35 gallons/day
Flouride	Dental	Post	N/A	55	3 gallons/day
Sodium Hypochlorite	Disinfection	Pre/Post	300	55	30 gallons/day
Potassium Permaganate	Oxidation	Pre	N/A	55	4gallons/day

Will Carbon be added as a premixed slurry or dry feed? Dry

If dry feed, what is the hopper capacity? 3 ft³

Are fireproof/explosion proof precautions provided? Yes Describe: _____

All electrical components are explosion proof.

Are floor drains and containment provided? Yes

Chemical	Containment Capacity

12. Treatment Wastewater

Disposal Method for Treatment Wastewater:

- Lagoons
- Dewatering
- Other: Sediment basin

How much treatment wastewater does the water treatment plant produce? Estimated 60,000 GPD

Lagoon capacity: _____

Where does the decant water discharge? _____

13. General

- Provide a process flow schematic.
- Provide a signed letter of acceptance from the utility, which states that the utility has reviewed and approved the plans and specifications.
- If the project is funded by a State Revolving Fund Loan (SRF) provide a completed SRF Plans and Specifications Checklist along with 1 complete printed copy of the project specifications.

IV. Fees

Check or money order must be made payable to "Kentucky State Treasurer" for the total amount. Fees do not apply to projects FUNDED by a municipality, water district, or other publicly owned utility.

Project Category: _____ Total Amount: \$ _____

FROM RAW WATER INTAKE

FLOW TRAIN #1

NEW FLOCCULATOR
SEDIMENTATION BASIN

ACTI-FLO

FLOW TRAIN #2

FILTERS

TO CLEARWELL

WTP FLOW SCHEMATIC

DATE
APRIL 2018



**STIGALL
ENGINEERING
ASSOCIATES, INC.**

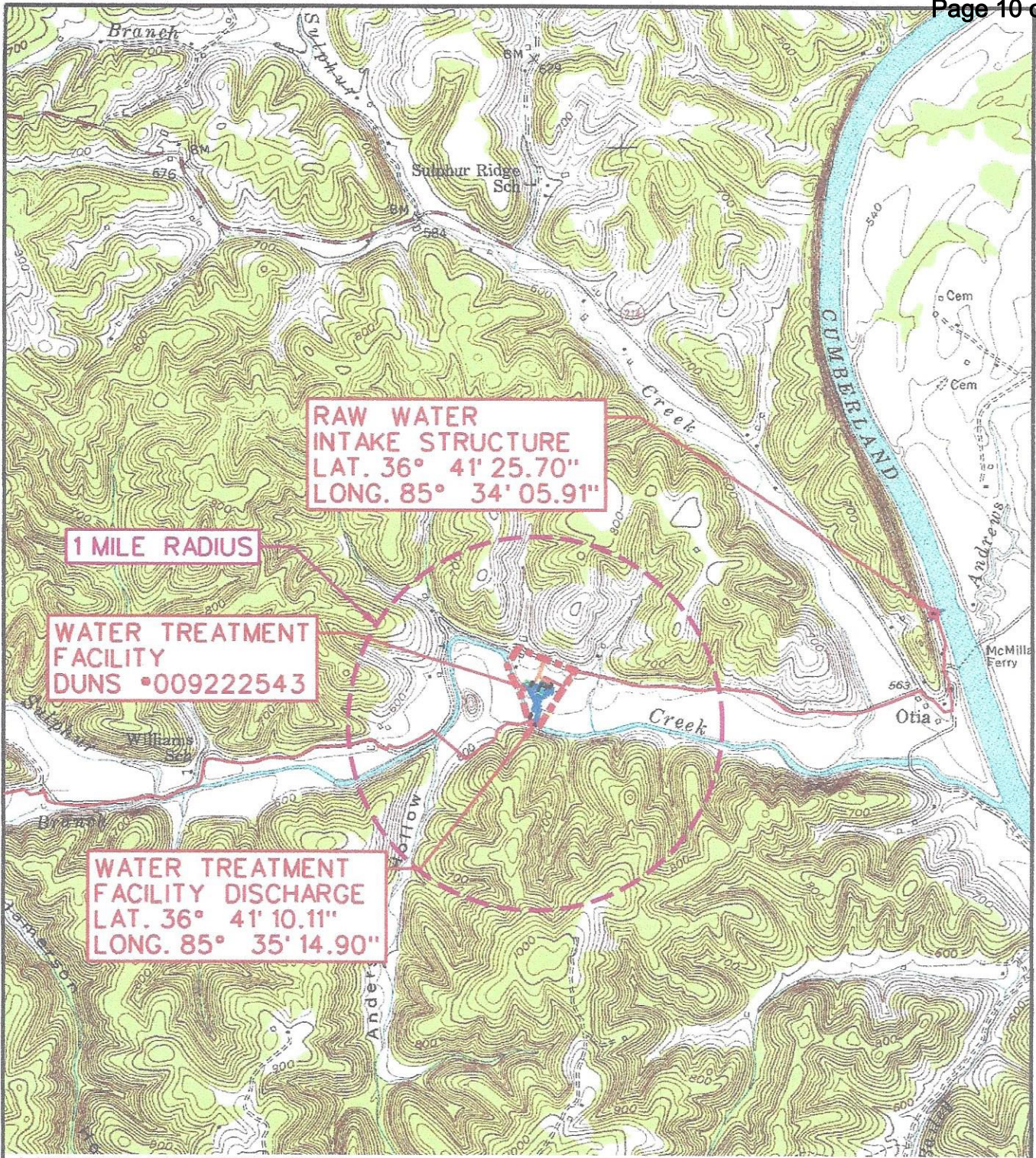
4117 HILLSBORO PIKE - SUITE 206
NASHVILLE, TENNESSEE 37215

TELEPHONE : (615) 460-7515
FACSIMILE : (615) 460-7517

2007 WATER SYSTEM IMPROVEMENTS
FOR
MONROE COUNTY WATER DISTRICT
CONTRACT I - PHASE IX
WATER TREATMENT PLANT

SCALE
NONE

DRAWING NO.
FIG. I



LATS AND LONG TAKEN FROM
TOPO MAP COORDINATES

VERNON 7.5 MIN. QUAD
MONROE COUNTY, KENTUCKY

DICHARGE PERMIT



STIGALL
ENGINEERING
ASSOCIATES, INC.

4117 HILLSBORO PIKE - SUITE 206
NASHVILLE, TENNESSEE 37215

TELEPHONE (615) 460-7515
FACSIMILE (615) 460-7517

DATE
JAN. 2018

SCALE
1" = 2000'

DRAWING NO.
1 of 1

Monroe County Water District

205 Capp Harlan Road
Tompkinsville, Ky 42167
Phone: 270-487-8131
Fax: 270-487-0932

April 12, 2018

Mr. Terry Humphries, P.E., Supervisor
Engineering Section
Water Infrastructure Branch
Kentucky Division of Water
300 Sower Boulevard
Frankfort, Kentucky 40601

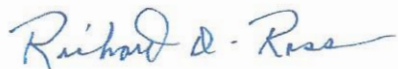
Re: Monroe County Water District – 34034
PSID No. 0860150-09-003
Phase IX Water System Improvements
Contract I: Water Treatment Facility
Change Order 8

Dear Mr. Humphries:

The purpose of this correspondence is to advise the Division of Water that the Monroe County Water District as reviewed and endorses change order eight for the referenced project.

Thank you very much for the assistance that you and the Division have provided on this project and please contact me if additional information would be helpful.

Sincerely,
MONROE COUNTY WATER DISTRICT



Richard O. Ross
Manager

RR/jd

EXHIBIT 12

CHANGE ORDER

Date: April 12, 2018
Project: MCWD Phase IX – Contract I: WTP
Contractor: Judy Construction, Inc.

Change Order No.: Eight (8)
SEA Project No.: 0323-1

The Contract for Construction as amended by the Change Order:

1. Addition of 1.0 MGD flocculation and sedimentation basin to provide alternate treatment train to the facility (lump sum) \$ 691,551.00

- Total \$ 691,551.00

2. Add 240 consecutive contract days to contract to perform work listed in Item 1. The new contract date of completion shall be October 31, 2018.

Justification: Addition of 1.0 MGD flocculation and sedimentation basin to provide alternate treatment train to the facility.

Compensation to Contractor

Original Contract Amount	\$ 10,808,000.00
Net Change by Previous Change Orders	\$ -228,634.11
Amount of this Change Order	\$ 691,551.00
New Contract Amount	\$ 11,270,916.89

This Change Order is intended to, and the Contractor agrees that it does, fairly and adequately compensate the Contractor for extra direct costs (labor, materials, etc.) as well as all expenses and damages which may result from any delays, suspensions, stretch-outs, scheduling, inefficiencies, and accelerations in the Work associated with this Change Order, and the Contractor releases the Owner and the Engineer from any claims for such expenses and damages, including but not limited to changes in sequence of work, delays, disruption, rescheduling; extended overhead; acceleration; wage; material; or other escalations; and all other impact costs.

This Change Order is intended to, and the Contractor agrees that it does, provide the Contractor a reasonable and adequate period of time in which to complete the Work in accordance with the Contract for Construction, as amended by this Change Order, and the Contractor releases the Owner and the Engineer from any claims for additional time to perform the Work.

MONROE COUNTY WATER DISTRICT

Mark Williams 4-12-18
Mark Williams, Chairman Date

JUDY CONSTRUCTION, INC.

Tom McConathy 4-12-18
Tom McConathy, Project Manager Date

STIGALL ENGINEERING ASSOC., INC.

Robert D. Stigall 4-12-18
Robert D. Stigall, P.E., President Date

EXHIBIT 13

MINUTES OF
MONROE COUNTY WATER DISTRICT
MEETING

DATE: April 9, 2018
TIME: 7:00 P.M.
PLACE: Monroe County Water District Office

The meeting was called to order by Chairman Mark Williams. Present were Vice Chairman Mike Emberton, Treasurer John Thompson, Secretary, Dr. Kenneth Crabtree and Commissioner Johnny Miller. Also present were General Manager Ricky Ross, Office Manager Jana Dubree, County Judge Executive Tommy Willett, County Attorney Wes Stephens, Office Clerk Miranda Williams, Operator Kerry McPherson, Treatment Operator Robert Capps, Engineer Robert Stigall, Andrew Page, JB Walden and Roger Smith.

A copy of the minutes from the March 12, 2018 meeting had been given to each Commissioner. The motion was made by Mike Emberton and seconded by Johnny Miller to approve the minutes as written on March 12, 2018. The motion carried.
(All voted aye.)

A copy of all bills due was given to each Commissioner. The motion was made by Dr. Kenneth Crabtree and seconded by Mike Emberton to pay all bills due. The motion carried. List of bills below: (All voted aye.)

AFLAC - <i>Employee w/h Ins.</i>	641.64
Anthem Blue Cross & Blue Shield - <i>Health, Life & Dental Ins.</i>	11,126.19
Aramark - <i>uniforms (Plant 462.89; Maint. 576.70)</i>	1,042.59
Barren Co Business Supply - <i>pens, calc. tape, calculator & etc</i>	266.17
Bluegrass Cellular - <i>7 cell phones service/GPS Hot spot/antenna/router</i>	267.28
Bond Fund - <i>Sinking Acct transfer</i>	16,312.00
Bruton's Supply - <i>WTP supplies; flags; battery; locks</i>	320.80
C I Thornburg - <i>chemicals</i>	3,875.19
Cintas - <i>medical cabinet supplies & gloves</i>	219.46
City of Tompkinsville - <i>water resale 19,589,600 (2/1/18 - 3/1/18)</i>	58,768.80
City of Tompkinsville - <i>office & shop</i>	260.55
City of Tompkinsville - <i>1st qrt occup tax</i>	910.44
Department of Revenue - <i>School tax</i>	4,409.13
Emergency Operating Acct - <i>transfer</i>	1,000.00
Fisher Auto Part - <i>brake caliber/GMC truck</i>	68.87
Floormaster - <i>March buff</i>	45.00
Fouser Enviromental Services - <i>March BacT samples</i>	528.00
G&C Supply - <i>meters & supplies</i>	6,691.09
Glass Aggregates - <i>Gravel (B Froedge)</i>	119.50
Grandview Welding & Equipment - <i>Welding rods</i>	125.00
HACH - <i>sample supplies</i>	584.75
Integrity One Technologies - <i>monthly maintenance</i>	147.83
Jana Dubree - <i>cell reimburse</i>	75.00
KIA Bond & Interest Fund - <i>monthly transfer</i>	6,500.00
King Auto Parts, LLC - <i>oil; filters; brakes; rotors</i>	647.42

KY State Treasurer – <i>Employees' state w/h taxes</i>	1,770.42
KY State Treasurer – <i>March Sales Tax</i>	374.46
KY Underground Protection – <i>30 tickets @1.50 February</i>	45.00
Marathon – <i>572.01 gallons fuel</i>	1,330.69
Micro-Comm – <i>Annual service agreement</i>	6,000.00
Monroe County Conservation – <i>20' felt @ 2.00/B. Froedge</i>	40.00
Monroe County Press – <i>2 Public Notice (Financials & Mowing for bid)</i>	61.00
Monroe County Treasurer – <i>1st qrt occup tax</i>	1,441.06
Monroe Feed & Farm – <i>oil for chain saw/weedeater</i>	13.49
North Central Security Systems	29.95
Paul's Lawn & Turf – <i>power saw part</i>	31.45
Pentegra Retirement Service – <i>one time setup cost</i>	750.00
Petty Cash – <i>postage</i>	
SCRTC – <i>phone/2 DSL/cable</i>	409.33
Sam's Club – <i>Annual membership</i>	45.00
Stephanie Young - <i>3470 meters @ 1.05</i>	3,643.50
Travis Oil Company – <i>128 gallons fuel</i>	330.31
Travis Tire – <i>4 tires (GMC Truck)</i>	532.00
Tri County Electric	7,914.72
United States Postal Service – <i>billing postage</i>	415.40
United Systems & Software – <i>Monthly TPM package</i>	1,075.00
United Systems & Software – <i>checks</i>	361.30
USA Bluebook – <i>WTP safety equipment</i>	985.52
VISA – <i>Office & WTP supplies</i>	957.25

Advertisement for mowing service for Monroe County Water District was ran in the local newspaper. Monroe County Water District received 10 sealed bids for mowing service they each were open and read aloud and were as follows:

	Contractor	Bid Amount
1	B&B Lawn Care C/O Benny Bartley	1450.00
2	Nathan Fox	1000.00
3	Elijah Gerald	1001.00
4	Shawn Massingille/Mark Walker	1580.00
5	Page Lawn Care	2800.00
6	Jimmy Simmons	1800.00
7	Brandon Williams	1026.00
8	Bobby Harlan	1110.00
9	Classic Clean C/O Thomas Dodson	1469.50
10	JB Walden	1175.00

There was much discussion over the bids. The motion was made by Mike Emberton to reject all bids. The motion was seconded by Johnny Miller. The motion carried.
(All voted aye.)

Mr. Roger Smith came before the Board to discuss an issue he has been having with the filters used at his poultry farm. He has to change out the filters every 3-4 days. The filters use to be good for a lot longer period of time. There are a couple other poultry farms that have had the same issue but their problem seems to have improved. Mr. Smith stated they sent off water samples to see if that would give any answers but was not of any help. No action taken.

Mr. Stigall presented the Board with information from Division of Water. He stated he had submitted all plan and information requested to Terry Humphries with Division of Water. Mr. Stigall stated he had tried to contact Mr. Jory Becker twice and had not heard back from him yet. Mr. Stigall gave each Commissioner a copy of the Water Treatment plant project budget including invoices still to pay. Also, he discussed change order number 7 and 8 with the Board. The motion was made by Dr. Kenneth Crabtree to accept change order number 7 in the amount of \$72,778.97. The motion was seconded by Mike Emberton. The motion carried. The motion was made Dr. Kenneth Crabtree to accept and move forward with change order number 8 in the amount of \$691,551.00. The motion was seconded by Johnny Miller. The motion carried.
(All voted aye.) (See attached.)

Office Clerk Miranda Williams presented the Board with a breakdown of costs and annual expenses of the phone, online and credit card service from Nextcheck and United Systems and Software. This would include opening a new checking account at South Central Bank which will have the same signers as all other accounts; Treasurer John Thompson, General Manager Richard Ross and Office Manager Jana Dubree. The motion was made John Thompson to accept the purchase of equipment and software with Nextcheck and United Systems and Software and include opening of a new checking account at South Central Bank. The motion was seconded by Mike Emberton. The motion carried.
(All voted aye.)(See attached.)

Chairman Williams read a resignation letter from employee Ryan Gearlds, stating his last day would be April 13, 2018. The Board agreed to accept Mr. Gearld's resignation.
(See attached.)

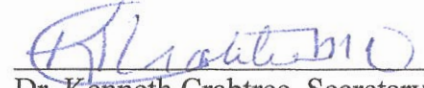
The Board discussed hiring someone in maintenance. The motion was made by Dr. Kenneth Crabtree to advertise in the local newspaper to begin accepting resumes for maintenance position. The motion was seconded by John Thompson. The motion carried.
(All voted aye.)

Office Clerk Miranda Williams reported to the Board concerning a customer complaint about their high usage (Margie Gordon Farm). The meter reading has been checked several times and the readings have been correct, the meter has been removed and tested with good results. The motion was made by Mike Emberton to go by the rules and regulation of the District's tariff. Per the policy the account qualifies for a customer leak adjustment therefore if the customer requests an adjustment one will be made. The motion was seconded by Johnny Miller. The motion carried.
(All voted aye.)

The motion was made by Johnny Miller and seconded by Dr. Kenneth Crabtree to adjourn. The motion passed. The next meeting will be Monday, May 14, 2018 at 7:00 p.m. (All voted aye.)




Jana Dubree, Office Manager



Dr. Kenneth Crabtree, Secretary

I hereby certify that the foregoing Minutes were duly approved by the Board of Commissioners of the Monroe County Water District at a meeting held on the date shown below:

Monroe County Water District

By: 

Mark Williams, Chairman

5-14-2018

Date Approved

EXHIBIT 14



KENTUCKY INFRASTRUCTURE AUTHORITY

Matthew G. Bevin
Governor

Capital Center Complex
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
(502) 573-0260
(502) 573-0157 (fax)
kia.ky.gov

Donna McNeil
Executive Director

May 17, 2018

Monroe County Water District
Attn: Mark Williams
205 Capp Harlan Road
Tompkinsville, KY 42167

RE: DWSRF Increase Request, F15-002

Dear Chairman Williams:

Thank you for your recent request on May 7, 2018, to increase your Drinking Water State Revolving Fund (DWSRF) loan from \$15,564,332 to \$15,675,679 to better serve the customers of the Monroe County Water District. According to your correspondence, the increase of \$111,347 is needed to provide treatment redundancy at the new water treatment facility. This request is approved, contingent upon a financial analysis that will be conducted by one of our loan analyst (you may be contacted for additional information). This loan increase is less than 10% of the original KIA loan and does not require KIA board approval. Upon approval of the credit analysis, you will receive a Conditional Commitment Letter for the loan increase and a Supplemental Assistance Agreement will be initiated.

If you have any questions, please don't hesitate to contact Amanda Yeary at 502.892.3486 or amanda.yeary@ky.gov.

Respectfully,

A handwritten signature in blue ink that reads "Donna McNeil".

Executive Director
Kentucky Infrastructure Authority

EXHIBIT 15

**STATEMENT OF ANNUAL COST OF OPERATION
OF THE PROPOSED FACILITIES**

Treatment - Electrical	\$54,685
Pumping - Electrical	\$16,976
Building & Grounds Maintenance	\$3,130
Treatment - Chemicals	\$78,834
Salaries - Treatment Plant	\$110,018
Water Plant Supplies	\$2,634
Maintenance - Water Plant	\$6,649
Lab Testing	\$6,807
Employee Benefits	\$48,408
Total Production Costs:	<u>\$328,141</u>

EXHIBIT 16

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF MONROE COUNTY)	
WATER DISTRICT TO MODIFY THE ORDER)	
OF MARCH 18, 2016 IN CASE NO. 2015-00315)	
TO REFLECT REVISIONS IN THE DESIGN)	CASE NO. 2018-00148
OF THE APPROVED WATER TREATMENT)	
FACILITY AND IN THE ASSISTANCE)	
AGREEMENT WITH THE KENTUCKY)	
INFRASTRUCTURE AUTHORITY)	

DIRECT TESTIMONY OF
ROBERT D. STIGALL
STIGALL ENGINEERING ASSOCIATES, INC.

Filed: May 22, 2018

1 **Q. Please state your name, position, and business address.**

2 A. My name is Robert D. Stigall. I am President of Stigall Engineering Associates, Inc.,
3 a consulting engineering firm. My business address is 4117 Hillsboro Pike,
4 Suite 206, Nashville, Tennessee.

5 **Q. Briefly describe your educational and professional background.**

6 A. I hold a bachelor's degree in civil engineering from Vanderbilt University. I am
7 licensed as a professional engineer in the states of Tennessee and Kentucky. I am an
8 active member of the Tennessee Association of Utility Districts, Tennessee Society of
9 Professional Engineers, Tennessee Gas Association and the National Society of
10 Professional Engineers. A professional resume, which contains a more complete list
11 of my memberships, my work experience, and my professional recognitions, is
12 attached to my testimony as Exhibit RDS-1.

13 **Q. Are you currently engaged by Monroe County Water District (“Monroe
14 District”)?**

15 A. Yes. My consulting firm has performed engineering services for Monroe District
16 since before 2007. Monroe District's Board of Commissioners retained my firm to
17 design and oversee the construction of its water treatment plant and related facilities
18 for which Monroe District obtained a certificate of public convenience and necessity
19 in PSC Case No. 2015-00315.¹

¹ *The Application of Monroe County Water District For Authorization To Enter An Assistance Agreement With the Kentucky Infrastructure Authority and For a Certificate of Public Convenience To Construct a Water Treatment Facility, Elevated Storage Tank, and Water Transmission and Distribution Mains, Case No. 2015-00315 (Ky. PSC filed Feb. 18, 2016).*

1 **Q. Have you testified before the Public Service Commission previously?**

2 A. Yes. I filed written testimony in PSC Case No. 2015-00315 in support of Monroe
3 District’s application for a certificate of public convenience and necessity to construct
4 its water treatment plant and related facilities and in PSC Case No. 2016-00292² in
5 support of Crittenden-Livingston Water District’s application for a certificate of
6 public convenience and necessity to construct a water storage facility. I testified in
7 person before the Public Service Commission in PSC Case No. 2017-00070,³ which
8 involved Monroe District’s request for a rate adjustment.

9 **Q. What is the purpose of your testimony in this proceeding?**

10 A. My testimony addresses the proposed amendment to Monroe District’s water
11 treatment facility, more specifically, the addition of a one-million gallon flocculation
12 and sedimentation basin to provide additional redundancy in the water treatment
13 process and to meet the requirements of the Kentucky Division of Water (“KDOW”).
14 I also discuss the events that led Monroe District to request this amendment.

15 **Q. Describe the facilities for which Monroe District was granted a certificate of
16 public convenience and necessity in PSC Case No. 2015-00315.**

17 A. The facilities approved in Case No. 2015-00315 were a 2.0 million gallon per day
18 (“MGD”) water treatment facility; approximately 24,715 linear feet of 16-inch ductile
19 iron, and 29,475 linear feet of 10-inch polyvinylchloride (“PVC”) water main; and a

² *Electronic Application of Crittenden-Livingston County Water District For Authorization To Enter An Assistance Agreement With the Kentucky Infrastructure Authority and For A Certificate of Public Convenience and Necessity To Construct a Water Storage Facility*, Case No. 2016-00292 (Ky. PSC filed Aug. 19, 2016).

³ *Electronic Application of Monroe County Water District For Rate Adjustment Pursuant To 807 KAR 5:076*, Case No. 2017-00070 (Ky. PSC filed Mar. 16, 2016).

1 600,000 gallon elevated-water storage tank. These facilities were constructed as three
2 contracts.

3 “Contract I: Water Treatment Plant” involved the construction of a water
4 treatment facility. This facility’s capacity is 2.0 MGD, but can be expanded. It has
5 Actiflo pre-treatment; two dual media rapid rate gravity filters with a maximum
6 filtration rate of 1306 gallons per minute (“gpm”) per filter; a 250,000 gallon
7 clearwell; two high service pumps capable of pumping 1,400 gpm; two raw water
8 pumps with a pumping capacity of 1,400 gallons; a sludge filter press system; and
9 other various appurtenances. The water treatment facility’s raw water intake is
10 located on the Cumberland River. A 12-inch PVC water line runs approximately
11 7,500 feet along Cloyd Williams Road in Monroe County from the raw intake to the
12 water treatment facility, which is located one mile from the Cumberland River and
13 above the 100 year flood elevation.

14 “Contract IIB: Water Lines” involved the construction of approximately
15 24,715 linear feet of 16-inch ductile iron water main and 29,475 linear feet of 10-inch
16 PVC water main and modifications to the County House Road Pumping Station.
17 Monroe District constructed 21,600 feet of 16-inch ductile iron water main running
18 from the water treatment plant site to an elevated water storage tank and running
19 parallel to Cloyd Williams Road. An additional 3,000 feet of 16-inch ductile iron
20 water main was constructed from the storage tank site to the intersection of Cloyd
21 Williams Road, Capp Harlan Road and Kentucky Highway 163. From this
22 intersection, 7,000 feet of 10-inch PVC water main was constructed along Capp
23 Harlan Road to Monroe District’s Persimmon Pumping Station. An additional 22,400

1 feet of 10-inch PVC water main was constructed from the intersection to Monroe
2 District's County House Road Storage Tank. This segment runs along Kentucky
3 Highway 163, then through approximately 6,000 feet of private property along
4 acquired easements, and then along Kentucky Highway 1366.

5 "Contract IIIB: Elevated Storage Facility" involved the construction of the
6 600,000 gallons elevated water storage tank to which I referred in my description of
7 Contract IIB.

8 **Q. Did you prepare or supervise the preparation of the plans and specifications for**
9 **these Facilities.**

10 A. Yes, I did. A copy of the plans and specifications for these facilities was attached to
11 Monroe District's Application in PSC Case No. 2015-00315.

12 **Q. Did the KDOW approve the plans for these facilities?**

13 A. Yes. A copy of the letters in which the KDOW stated its approval is set forth at
14 Exhibit 14, Exhibit 15 and Exhibit 16 of Monroe District's Application in PSC Case
15 No. 2015-00315.

16 **Q. Did Monroe District receive prior to the start of construction of these facilities**
17 **all required KDOW permits?**

18 A. Yes. Prior to the start of construction, Monroe District applied for and obtained from
19 the KDOW all required KDOW permits for the facilities. These permits can be found
20 at Exhibit 17, Exhibit 18 and Exhibit 19 of its Application in PSC Case No. 2015-
21 00315.

1 **Q. Did Monroe District also obtain all required federal and state regulatory**
2 **approvals necessary to undertake the construction obtained prior to the start of**
3 **construction?**

4 A. Yes. Copies of these approvals were filed with the Public Service Commission in
5 PSC Case No. 2015-00315.

6 **Q. When did construction on these facilities commence?**

7 A. Construction began on or about July 1, 2016.

8 **Q. When was construction of these facilities substantially completed?**

9 A. On March 5, 2018, Judy Construction Co., the contractor for the facilities, advised
10 Monroe District that construction of the facilities was substantially completed.

11 **Q. Is Monroe District now proposing changes to the water treatment facility?**

12 A. Yes. Monroe District is proposing to construct a one-million gallon flocculation and
13 sedimentation basin on site of the completed water treatment plant facility.

14 **Q. Why is Monroe District proposing this change?**

15 A. The KDOW recently required, as a condition to authorizing the operation of the water
16 treatment facility, that Monroe District provide additional redundancy in the facility's
17 water treatment process.

18 **Q. When did KDOW notify Monroe District of this condition?**

19 A. During the course of a visit to the water treatment facility on February 6, 2018,
20 representatives of KDOW's Columbia Office first questioned whether the water
21 treatment facility had adequate redundancy. A subsequent meeting between
22 representatives of KDOW and Monroe District was held on February 20, 2018, at
23 which KDOW representatives stated concerns that the water treatment facility lacked

1 redundancy in the initial stages of its treatment process and indicated that Monroe
2 District would require redundant treatment facilities to comply with KDOW
3 regulations.

4 At a meeting between Monroe District representatives and KDOW officials on
5 March 29, 2018, KDOW officials advised Monroe District that the water treatment
6 facility did not comply with redundancy requirements contained in KDOW
7 regulations and that Monroe District must take action to correct this non-compliance
8 before the facility could begin operation. They stated that operation of the water
9 treatment facility without such corrective action would violate KDOW regulations
10 and would subject Monroe District to enforcement proceedings. The KDOW
11 confirmed this position by letter of April 4, 2018, a copy of which is attached as
12 Exhibit 2 to the Application in this proceeding.

13 **Q. What regulation is at issue?**

14 A. 401 KAR 8:100. Section 2(1)(b) of this regulation provides that “[f]inal plans and
15 specifications for the construction or modification of a water treatment plant or a
16 distribution facility shall be consistent with . . . General Design Criteria for Surface
17 and Ground Water Supplies, April 2010.” The General Design Criteria requires that a
18 treatment facility have a minimum of two flocculation and sedimentation basins and
19 that the plant be capable of meeting at least 50 percent of its rated design capacity if
20 one basin is out of service.

21 **Q. Does Monroe District’s water treatment plant as presently constructed comply**
22 **with this regulation?**

1 A. No. Monroe District's water treatment plant presently has only one train for
2 flocculation and sedimentation.

3 **Q. What function does a flocculation and sedimentation train serve?**

4 A. The flocculation and sedimentation train removes solids from the raw water. Solids
5 are removed by sedimentation (settling) followed by filtration. Small particles,
6 however, present a problem. They settle too slowly to be efficiently removed by
7 sedimentation. Because of their size, they could pass through filter media. To assist
8 the sedimentation process, chemicals are added to the raw water at the start of the
9 treatment process to allow smaller particles to clump together or coagulate. After
10 these chemicals are added, the water flows into the flocculation basin – a tank with
11 paddles that provide slow mixing and bring the small particles together to form larger
12 particles called flocs. The water then flows into the sedimentation basin. The water
13 stands for a designated period of time to allow for gravity to cause the flocs to settle
14 to the bottom of the basin. Most, but not all particles, are removed in the
15 sedimentation stage. The water moves on to the filtration step where it passes
16 through filter media to remove the finer particles remaining in the water.

17 **Q. Why did Monroe District construct its water treatment plan with only one train
18 for flocculation and sedimentation?**

19 A. The original design of the water treatment plant provided for two trains for
20 flocculation and sedimentation. One train was eliminated when the treatment plant
21 was downsized to serve only Monroe District. (The water treatment plant was
22 originally intended to serve the needs of Monroe District and Tompkinsville if
23 Tompkinsville elected to receive water from the facility. After initially indicating an

1 interest in a regional water treatment facility, Tompkinsville elected not to participate
2 in the project.) Monroe District reasoned that its water purchase agreement with the
3 City of Tompkinsville, which permitted the purchase of 30 million gallons of water
4 monthly and which would continue in effect until 2034, effectively substituted for the
5 redundancy of a second train. Monroe District's distribution system has several
6 interconnections with Tompkinsville. If a problem occurred with the water treatment
7 plant's flocculation and sedimentation train, Monroe District could resume
8 purchasing water from Tompkinsville until the problem was remedied.
9 Tompkinsville presently has sufficient capacity to supply Monroe District's average
10 day demand.

11 This approach appeared to the most cost effective. Monroe District assumed
12 that the KDOW concurred with this position when it approved plans and
13 specifications providing for only one flocculation and sedimentation train.

14 **Q. After KDOW informed Monroe District of its position regarding the lack of**
15 **redundancy, what actions did Monroe District take?**

16 A. To address KDOW's concerns, Monroe District proposed to construct a one-million
17 gallon flocculation and sedimentation basin to supplement the water treatment plant's
18 Actiflo pre-treatment process. KDOW officials indicated that the Energy and
19 Environment Cabinet would accept the proposal and permit Monroe District's water
20 treatment plant to begin operations. On April 20, 2018, Monroe District submitted
21 proposed plans and specifications for one-million gallon flocculation and
22 sedimentation basin to KDOW for approval. At KDOW's request and
23 notwithstanding its existing water purchase agreement with Tompkinsville, Monroe

1 District on April 28, 2018 executed a mutual aid agreement with Tompkinsville that
2 requires each water utility to serve as a reliable source of water to the other should
3 one experience a temporary loss of safe drinking water as a result of an emergency.
4 A copy of this agreement is found at Exhibit 3 of the Application in this proceeding.

5 On May 3, 2018, the Energy and Environment Cabinet and Monroe District
6 entered into an Agreed Order that permits Monroe District to begin operating its
7 water treatment plant. Under the terms of this Order, Monroe District must develop
8 and submit to the Energy and Environment Cabinet within 30 days a compliance plan
9 to correct its water treatment plant's non-compliance with 401 KAR 8:100 and to
10 remedy the non-compliance no later than December 31, 2018. Until the non-
11 compliance is remedied, Monroe District must operate under the terms of its mutual
12 aid agreement with Tompkinsville.

13 On May 11, 2018, Monroe District submitted its compliance plan to the the
14 Energy and Environment Cabinet. A copy of this plan is found at Exhibit 5 of the
15 Application in this proceeding. As of this date, the compliance plan is still under
16 review. When the Kentucky Division of Enforcement takes final action on the
17 compliance plan, Monroe District will immediately notify the Public Service
18 Commission.

19 **Q. Has Monroe District's water treatment plant begun operations?**

20 A. Yes. It began furnishing water to Monroe District's water distribution system on
21 May 3, 2018. As of May 11, 2018, all water furnished to Monroe District's
22 customers was treated at Monroe District's water treatment plant.

1 **Q. Has Monroe District prepared plans and specifications for the proposed one-**
2 **million gallon flocculation and sedimentation basin?**

3 A. Yes. The plans and specifications for the proposed one-million gallon flocculation
4 and sedimentation basin have been completed. A copy of the plans and specifications
5 are found at Exhibit 6 and Exhibit 7 of the Application in this proceeding.

6 **Q. Has Monroe District submitted these plans and specifications to the KDOW?**

7 A. Yes. On April 9, 2018 Monroe District's Board of Commissioners authorized the
8 submission of the plans and specifications to the KDOW. A copy of the minutes of
9 the Board of Commissioners' Meeting of April 9, 2018 is found at Exhibit 13 of the
10 Application in this proceeding. On April 20, 2018, Monroe District submitted them
11 to KDOW for its review and approval. As of this date no decision on the plans has
12 been issued. Monroe District will provide the Public Service Commission with a
13 copy of this decision as soon as it is available.

14 **Q. What other actions has Monroe District taken regarding "Contract I: Water**
15 **Treatment Plant"?**

16 A. On April 9, 2018, Monroe District's Board of Commissioner's authorized Change
17 Order No. 8 to Contract I, which provides for the construction of proposed one-
18 million gallon flocculation and sedimentation basin. On April 12, 2018, Monroe
19 District executed Change Order No. 8 with Judy Construction. A copy of Change
20 Order No. 8 is set forth at Exhibit 12 of the Application in this proceeding. While
21 Monroe District has executed the Order, it has instructed Judy Construction not to
22 commence any work on the proposed flocculation and sedimentation basin until the

1 necessary approvals from the KDOW and the Public Service Commission have been
2 obtained.

3 **Q. Are any other regulatory approvals besides the KDOW and the Public Service**
4 **Commission required?**

5 A. No.

6 **Q. Briefly describe the proposed flocculation and sedimentation basin?**

7 A. Unlike the present flocculation and sedimentation train, which uses the Actiflo
8 treatment process,⁴ the proposed flocculation and sedimentation basin will employ a
9 more conventional treatment process. The flocculation basin has a volume of 21,392
10 gallons. The sedimentation basin will have a volume of 124,467 gallons. Expected
11 detention time for the flocculation basin is 30.6 minutes. Detention time for water in
12 the sedimentation basin is 2.96 hours. The proposed flocculation and sedimentation
13 train can treat approximately one million gallons of water daily.

14 **Q. Where will the proposed flocculation and sedimentation basin be located?**

15 A. Unlike the present flocculation and sedimentation train, the proposed flocculation and
16 sedimentation train will not be located inside the water treatment plant building, but
17 will be located outside in an area adjacent to that structure. The location of proposed

⁴ The ACTIFLO Process is a high performance compact clarification system using microsand enhanced flocculation and settling. A coagulant is added to the raw water in the influent pipe and enters the pre-coagulation tank, followed by the coagulation tank, for micro-flocculation. The coagulated water then enters a third tank called the maturation tank, where the microsand and flocculant aid polymer is added. The microsand provides a large contact area for floc attachment and acts as a ballast, thereby accelerating the settling of the flocs. The flocculant aid polymer binds the destabilized suspended solids to the microsand particles by forming polymer bridges. In the maturation tank, the high efficiency mixing zone created by the use of a draft tube allows the microsand/sludge flocs to agglomerate and grow into high-density flocs known as microsand ballasted flocs. In the fourth tank, the settling tank, the microsand ballasted flocs settle quickly to the bottom of the tank. The efficiency of settling is further increased by the use of the lamella tubes. The sludge/microsand mixture is collected at the bottom of the settling tank, below the lamella tubes. This sludge/microsand mixture is then continuously pumped to hydrocyclones where the sludge is separated from the microsand by the centrifugal forces generated in the hydrocyclone. The recovered microsand is continuously recycled to the maturation tank, and the separated sludge is continuously discharged.

1 flocculation and sedimentation train is shown in the site plan that is found at
2 Exhibit 6, Sheet 2 of the Application for this proceeding. After passing through the
3 train, the water will be piped into the water treatment plant building and passed
4 through filter media. A schematic drawing illustrating the water treatment process
5 after the addition of the proposed flocculation and sedimentation train is attached to
6 my testimony as Exhibit RDS-2.

7 **Q. What benefits, if any, result from the addition of the proposed flocculation and**
8 **sedimentation train?**

9 A. It adds additional redundancy to the treatment process and thus increases service
10 reliability. If problems occur with the primary flocculation and sedimentation train or
11 if routine maintenance must be performed on the primary flocculation and
12 sedimentation train, Monroe District can continue to produce water without
13 undertaking emergency measures or purchasing water from other water suppliers.

14 **Q. What is the estimated time necessary to construct the proposed flocculation and**
15 **sedimentation basin?**

16 A. The Change Order specifies 240 days. If the necessary regulatory approvals can be
17 obtained by June 1, however, the construction period can be reduced to 180 days or
18 less. A shorter period is needed because the contractor's equipment and work crew
19 will still be onsite at the water treatment plant facility.

20 **Q. What is the estimated cost of the proposed flocculation and sedimentation basin?**

21 A. The current estimated cost is \$691,551.

22 **Q. How will the addition of the proposed flocculation and sedimentation basin**
23 **affect the overall cost of project?**

1 A. In its application in PSC Case No. 2015-00315, Monroe District estimated the total
2 cost of the project to be \$15,962,694. It presently estimates that the total project cost,
3 with the addition of the proposed flocculation and sedimentation basin, will be
4 \$16,074,041. This revised estimate is approximately 0.7 percent greater than the
5 original estimate.

6 **Q. Will the addition of the proposed flocculation and sedimentation basin affect
7 how the total project cost is financed?**

8 A. Yes. Monroe District originally proposed to finance the construction of the total
9 project with a loan of \$15,564,032 from the KIA's Fund F Infrastructure Revolving
10 Loan Program and with appropriated funds from the Kentucky General Assembly of
11 \$320,096 and \$78,266.⁵ Given the additional cost related to the addition of the
12 proposed flocculation and sedimentation basin, Monroe District now intends to
13 borrow \$15,675,679 from KIA's Fund F Infrastructure Revolving Loan Program. It
14 has requested that the KIA increase its loan by approximately \$111,347 to address the
15 additional costs. On May 17, 2018, the KIA approved Monroe District's request. A
16 copy of the letter in which the KIA indicated its approval is found at Exhibit 14 of the
17 Application in this proceeding.

18 **Q. Did you prepare a detailed estimate of the property that Monroe District will
19 acquire as a result of the addition of the proposed flocculation and
20 sedimentation basin?**

⁵ See 2014 Ky. Acts 667-668 (Ky. Legislative Research Commission Electronic Version).

1 A. Yes. This estimate, arranged according to the Uniform System of Accounts for Class
2 A/B Water Districts and Associations, is attached to Monroe District's Application in
3 this proceeding as Exhibit 19.

4 **Q. Did you previously determine the cost of operating the project facilities upon**
5 **their completion?**

6 A. Yes, I did. Based upon my calculations, I originally estimated the approximate
7 annual cost of operation to be \$328,141. A schedule of these costs is set forth in
8 Exhibit 26 of Monroe District's Application in Case No. 2015-00315.

9 **Q. Will the construction of the addition of the proposed flocculation and**
10 **sedimentation basin affect the original estimate of operating costs?**

11 A. No. I do not anticipate any change in operating costs from my original estimate. The
12 proposed flocculation and sedimentation basin is not expected to operate for any
13 significant period. When it is in operation, the original flocculation and
14 sedimentation train will not be in operation.

15 I have revised my estimate of savings from the elimination of purchased water
16 expense. In my testimony in Case No. 2015-00315, I testified that my estimate of
17 operating expenses was based upon the an assumed annual water production of
18 273,750,000 gallons. I further testified that if Monroe District purchased, rather than
19 produced, this volume of water, its annual purchased water expense would be
20 \$615,938. Since my testimony in that proceeding, Tompkinsville has increased its
21 wholesale rate to \$3.00 per 1,000 gallons. At Tompkinsville's current wholesale rate,
22 Monroe District would incur annual purchased water expense of \$821,250, which is
23 \$493,109 greater than Monroe District's estimated annual cost to produce the water.

1 **Q. What is your recommendation concerning the addition of the proposed**
2 **flocculation and sedimentation basin?**

3 A. Construction of the proposed flocculation and sedimentation basin is necessary to
4 provide the redundancy that KDOW regulations and the agreed order between the
5 EEC and Monroe District require. It represents a relatively small portion of the total
6 project cost and will ensure greater system reliability. I recommend that the Public
7 Service Commission approve the proposed revisions to the project and project plan of
8 financing and make the requested modifications to the Public Service Commission's
9 Order of March 18, 2016 in PSC Case No. 2015-00315.

10 **Q. Do you have any additional recommendations to make?**

11 A. Yes. I would encourage the Public Service Commission to act on Monroe District's
12 current application no later than June 1, 2018, and waive any filing requirements that
13 might delay acceptance of the Application for filing and the start of the review
14 process. Any delay in the start of construction beyond June 1 will add to the risk of
15 significant increases in the cost of the proposed flocculation and sedimentation basin.
16 If the contractor does not receive instructions to begin construction by that date, it
17 may redeploy its construction crews and equipment to other projects that are ready to
18 immediately proceed. This redeployment would delay the start of the project and, if
19 new construction crews must be assembled, likely increase the cost of construction.

20 Moreover, there is currently a great deal of uncertainty over the cost of
21 materials. Possible tariffs on foreign steel and aluminum products would likely
22 increase the cost of materials necessary for the construction of the proposed

1 flocculation and sedimentation basin. An earlier decision will enable the contractor
2 to lock in lower prices should tariffs be imposed.

3 **Q. Does this conclude your testimony?**

4 **A. Yes.**

VERIFICATION

STATE OF TENNESSEE)
) SS:
COUNTY OF DAVIDSON)

The undersigned, **Robert D. Stigall**, being duly sworn, deposes and says that he has personal knowledge of the matters set forth in the foregoing testimony and that the answers contained therein are true and correct to the best of his information, knowledge and belief.

Robert D. Stigall
ROBERT D. STIGALL

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 22 day of May, 2018.

My Commission Expires:
03-08-2021

[Signature]
Notary Public



EXHIBITS TO THE DIRECT TESTIMONY OF
ROBERT D. STIGALL

Exhibit

Document

RDS-1

Professional Resume of Robert D. Stigall

RDS-2

Water Treatment Plan Flow Schematic

EXHIBIT RDS-1

ROBERT D. STIGALL

4117 Hillsboro Pike, Suite 206 · Nashville, Tennessee 37215 · Telephone: 615.460.7515

Personal Resumé

Education:

Bachelor Degree Civil Engineering
Vanderbilt University - 1981

Professional Registrations:

- Tennessee Registration No. 18,048
- Kentucky Registration No. 15,006

Active Member of the following Associations:

- Tennessee Association of Utility Districts
- Tennessee Society of Professional Engineers
- National Society of Professional Engineers
- Tennessee Gas Association

Professional Recognition:

Started own Consulting Engineering firm and currently works with over 25 Municipalities, Utility Districts and Water Districts.

Nashville Chapter Director of National "MATHCOUNTS" program from 1988 – 1993.

Received the Nashville Chapter of the Tennessee Society of Professional Engineers *Young Engineer of the Year* award (1993)

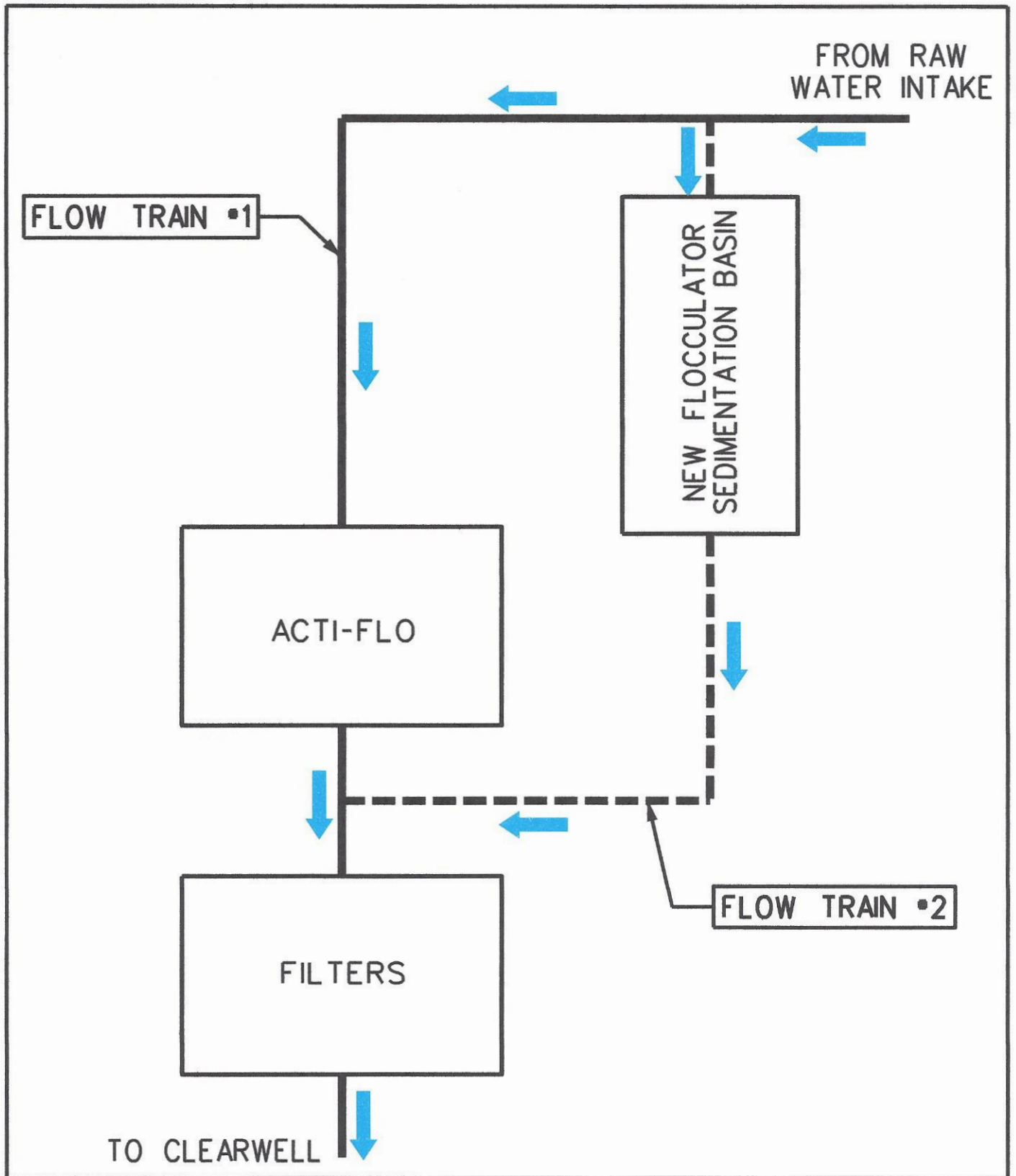
State Director of National "MATHCOUNTS" program from 1994 – 1997.

Served on the Tennessee Gas Association Distribution Committee (1994)

President of the Nashville Chapter of the Tennessee Society of Professional Engineers (1997-1998)

Served as "Expert Witness" in Texas Eastern Pipeline versus Wright & Lopez lawsuit.

EXHIBIT RDS-2



WTP FLOW SCHEMATIC

DATE
APRIL 2018



**STIGALL
ENGINEERING
ASSOCIATES, INC.**

4117 HILLSBORO PIKE - SUITE 206
NASHVILLE, TENNESSEE 37215

TELEPHONE : (615) 460-7515
FACSIMILE : (615) 460-7517

2007 WATER SYSTEM IMPROVEMENTS
FOR
MONROE COUNTY WATER DISTRICT
CONTRACT I - PHASE IX
WATER TREATMENT PLANT

SCALE
NONE

DRAWING NO.
FIG. I

EXHIBIT 17



KENTUCKY INFRASTRUCTURE AUTHORITY

1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
Phone (502) 573-0260
Fax (502) 573-0157
<http://kia.ky.gov>

Steven L. Beshear
Governor

December 7, 2015

Richard O. Ross, General Manager
Monroe County Water District
205 Capp Harlan Road
Tompkinsville, KY 42167

KENTUCKY INFRASTRUCTURE AUTHORITY FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND CONDITIONAL COMMITMENT LETTER (F15-002 INCREASE)

Dear Mr. Ross:

The Kentucky Infrastructure Authority ("the Authority") commends your efforts to improve public service facilities in your community. Your request to the Authority for a \$3,550,694 increase to your existing loan was approved on December 3, 2015, for the New Regional Water Treatment Plant & System Improvements project, subject to the conditions stated below. The total cost of the project shall not exceed \$15,962,694 of which the Authority loan shall provide \$15,564,332 of the funding. Other anticipated funding for the project is reflected in Attachment A. The final loan amount will be equal to the Authority's portion of estimated project cost applied to the actual project cost. Attachment A incorporated herein by reference fully describes the project.

An Assistance Agreement will be executed between the Authority and the Monroe County Water District upon satisfactory performance of the conditions set forth in this letter. You must meet the conditions set forth in this letter and enter into an Assistance Agreement by July 6, 2016. A one-time extension of up to six months may be granted for applicants that experience extenuating circumstances. Funds will be available for disbursement only after execution of the Assistance Agreement.

The Assistance Agreement and this commitment shall be subject, but not limited to, the following terms:

1. The Authority project loan shall not exceed \$15,564,332.
2. The total loan shall contain principal forgiveness in the amount of 30

Mr. Ross
December 7, 2015
Page 2

percent, but not to exceed \$2,904,091. Amortized loan and forgiveness amounts will be based on actual project costs drawn from the Authority. The increase amount of \$3,550,694 did not include any additional principal forgiveness.

3. The loan shall bear interest at the rate of 0.75 percent per annum commencing with the first draw of funds.
4. Interest shall be payable on the unforgiven amount of actual funds received. The first payment shall be due on June 1, or December 1, immediately succeeding the date of the initial draw of funds, provided that if such June 1, or December 1, shall be less than three months since the date of the initial draw of funds, then the first interest payment date shall be the June 1, or December 1, which is at least six months from the date of the initial draw of funds. Interest payments will be due each six months thereafter until the loan is repaid.
5. Full principal payments will commence on the appropriate June 1, or December 1, within twelve months from initiation of operation. Full payments will be due each six months thereafter until the loan is repaid.
6. The loan shall be repaid over a period not to exceed 30 years from the date of initiation of operation for the project.
7. A loan servicing fee of 0.25% of the annual outstanding loan balance shall be payable to the Authority as a part of each interest payment.
8. Loan funds will only be disbursed after execution of the Assistance Agreement as project costs are incurred.
9. The Authority loan funds must be expended within six months of the official date of initiation of operation.
10. Fund "F" loan funds may be considered to be federal funds. OMB Circular A-133, "Audits of States, Local Governments and Non-Profit Organizations, requires that all recipients and subrecipients **expending \$500,000 or more in a year in federal awards must have a single or program-specific audit conducted for that year** in accordance with the Circular. If the federal amount expended plus all other federal funds expended exceeds the threshold, you are required to arrange for an A-133 audit to be performed by an independent, licensed CPA, or in special cases, the Auditor of Public Accounts of the Commonwealth of Kentucky. Please note that the guidance for single audit requirements changed for

Mr. Ross
December 7, 2015
Page 3

calendar or fiscal years beginning after December 26, 2014. Please consult with your independent auditor as soon as possible to understand how the changes will affect you.

11. The Authority requires an annual financial audit be provided for the life of the loan.
12. The final Assistance Agreement must be approved by ordinance or resolution, as applicable, of the city council or appropriate governing board.

The following is a list of the standard conditions to be satisfied prior to execution of the Assistance Agreement or incorporated in the Assistance Agreement. Any required documentation must be submitted to the party designated.

1. The Authority to Award (bid) package must be submitted to the Division of Water for approval within 14 days of bid opening.
2. The Assistance Agreement must be executed within six (6) months from bid opening.
3. Documentation of final funding commitments from all parties other than the Authority as reflected in the credit analysis shall be provided prior to preparation of the Assistance Agreement and disbursement of the loan monies. Rejections of any anticipated project funding shall be immediately reported and may cause this loan to be subject to further consideration.
4. The loan must undergo review by the Capital Projects and Bond Oversight Committee of the Kentucky Legislature prior to the State's execution of the Assistance Agreement. The committee meets monthly on the third Tuesday. Any special conditions listed in Attachment A must be satisfied before the project is presented before the Committee.
5. Any required adjustment in utility service rates shall be adopted by ordinance, municipal order or resolution by the appropriate governing body of the Borrower. Public hearings as required by law shall be held prior to the adoption of the service rate ordinance, order, or resolution. Any required approvals by the Kentucky Public Service Commission shall be obtained.
6. The Borrower must complete and return the attached "Authorization for Electronic Deposit of Vendor Payment" form to the Authority.

Mr. Ross
December 7, 2015
Page 4

7. Documentation of Clearinghouse Endorsement and Clearinghouse Comments.
8. Prior to project bid, an environmental review shall be conducted by the Division of Water for all construction projects receiving DWSRF funds.
9. Technical plans and specifications and a complete DWSRF specifications checklist shall be approved by the Division of Water prior to project bid.
10. All easements or purchases of land shall be completed prior to commencement of construction. Clear Site Certification of all land or easement acquisitions shall be provided to the Division of Water. DOW representatives shall be notified for attendance of the pre-construction conference.
11. Project changes or additions deviating from the original scope of work described in the Project Profile may require a new or amended environmental review and change order review before they can be included in the DWSRF loan project.
12. Applicant must provide certification from their legal counsel stating that they have prepared construction specifications in accordance with all applicable state or federal wage rate laws, and that the procurement procedures, including those for construction, land, equipment and professional services that are a part of the project, are in compliance with applicable federal, state and local procurement laws.
13. Implement the Kentucky Uniform System of Accounting (KUSoA), or an alternative approved by the Authority and assure that rates and charges for services are based upon the cost of providing such service.
14. The Borrower shall comply with all Davis Bacon related monitoring and reporting and require all contractors to pay wages pursuant to applicable prevailing wage rates (federal or state) for all work relating to the subject Project.
15. The project shall comply with the reporting requirements of the Transparency Act, and shall complete the attached Transparency Act Reporting Information Form and provide to the Authority no later than 30 days after the KIA Board approval date of your loan.
16. If the project has a "Green Reserve" component, the Borrower must submit a Business Case, if required.

Mr. Ross
December 7, 2015
Page 5

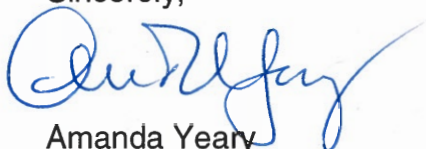
17. Based on the final "as-bid" project budget, the Borrower must provide satisfactory proof, based on then existing conditions, that the revenue projections in the attached descriptions are still obtainable and that the projections of operating expenses have not materially changed. The "as bid" project budget shall be reviewed and approved by the consulting engineer.

18. The project shall comply with American Iron and Steel requirements of The Consolidated Appropriations Act of 2014 (H.R. 3547), which became effective January 17, 2014, unless engineering plans and specifications were approved by the Division of Water prior to the effective date.

Any special conditions stated in Attachment A must be resolved.

Please inform the Authority of any changes in your financing plan as soon as possible. We wish you every success for this project which will benefit both your community and the Commonwealth as a whole.

Sincerely,



Amanda Yearly
Kentucky Infrastructure Authority

Attachments

cc: Jana Dubree, Monroe County Water District
Robert Stigall, P.E., Stigall Engineering Associates, Inc
Division of Water
Dirk Bedarff, Peck, Shaffer & Williams LLP
State Local Debt Office, DLG
Borrower File - Monroe County Water District - F15-002

Please sign and return a copy of this letter indicating your acceptance of this commitment and its terms. Also attach the completed "Authorization for Electronic Deposit of Vendor Payment" Form.

Accepted

Date

ATTACHMENT A

**Monroe County Water District
F15-002**

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND F, FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND		Reviewer Date KIA Loan Number WRIS Number	Brandi Norton December 3, 2015 F15-002 Increase WX21171045	
BORROWER	MONROE COUNTY WATER DISTRICT MONROE COUNTY			
BRIEF DESCRIPTION				
<p>The Monroe County Water District is requesting an increase of \$3,550,694 to a previously approved \$12,013,638 loan for the Regional Water Treatment Plant and System Improvements Project. The project was presented in July 2015 and has since been competitively bid in three contracts. The increase will cover the overage required from the lowest bidder to complete the project. The original project description is below:</p> <p>This project involves the construction of a new water intake, a 600,000 water storage tank, one pump station, transmission lines and a two million gallon per day water treatment plant. The District currently purchases potable water from the City of Tompkinsville, which has frequently experienced water shortages, particularly during drought periods. The City's water source is Mill Creek Lake, which has limited capacity during low rainfall periods. The proposed water treatment plant will source water from the Cumberland River.</p>				
PROJECT FINANCING		PROJECT BUDGET		
2015 Fund F Loan	\$8,000,000	Administrative Expenses	\$62,500	
2016 Fund F Loan	7,564,332	Legal Expenses	22,000	
HB 235 8N-2014	320,096	Land, Easements	150,000	
HB 235 6N-2014	78,266	Eng - Design / Const	6.4% 1.1% 160,000	
		Eng - Insp	4.1% 1.7% 260,000	
		Eng - Other	75,000	
		Construction	14,440,694	
		Contingency	550,000	
		Other	242,500	
TOTAL	\$15,962,694	TOTAL	\$15,962,694	
REPAYMENT	Rate Term	0.75% 30 Years	Est. Annual Payment \$503,701 1st Payment 6 Mo. after first draw	
PROFESSIONAL SERVICES	Engineer Bond Counsel	Stigall Engineering Associates, Inc Peck, Shaffer, & Williams, a division of Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening Construction Start Construction Stop	Sep-15 May-16 Feb-18		
DEBT PER CUSTOMER	Existing Proposed	\$759 \$3,920		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES	Current	Users 3,435	Avg. Bill \$32.55 (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 2012	436,904	222,376	214,528	2.0
Audited 2013	528,841	216,950	311,891	2.4
Audited 2014	382,065	220,644	161,421	1.7
Projected 2015	340,641	218,438	122,203	1.6
Projected 2016	325,122	219,853	105,269	1.5
Projected 2017	566,618	219,478	347,140	2.6
Projected 2018	647,672	471,737	175,935	1.4
Projected 2019	737,900	707,731	30,169	1.0

Reviewer: Brandi Norton
Date: December 3, 2015
Loan Number: F15-002 Increase

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND "F")
MONROE COUNTY WATER DISTRICT, MONROE COUNTY
PROJECT REVIEW
WX21171045**

I. PROJECT DESCRIPTION

The Monroe County Water District ("District") is requesting an increase of \$3,550,694 to a previously approved \$12,013,638 Fund "F" loan for the Regional Water Treatment Plant and System Improvements Project. The project was presented in July 2015 and was competitively bid in three contracts. The lowest bid exceeded the engineer's estimate by \$3,865,694.

The project will construct a new raw water intake on the Cumberland River, a 600,000 gallon water storage tank, one pump station, transmission lines and a two million gallon per day water treatment plant. Plans and specifications for the water treatment plant are substantially complete and were grant funded as a component of other water system improvements projects. The final plant design will permit a one million gallon per day expansion if demand increases. The District has secured a water withdrawal permit through the Division of Water (DOW) and the Army Corps of Engineers. The project ranked second out of sixty-seven projects by the DOW for the 2015 funding cycle and has consistently ranked high in previous funding cycles.

The District purchases about 275 million gallons of water per year from the City of Tompkinsville ("the "City") to support 3,400 customers and is subject to Public Service Commission jurisdiction. The City sources water from Mill Creek Lake and has frequently been unable to provide required water demand during peak or drought periods. Additionally, the City has been subject to periodic Notices of Violation (NOV) from the Division of Water. Upgrades to the City's water treatment plant would not remedy the ongoing supply constraint. The District has made numerous attempts over several years to partner with the City on a regional solution to jointly address these issues but has been unsuccessful.

The District also serves residents of the City of Gamaliel and provides an emergency connection to the Fountain Run Water District #1.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 62,500
Legal Expenses	22,000
Land, Easements	150,000
Engineering Fees - Design / Const	160,000
Engineering Fees - Inspection	260,000
Engineering Fees - Other	75,000
Construction	14,440,694
Contingency	550,000
Other	242,500
Total	\$ 15,962,694

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
2015 Fund F Loan	\$ 8,000,000	50%
2016 Fund F Loan	7,564,332	47%
HB 235 8N-2014	320,096	2%
HB 235 6N-2014	78,266	0%
Total	\$15,962,694	100%

IV. KIA DEBT SERVICE

	<u>Original</u>	<u>Increase</u>	<u>Total</u>
Construction Loan	\$ 12,013,638	\$ 3,550,694	\$15,564,332
Less: Principal Forgiveness	2,904,091	0	2,904,091
Amortized Loan Amount	\$ 9,109,547	\$ 3,550,694	\$12,660,241
Interest Rate	0.75%	0.75%	0.75%
Loan Term (Years)	30	30	30
Estimated Annual Debt Service	\$ 339,659	\$ 132,391	\$ 472,050
Administrative Fee (0.25%)	22,774	8,877	31,651
Total Estimated Annual Debt Service	\$ 362,433	\$ 141,268	\$ 503,701

V. PROJECT SCHEDULE

Bid Opening	September 2015
Construction Start	May 2016
Construction Stop	February 2018

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Total
Residential	3,235
Commercial	200
Total	3,435

B) Rates

	Current	Prior
Date of Last Rate Increase	03/01/14	12/01/12
Minimum (2,000 gallons)	\$17.95	\$17.15
Next 3,000 Gallons	7.30	6.90
Next 5,000 Gallons	6.10	5.70
All over 10,000 Gallons	5.20	4.80
Cost for 4,000 gallons	\$32.55	\$30.95
Increase %	5.2%	
Affordability Index (Rate/MHI)	1.4%	

The City increased its wholesale rate to the District by 23% from \$1.53 to \$1.88 effective March 1, 2014.

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2008-2012, the Utility's service area population was 7,988 with a Median Household Income (MHI) of \$29,538. The median household income for the Commonwealth is \$42,610. The project will qualify for a .75% interest rate.

Year	Population				Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	4,366		12,353		June 2004	5.5%
1990	2,861	-34.5%	11,401	-7.7%	June 2009	14.8%
2000	2,660	-7.0%	11,756	3.1%	June 2013	8.1%
2010	2,402	-9.7%	10,963	-6.7%	June 2014	6.6%
Current	2,427	1.0%	10,925	-0.3%		
Cumulative %		-44.4%		-11.6%		

VIII. CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - The Drinking Water capitalization grant does not contain a "green" requirement.
- 2) Additional Subsidization – This project qualifies for additional subsidization of 30% of the original project amount of \$8,000,000, not to exceed \$2,904,091.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ending December 31, 2012 through 2014. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Revenues increased 10% from \$1.4 million in 2012 to \$1.6 million in 2014 with the increase being split equally between volume growth and a rate increase. Operating expenses increased 16% from \$1.0 million to \$1.2 million. Approximately \$80,000 of the increase is due to the purchased water rate adjustment with the balance due to higher compensation costs. The debt coverage ratio was 2.0, 2.4 and 1.7 for each of the respective years with average annual debt service of \$220,000.

The balance sheet reflects a current ratio of 7.4, a debt to equity ratio of .3 and the number of months of operating expenses in unrestricted cash is 10.4. The District maintains restricted accounts for bond covenants, customer deposits and a depreciation reserve. The depreciation reserve had a balance of \$347,000, or 2.5% of gross fixed assets at the end of 2014.

Capital spending from 2011 through 2013 was \$2.3 million, which was funded with \$2.0 million in grants and the balance from operations. The District constructed about 10 miles of line extensions and added 106 connections during the period. They also constructed a 350,000 gallon storage tank to replace an existing tank and a new pump station on Capp Harlan Road. The District also has a very active meter testing program having tested about 1,600 during the three year period.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will be flat for growth.
- 2) The District will need to increase revenues by about 9%, or \$150,000 by January 1, 2018 and \$160,000, or 9% by January 1, 2019.
- 3) Expenses will increase 2% annually for inflation.
- 4) Incremental operating expenses of \$310,000 per year will be offset by a reduction in purchased water cost of \$517,000 (275 million gallons at \$1.88 per thousand gallons).
- 5) Debt service coverage is 1.0 in 2019 which is the first full year of principal and interest repayments.

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

REPLACEMENT RESERVE

The annual replacement cost is \$50,000. This amount should be added to the replacement account each December 1 until the balance reaches \$500,000 and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
Series 1978 Bonds (RD)	\$ 68,000	2018
Series 1987 Bonds (RD)	228,000	2027
Series 1990 Bonds (RD)	540,000	2031
Series 1992 Bonds (RD)	339,000	2031
Series 1994 Bonds (RD)	418,000	2033
Series 1998 Bonds (RD)	412,000	2038
Series 1999 Bonds (RD)	226,500	2038
Series 2003 Bonds (RD)	466,500	2043
Total	\$ 2,698,000	

XI. OTHER STATE OR FEDERAL FUNDING IN PAST FIVE YEARS

<u>Project Title</u>	<u>Funding Source</u>	<u>Amount</u>	<u>Type</u>
Treatment Plant Upgrade	HB235	398,362	Grant

XII. CONTACTS

Legal Applicant	
Name	Monroe County Water District
Address	205 Capp Harlan Road Tompkinsville, KY 42167
County	Monroe
Authorized Official	Richard O. Ross (General Manager)
Phone	(270) 487-8131
Email	mcwdrr@scrtc.com

Project Administrator	
Name	Monroe County Water District
Address	205 Capp Harlan Road Tompkinsville, KY 42167
Contact	Jana Dubree
Phone	(270) 487-8131
Email	mcwdjd@scrtc.com

Consulting Engineer	
Name	Robert Stigall, P.E.
Firm	Stigall Engineering Associates, Inc
Address	4117 Hillsboro Pike, Suite 206 Nashville, TN 37215-2728
Phone	(615) 460-7515
Email	rstigall@bellsouth.net

XIII. RECOMMENDATIONS

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

MONROE COUNTY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

	Audited	Audited	Audited	Projected	Projected	Projected	Projected	Projected	Projected
	2012	2013	2014	2015	2016	2017	2018	2019	
Balance Sheet									
Assets									
Current Assets	1,177,047	1,248,006	1,339,137	1,396,161	1,502,230	1,571,670	1,638,205	1,659,274	
Other Assets	10,335,469	10,116,793	9,935,859	9,725,657	9,501,957	13,870,219	23,851,151	23,218,751	
Total	11,512,516	11,364,799	11,274,996	11,121,818	11,004,187	15,441,889	25,489,356	24,878,025	
Liabilities & Equity									
Current Liabilities	319,620	149,946	181,649	181,900	182,400	183,200	184,200	185,500	
Long Term Liabilities	2,904,681	2,816,302	2,723,363	2,636,200	2,539,900	5,237,700	13,591,241	13,479,141	
Total Liabilities	3,224,301	2,966,248	2,905,012	2,818,100	2,722,300	5,420,900	13,775,441	13,664,641	
Net Assets	8,288,215	8,398,551	8,369,984	8,303,718	8,281,887	10,020,989	11,713,915	11,213,384	
Cash Flow									
Revenues	1,453,162	1,535,899	1,631,274	1,631,241	1,631,241	1,631,241	1,781,241	1,944,141	
Operating Expenses	1,023,579	1,014,495	1,249,209	1,290,600	1,306,119	1,064,623	1,133,569	1,206,241	
Other Income	7,321	7,437	0	0	0	0	0	0	
Cash Flow Before Debt Service	436,904	528,841	382,065	340,641	325,122	566,618	647,672	737,900	
Debt Service									
Existing Debt Service	222,376	216,950	220,644	218,438	219,853	219,478	219,886	204,030	
Proposed KIA Loan	0	0	0	0	0	0	251,851	503,701	
Total Debt Service	222,376	216,950	220,644	218,438	219,853	219,478	471,737	707,731	
Cash Flow After Debt Service	214,528	311,891	161,421	122,203	105,269	347,140	175,935	30,169	
Ratios									
Current Ratio	3.7	8.3	7.4	7.7	8.2	8.6	8.9	8.9	
Debt to Equity	0.4	0.4	0.3	0.3	0.3	0.5	1.2	1.2	
Days Sales in Accounts Receivable	73.2	31.2	33.6	33.6	33.6	33.6	33.6	33.6	
Months Operating Expenses in Unrestricted Cash	8.7	11.6	10.4	10.3	10.4	13.5	13.2	13.0	
Debt Coverage Ratio	2.0	2.4	1.7	1.6	1.5	2.6	1.4	1.0	

EXHIBIT 18

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NOTIFICATION OF INTENT TO FINANCE AND APPLICATION FOR DEBT APPROVAL

Form # SLDO-1
Revised 1/1/2011

For DLG staff use only:

File # _____
Received _____

Completion and delivery of this form to the address below shall satisfy the requirements of KRS 65.117, which prohibits any city, county, urban-county, consolidated local government, charter county, special district, or taxing district from entering into any financing obligation of any nature, except leases under \$200,000, without first notifying the state local debt officer in writing. This form shall also serve as application for approval of debt issuance when applicable. An electronic version of the form is available at www.dlg.ky.gov.

✓ **Type of debt to be issued (must check one):** **SLDO Approval Required** **Complete Sections**

<input type="checkbox"/> Short Term Borrowing - KRS 65.7701 et seq.	No	A, B, C
<input type="checkbox"/> Lease from \$200,000 - \$500,000 - KRS 65.940 et seq.	No	A, B, D
<input type="checkbox"/> Lease exceeding \$500,000 - KRS 65.940 et seq.	Yes (Counties only)	A, B, D
<input type="checkbox"/> General Obligation Bond - KRS Chapter 66	Yes (Counties only)	A, B, E
<input type="checkbox"/> Public Project Rev. Bond - KRS Chapter 58	No	A, B, E
<input type="checkbox"/> Public Project Rev. Bond w/Lease - KRS 66.310(2)	Yes (Counties only)	A, B, D, E
<input type="checkbox"/> Industrial Revenue Bond - KRS Chapter 103	Yes (All Borrowers)	A, B, F
<input type="checkbox"/> Other Bonds (True Revenue, Utility Assessment, TIF)	No	A, B, E

X Loan from Kentucky Infrastructure Authority - KRS Chapter 224A

Section A - Borrower Information

Agency Name	Monroe County Water District		
Governing Body	Board of Commissioners		
Street Address	205 Capp Harlan Road		
P.O. Box #	City	Tompkinsville	
County	Monroe	Zip	42167
Authorized Official	Richard O. Ross		

Section B - Terms of Financial Obligation

Please provide all relevant information. Fields in **bold** are mandatory.

Principle Amount:	Supplement Loan: \$111,347 Original Loan: \$15,564,322	Date of Issue:	06/30/2018
Maturity Date(s):	01/01/2049	Payment Schedule:	(must attach schedule)
Term:	30 yrs from in-service date of plant	Number of Renewal Periods:	0
Interest Rate(s):	0.75	Type of Interest (fixed or variable):	Fixed
Retirement Method:	From Water System Revenues		
Lender's Name:	Kentucky Infrastructure Authority		
Lender's Address:	1024 Capitol Center Drive, Suite 340, Frankfort, KY		
Right of Termination:	Not Applicable		
Termination Penalties:	Not Applicable		
Prepayment Provisions:	May prepay & retire entire amount at any time without penalty upon 5 days written notice		
Trustee or Paying Agent:	None		
AOC Funded Percentage:	0.00		

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**NOTIFICATION OF INTENT TO FINANCE
AND APPLICATION FOR DEBT APPROVAL**

Form # SLDO-1
Revised 1/1/2011

Section C - Note (Loan) Information/Documentation

Purpose - Briefly explain the documented need that necessitates this note (loan) and the public purpose it is intended to address. (Attach additional information if necessary):

Supplementing initial loan of \$15,564,332. Supplement loan necessary for the construction of an additional improvement to newly constructed water treatment plant. Construction is required under an Agreed Order with the Energy and Environment Cabinet. A copy of the notification of the intent to enter the original loan with KIA is attached.

Pledge of Taxes/Description:

None

Pledge of Revenue/Description:

Water System revenues will be used to repay borrowed funds

Pledge of Project Revenues (Attach documentation which substantiates the revenue projections):

See Notification of Intent to Finance for original loan (Attached).

Have bids been sought by the local governments to determine the financial and programmatic competitiveness of the note (loan) proposal? Yes No

If No, explain what steps were taken to ensure adequate competition.

Loan is governed by provisions of KRS Chapter 224A. Interest rate is below market rate. Loan forgiveness feature is included in the original loan.

Required Attachments

- 1. Certification from local government attesting to the ability to meet additional financial commitments necessitated by the note and statement as to taxes and revenues to be collected during the term of the note.

Section D - Lease Information/Documentation

Describe the real or personal property to be acquired or constructed:

Type of Lease : General Obligation Revenue

Is Lease Annually Renewable? Yes No

Does Agency seek approval without a hearing? Yes No Justification: Revenue Refunding

If yes, must attach certification from counsel regarding county obligation.

Does this lease refund a prior lease? Yes No

If yes, please state the name, date and principal amount of original issue(s) being refunded:

Required Attachments (If lease requires SLDO approval)

- 1. Minutes from the local public hearing
- 2. Affidavit of publication of SLDO hearing (if hearing is required) and newspaper advertisement tear sheet
- 3. Copy of lease
- 4. Executed copy of ordinance/resolution of fiscal court authorizing the lease
- 5. Certification from local government attesting to the ability to meet additional financial commitments necessitated by the lease and statement as to taxes and revenues to be collected during the term of the lease.

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**NOTIFICATION OF INTENT TO FINANCE
AND APPLICATION FOR DEBT APPROVAL**

Form # SLDO-1
Revised 1/1/2011

Section E - Bond Information/Documentation

Please provide all relevant information. Fields in **bold** are mandatory

Describe the purpose of the bond:
NOT APPLICABLE - NO BONDS WILL BE ISSUED

Bond Counsel:

Counsel Address:

Financial Advisor:

Advisor Address:

Bond Series:

Call Date:

Does this bond refund a prior bond? Yes No

If yes, please state the name, date and principal amount of original issue(s) being refunded:

Required Attachments (If SLDO Approval is Required)

1. Minutes from the local public hearing
2. Affidavit of publication of SLDO hearing and newspaper advertisement tear sheet
3. Executed copy of ordinance/resolution of fiscal court authorizing financial plan for the issuance of the bonds
4. Proposed plan of financing
5. Preliminary official statement (if applicable)
6. Sources and uses table

Additional Required Attachments for KRS Chapter 103 Bonds

1. Documentation in an appropriate form substantiating the project's eligibility under KRS 103.2101(1)(a)-(e).
2. If the project requires approval of the reduction in property taxes, attach any documentation provided to agency responsible for approval.

By signing below, the Authorized Official certifies that the foregoing is true and accurate to the best of his or her knowledge.

Name (please print) Richard O. Ross

Date: 05/21/2018

Title: General Manager

Signature: 

Mail to:

Department for Local Government
Attn: State Local Debt Officer
1024 Capital Center Drive, Suite 340
Frankfort, KY 40601

Fax to: 502-573-3712



KENTUCKY INFRASTRUCTURE AUTHORITY

Matthew G. Bevin
Governor

Capital Center Complex
1024 Capital Center Drive, Suite 340
Frankfort, Kentucky 40601
(502) 573-0260
(502) 573-0157 (fax)
kia.ky.gov

Donna McNeil
Executive Director

May 17, 2018

Monroe County Water District
Attn: Mark Williams
205 Capp Harlan Road
Tompkinsville, KY 42167

RE: DWSRF Increase Request, F15-002

Dear Chairman Williams:

Thank you for your recent request on May 7, 2018, to increase your Drinking Water State Revolving Fund (DWSRF) loan from \$15,564,332 to \$15,675,679 to better serve the customers of the Monroe County Water District. According to your correspondence, the increase of \$111,347 is needed to provide treatment redundancy at the new water treatment facility. This request is approved, contingent upon a financial analysis that will be conducted by one of our loan analyst (you may be contacted for additional information). This loan increase is less than 10% of the original KIA loan and does not require KIA board approval. Upon approval of the credit analysis, you will receive a Conditional Commitment Letter for the loan increase and a Supplemental Assistance Agreement will be initiated.

If you have any questions, please don't hesitate to contact Amanda Yearly at 502.892.3486 or amanda.yearly@ky.gov.

Respectfully,

A handwritten signature in blue ink that reads "Donna McNeil".

Executive Director
Kentucky Infrastructure Authority

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NOTIFICATION OF INTENT TO FINANCE AND APPLICATION FOR DEBT APPROVAL

Form # SLDO-1
Revised 1/1/2011

For DLG staff use only:

File # _____
Received _____

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✓ **Type of debt to be issued (must check one):** **SLDO Approval Required** **Complete Sections**

<input type="checkbox"/> Short Term Borrowing - KRS 65.7701 et seq.	No	A, B, C
<input type="checkbox"/> Lease from \$200,000 - \$500,000 - KRS 65.940 et seq.	No	A, B, D
<input type="checkbox"/> Lease exceeding \$500,000 - KRS 65.940 et seq.	Yes (Counties only)	A, B, D
<input type="checkbox"/> General Obligation Bond - KRS Chapter 66	Yes (Counties only)	A, B, E
<input type="checkbox"/> Public Project Rev. Bond - KRS Chapter 58	No	A, B, E
<input type="checkbox"/> Public Project Rev. Bond w/Lease - KRS 66.310(2)	Yes (Counties only)	A, B, D, E
<input type="checkbox"/> Industrial Revenue Bond - KRS Chapter 103	Yes (All Borrowers)	A, B, F
<input type="checkbox"/> Other Bonds (True Revenue, Utility Assessment, TIF)	No	A, B, E

X Loan from Kentucky Infrastructure Authority - KRS Chapter 224A

Section A - Borrower Information

Agency Name	Monroe County Water District		
Governing Body	Board of Commissioners		
Street Address	205 Capp Harlan Road		
P.O. Box #	City	Tompkinsville	
County	Zip	42167	
Authorized Official	Richard O. Ross		

Section B - Terms of Financial Obligation

Please provide all relevant information. Fields in **bold** are mandatory.

Principle Amount:	\$15,564,332.00	Date of Issue:	06/30/2016
Maturity Date(s):	07/01/2049	Payment Schedule:	(must attach schedule)
Term:	30 yrs from in-service date of plant	Number of Renewal Periods:	0
Interest Rate(s):	0.75	Type of Interest (fixed or variable):	Fixed
Retirement Method:	From Water System Revenues		
Lender's Name:	Kentucky Infrastructure Authority		
Lender's Address:	1024 Capital Center Drive, Suite 340, Frankfort, Kentucky		
Right of Termination:	Not Applicable		
Termination Penalties:	Not Applicable		
Prepayment Provisions:	May prepay & retire entire amount at any time without penalty upon 5 days advance written notice		
Trustee or Paying Agent:	None		
AOC Funded Percentage:	0.00		

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**NOTIFICATION OF INTENT TO FINANCE
AND APPLICATION FOR DEBT APPROVAL**

Form # SLDO-1
Revised 1/1/2011

Section C - Note (Loan) Information/Documentation

Purpose - Briefly explain the documented need that necessitates this note (loan) and the public purpose it is intended to address. (Attach additional information if necessary):

Proceeds from loan will be used to finance the construction of a raw water intake structure, a water treatment plant, a 600,000 gallon elevated water storage tank, and 35,500 linear feet of water distribution main, and the modification of an existing pumping structure.

Pledge of Taxes/Description:

None

Pledge of Revenue/Description:

Water System revenues will be used to repay borrowed funds.

Pledge of Project Revenues (Attach documentation which substantiates the revenue projections):

Documentation prepared by Kentucky Infrastructure Authority is attached.

Have bids been sought by the local governments to determine the financial and programmatic competitiveness of the note (loan) proposal? Yes No

If No, explain what steps were taken to ensure adequate competition.

Loan was obtained from the Kentucky Infrastructure Authority pursuant to KRS Chapter 224A. Interest rate is below market rate. Loan forgiveness feature is included in the terms of the loan.

Required Attachments

- 1. Certification from local government attesting to the ability to meet additional financial commitments necessitated by the note and statement as to taxes and revenues to be collected during the term of the note.

Section D - Lease Information/Documentation

Describe the real or personal property to be acquired or constructed:

NOT APPLICABLE - No lease will be executed.

Type of Lease : General Obligation Revenue

Is Lease Annually Renewable? Yes No

Does Agency seek approval without a hearing? Yes No Justification: Revenue Refunding

If yes, must attach certification from counsel regarding county obligation.

Does this lease refund a prior lease? Yes No

If yes, please state the name, date and principal amount of original issue(s) being refunded:

Required Attachments (If lease requires SLDO approval)

- 1. Minutes from the local public hearing
- 2. Affidavit of publication of SLDO hearing (if hearing is required) and newspaper advertisement tear sheet
- 3. Copy of lease
- 4. Executed copy of ordinance/resolution of fiscal court authorizing the lease
- 5. Certification from local government attesting to the ability to meet additional financial commitments necessitated by the lease and statement as to taxes and revenues to be collected during the term of the lease.

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**NOTIFICATION OF INTENT TO FINANCE
AND APPLICATION FOR DEBT APPROVAL**

Form # SLDO-1
Revised 1/1/2011

Section E - Bond Information/Documentation

Please provide all relevant information. Fields in **bold** are mandatory

Describe the purpose of the bond:

NOT APPLICABLE - No bonds will be issued

Bond Counsel:

Counsel Address:

Financial Advisor:

Advisor Address:

Bond Series:

Call Date:

Does this bond refund a prior bond? Yes No

If yes, please state the name, date and principal amount of original issue(s) being refunded:

Required Attachments (If SLDO Approval is Required)

1. Minutes from the local public hearing
2. Affidavit of publication of SLDO hearing and newspaper advertisement tear sheet
3. Executed copy of ordinance/resolution of fiscal court authorizing financial plan for the issuance of the bonds
4. Proposed plan of financing
5. Preliminary official statement (if applicable)
6. Sources and uses table

Additional Required Attachments for KRS Chapter 103 Bonds

1. Documentation in an appropriate form substantiating the project's eligibility under KRS 103.2101(1)(a)-(e).
2. If the project requires approval of the reduction in property taxes, attach any documentation provided to agency responsible for approval.

By signing below, the Authorized Official certifies that the foregoing is true and accurate to the best of his or her knowledge.

Name (please print) Richard O. Ross	Date: 01/04/2016
Title: General Manager	Signature: <i>Richard O. Ross</i>

Mail to:
Department for Local Government
Attn: State Local Debt Officer
1024 Capital Center Drive, Suite 340
Frankfort, KY 40601

Fax to: 502-573-3712

EXECUTIVE SUMMARY		Reviewer	Brandi Norton	
KENTUCKY INFRASTRUCTURE AUTHORITY		Date	December 3, 2015	
FUND F, FEDERALLY ASSISTED DRINKING WATER		KIA Loan Number	F15-002 Increase	
REVOLVING LOAN FUND		WRIS Number	WX21171045	
BORROWER	MONROE COUNTY WATER DISTRICT MONROE COUNTY			
BRIEF DESCRIPTION				
<p>The Monroe County Water District is requesting an increase of \$3,550,694 to a previously approved \$12,013,638 loan for the Regional Water Treatment Plant and System Improvements Project. The project was presented in July 2015 and has since been competitively bid in three contracts. The increase will cover the overage required from the lowest bidder to complete the project. The original project description is below:</p> <p>This project involves the construction of a new water intake, a 600,000 water storage tank, one pump station, transmission lines and a two million gallon per day water treatment plant. The District currently purchases potable water from the City of Tompkinsville, which has frequently experienced water shortages, particularly during drought periods. The City's water source is Mill Creek Lake, which has limited capacity during low rainfall periods. The proposed water treatment plant will source water from the Cumberland River.</p>				
PROJECT FINANCING		PROJECT BUDGET		
2015 Fund F Loan	\$8,000,000	Administrative Expenses	RD Fee %	Actual %
2016 Fund F Loan	7,564,332	Legal Expenses		\$62,500
HB 235 8N-2014	320,096	Land, Easements		22,000
HB 235 6N-2014	78,266	Eng - Design / Const	6.4%	1.1%
		Eng - Insp	4.1%	1.7%
		Eng - Other		75,000
		Construction		14,440,694
		Contingency		550,000
		Other		242,500
TOTAL	\$15,962,694	TOTAL		\$15,962,694
REPAYMENT	Rate	0.75%	Est. Annual Payment	\$503,701
	Term	30 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Stigall Engineering Associates, Inc		
	Bond Counsel	Peck, Shaffer, & Williams, a division of Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Sep-15		
	Construction Start	May-16		
	Construction Stop	Feb-18		
DEBT PER CUSTOMER	Existing	\$759		
	Proposed	\$3,920		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES	Current	<u>Users</u> 3,435	<u>Avg. Bill</u> \$32.55	(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 2012	436,904	222,376	214,528	2.0
Audited 2013	528,841	216,950	311,891	2.4
Audited 2014	382,065	220,644	161,421	1.7
Projected 2015	340,641	218,438	122,203	1.6
Projected 2016	325,122	219,853	105,269	1.5
Projected 2017	566,618	219,478	347,140	2.6
Projected 2018	647,672	471,737	175,935	1.4
Projected 2019	737,900	707,731	30,169	1.0

Reviewer: Brandi Norton
Date: December 3, 2015
Loan Number: F15-002 Increase

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND "F")
MONROE COUNTY WATER DISTRICT, MONROE COUNTY
PROJECT REVIEW
WX21171045**

I. PROJECT DESCRIPTION

The Monroe County Water District ("District") is requesting an increase of \$3,550,694 to a previously approved \$12,013,638 Fund "F" loan for the Regional Water Treatment Plant and System Improvements Project. The project was presented in July 2015 and was competitively bid in three contracts. The lowest bid exceeded the engineer's estimate by \$3,865,694.

The project will construct a new raw water intake on the Cumberland River, a 600,000 gallon water storage tank, one pump station, transmission lines and a two million gallon per day water treatment plant. Plans and specifications for the water treatment plant are substantially complete and were grant funded as a component of other water system improvements projects. The final plant design will permit a one million gallon per day expansion if demand increases. The District has secured a water withdrawal permit through the Division of Water (DOW) and the Army Corps of Engineers. The project ranked second out of sixty-seven projects by the DOW for the 2015 funding cycle and has consistently ranked high in previous funding cycles.

The District purchases about 275 million gallons of water per year from the City of Tompkinsville ("the "City") to support 3,400 customers and is subject to Public Service Commission jurisdiction. The City sources water from Mill Creek Lake and has frequently been unable to provide required water demand during peak or drought periods. Additionally, the City has been subject to periodic Notices of Violation (NOV) from the Division of Water. Upgrades to the City's water treatment plant would not remedy the ongoing supply constraint. The District has made numerous attempts over several years to partner with the City on a regional solution to jointly address these issues but has been unsuccessful.

The District also serves residents of the City of Gamaliel and provides an emergency connection to the Fountain Run Water District #1.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 62,500
Legal Expenses	22,000
Land, Easements	150,000
Engineering Fees - Design / Const	160,000
Engineering Fees - Inspection	260,000
Engineering Fees - Other	75,000
Construction	14,440,694
Contingency	550,000
Other	242,500
Total	\$ 15,962,694

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
2015 Fund F Loan	\$ 8,000,000	50%
2016 Fund F Loan	7,564,332	47%
HB 235 8N-2014	320,096	2%
HB 235 6N-2014	78,266	0%
Total	\$15,962,694	100%

IV. KIA DEBT SERVICE

	Original	Increase	Total
Construction Loan	\$ 12,013,638	\$ 3,550,694	\$15,564,332
Less: Principal Forgiveness	2,904,091	0	2,904,091
Amortized Loan Amount	\$ 9,109,547	\$ 3,550,694	\$12,660,241
Interest Rate	0.75%	0.75%	0.75%
Loan Term (Years)	30	30	30
Estimated Annual Debt Service	\$ 339,659	\$ 132,391	\$ 472,050
Administrative Fee (0.25%)	22,774	8,877	31,651
Total Estimated Annual Debt Service	\$ 362,433	\$ 141,268	\$ 503,701

V. PROJECT SCHEDULE

Bid Opening	September 2015
Construction Start	May 2016
Construction Stop	February 2018

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Total
Residential	3,235
Commercial	200
Total	3,435

B) Rates

	Current	Prior
Date of Last Rate Increase	03/01/14	12/01/12
Minimum (2,000 gallons)	\$17.95	\$17.15
Next 3,000 Gallons	7.30	6.90
Next 5,000 Gallons	6.10	5.70
All over 10,000 Gallons	5.20	4.80
Cost for 4,000 gallons	\$32.55	\$30.95
Increase %	5.2%	
Affordability Index (Rate/MHI)	1.4%	

The City increased its wholesale rate to the District by 23% from \$1.53 to \$1.88 effective March 1, 2014.

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2008-2012, the Utility's service area population was 7,988 with a Median Household Income (MHI) of \$29,538. The median household income for the Commonwealth is \$42,610. The project will qualify for a .75% interest rate.

Year	Population				Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	4,366		12,353		June 2004	5.5%
1990	2,861	-34.5%	11,401	-7.7%	June 2009	14.8%
2000	2,660	-7.0%	11,756	3.1%	June 2013	8.1%
2010	2,402	-9.7%	10,963	-6.7%	June 2014	6.6%
Current	2,427	1.0%	10,925	-0.3%		
Cumulative %		-44.4%		-11.6%		

VIII. CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - The Drinking Water capitalization grant does not contain a "green" requirement.
- 2) Additional Subsidization – This project qualifies for additional subsidization of 30% of the original project amount of \$8,000,000, not to exceed \$2,904,091.

IX. FINANCIAL ANALYSIS

Financial information was obtained from the audited financial statements for the years ending December 31, 2012 through 2014. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Revenues increased 10% from \$1.4 million in 2012 to \$1.6 million in 2014 with the increase being split equally between volume growth and a rate increase. Operating expenses increased 16% from \$1.0 million to \$1.2 million. Approximately \$80,000 of the increase is due to the purchased water rate adjustment with the balance due to higher compensation costs. The debt coverage ratio was 2.0, 2.4 and 1.7 for each of the respective years with average annual debt service of \$220,000.

The balance sheet reflects a current ratio of 7.4, a debt to equity ratio of .3 and the number of months of operating expenses in unrestricted cash is 10.4. The District maintains restricted accounts for bond covenants, customer deposits and a depreciation reserve. The depreciation reserve had a balance of \$347,000, or 2.5% of gross fixed assets at the end of 2014.

Capital spending from 2011 through 2013 was \$2.3 million, which was funded with \$2.0 million in grants and the balance from operations. The District constructed about 10 miles of line extensions and added 106 connections during the period. They also constructed a 350,000 gallon storage tank to replace an existing tank and a new pump station on Capp Harlan Road. The District also has a very active meter testing program having tested about 1,600 during the three year period.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will be flat for growth.
- 2) The District will need to increase revenues by about 9%, or \$150,000 by January 1, 2018 and \$160,000, or 9% by January 1, 2019.
- 3) Expenses will increase 2% annually for inflation.
- 4) Incremental operating expenses of \$310,000 per year will be offset by a reduction in purchased water cost of \$517,000 (275 million gallons at \$1.88 per thousand gallons).
- 5) Debt service coverage is 1.0 in 2019 which is the first full year of principal and interest repayments.

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

REPLACEMENT RESERVE

The annual replacement cost is \$50,000. This amount should be added to the replacement account each December 1 until the balance reaches \$500,000 and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
Series 1978 Bonds (RD)	\$ 68,000	2018
Series 1987 Bonds (RD)	228,000	2027
Series 1990 Bonds (RD)	540,000	2031
Series 1992 Bonds (RD)	339,000	2031
Series 1994 Bonds (RD)	418,000	2033
Series 1998 Bonds (RD)	412,000	2038
Series 1999 Bonds (RD)	226,500	2038
Series 2003 Bonds (RD)	466,500	2043
Total	\$ 2,698,000	

XI. OTHER STATE OR FEDERAL FUNDING IN PAST FIVE YEARS

<u>Project Title</u>	<u>Funding Source</u>	<u>Amount</u>	<u>Type</u>
Treatment Plant Upgrade	HB235	398,362	Grant

XII. CONTACTS

Legal Applicant	
Name	Monroe County Water District
Address	205 Capp Harlan Road Tompkinsville, KY 42167
County	Monroe
Authorized Official	Richard O. Ross (General Manager)
Phone	(270) 487-8131
Email	mcwdrr@scrtc.com

Project Administrator	
Name	Monroe County Water District
Address	205 Capp Harlan Road Tompkinsville, KY 42167
Contact	Jana Dubree
Phone	(270) 487-8131
Email	mcwdjd@scrtc.com

Consulting Engineer	
Name	Robert Stigall, P.E.
Firm	Stigall Engineering Associates, Inc
Address	4117 Hillsboro Pike, Suite 206 Nashville, TN 37215-2728
Phone	(615) 460-7515
Email	rstigall@bellsouth.net

XIII. RECOMMENDATIONS

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

MONROE COUNTY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

Balance Sheet

	Audited 2012	Audited 2013	Audited 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
Assets								
Current Assets	1,177,047	1,248,006	1,339,137	1,396,161	1,502,230	1,571,670	1,638,205	1,659,274
Other Assets	10,335,469	10,116,793	9,935,859	9,725,657	9,501,957	13,870,219	23,851,151	23,218,751
Total	11,512,516	11,364,799	11,274,996	11,121,818	11,004,187	15,441,889	25,489,356	24,878,025

Liabilities & Equity

Current Liabilities	319,620	149,946	181,649	181,900	182,400	183,200	184,200	185,500
Long Term Liabilities	2,904,681	2,816,302	2,723,363	2,636,200	2,539,900	5,237,700	13,591,241	13,479,141
Total Liabilities	3,224,301	2,966,248	2,905,012	2,818,100	2,722,300	5,420,900	13,775,441	13,664,641
Net Assets	8,288,215	8,398,551	8,369,984	8,303,718	8,281,887	10,020,989	11,713,915	11,213,384

Cash Flow

Revenues	1,453,162	1,535,899	1,631,274	1,631,241	1,631,241	1,631,241	1,781,241	1,944,141
Operating Expenses	1,023,579	1,014,495	1,249,209	1,290,600	1,306,119	1,064,623	1,133,569	1,206,241
Other Income	7,321	7,437	0	0	0	0	0	0
Cash Flow Before Debt Service	436,904	528,841	382,065	340,641	325,122	566,618	647,672	737,900

Debt Service

Existing Debt Service	222,376	216,950	220,644	218,438	219,853	219,478	219,886	204,030
Proposed KIA Loan	0	0	0	0	0	0	251,851	503,701
Total Debt Service	222,376	216,950	220,644	218,438	219,853	219,478	471,737	707,731
Cash Flow After Debt Service	214,528	311,891	161,421	122,203	105,269	347,140	175,935	30,169

Ratios

Current Ratio	3.7	8.3	7.4	7.7	8.2	8.6	8.9	8.9
Debt to Equity	0.4	0.4	0.3	0.3	0.3	0.5	1.2	1.2
Days Sales in Accounts Receivable	73.2	31.2	33.6	33.6	33.6	33.6	33.6	33.6
Months Operating Expenses in Unrestricted Cash	8.7	11.6	10.4	10.3	10.4	13.5	13.2	13.0
Debt Coverage Ratio	2.0	2.4	1.7	1.6	1.5	2.6	1.4	1.0

EXECUTIVE SUMMARY KENTUCKY INFRASTRUCTURE AUTHORITY FUND F, FEDERALLY ASSISTED DRINKING WATER REVOLVING LOAN FUND		Reviewer Date KIA Loan Number WRIS Number	Brandi Norton July 2, 2015 F15-002 Adjustment WX21171045	
BORROWER	MONROE COUNTY WATER DISTRICT MONROE COUNTY			
BRIEF DESCRIPTION				
<p>This project involves the construction of a new water intake, a 600,000 water storage tank, one pump station, transmission lines and a two million gallon per day water treatment plant. The District currently purchases potable water from the City of Tompkinsville, which has frequently experienced water shortages, particularly during drought periods. The City's water source is Mill Creek Lake, which has limited capacity during low rainfall periods. The proposed water treatment plant will source water from the Cumberland River.</p>				
PROJECT FINANCING		PROJECT BUDGET		
2015 Fund F Loan	\$8,000,000	Administrative Expenses	\$62,500	
2016 Fund F Loan	4,013,638	Legal Expenses	22,000	
HB 235 8N-2014	320,096	Land, Easements	150,000	
HB 235 6N-2014	78,266	Eng - Design / Const	160,000	
		6.4%	1.4%	
		Eng - Insp	260,000	
		3.0%	2.3%	
		Eng - Other	75,000	
		Construction	10,900,000	
		Contingency	550,000	
		Other	232,500	
TOTAL	\$12,412,000	TOTAL	\$12,412,000	
REPAYMENT	Rate	0.75%	Est. Annual Payment	\$250,652
	Term	30 Years	1st Payment	6 Mo. after first draw
PROFESSIONAL SERVICES	Engineer	Stigall Engineering Associates, Inc		
	Bond Counsel	Peck, Shaffer, & Williams, a division of Dinsmore & Shohl, LLP		
PROJECT SCHEDULE	Bid Opening	Jul-15		
	Construction Start	Oct-15		
	Construction Stop	Dec-17		
DEBT PER CUSTOMER	Existing	\$759		
	Proposed	\$3,121		
OTHER DEBT	See Attached			
OTHER STATE-FUNDED PROJECTS LAST 5 YRS	See Attached			
RESIDENTIAL RATES		<u>Users</u>	<u>Avg. Bill</u>	
	Current	3,435	\$32.55	(for 4,000 gallons)
	Additional	0	\$32.55	(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 2012	436,904	222,376	214,528	2.0
Audited 2013	528,841	216,950	311,891	2.4
Audited 2014	382,065	220,644	161,421	1.7
Projected 2015	340,641	218,438	122,203	1.6
Projected 2016	325,122	219,853	105,269	1.5
Projected 2017	566,618	219,478	347,140	2.6
Projected 2018	647,672	401,103	246,569	1.6
Projected 2019	577,900	566,463	11,437	1.0

Reviewer: Brandi Norton
Date: July 2, 2015
Loan Number: F15-002 Adjustment

**KENTUCKY INFRASTRUCTURE AUTHORITY
DRINKING WATER STATE REVOLVING FUND (FUND "F")
MONROE COUNTY WATER DISTRICT, MONROE COUNTY
PROJECT REVIEW
WX21171045**

I. PROJECT DESCRIPTION

The Monroe County Water District ("District") is requesting an increase of \$4,013,638 to a previously approved \$8,000,000 Fund "F" loan for the Regional Water Treatment Plant and System Improvements Project. The project presented in December 2014 anticipated a \$4,013,638 bond finance and has since been adjusted to remove the bond funding and replaced with additional KIA funding.

The project will construct a new raw water intake on the Cumberland River, a 600,000 gallon water storage tank, one pump station, transmission lines and a two million gallon per day water treatment plant. Plans and specifications for the water treatment plant are substantially complete and were grant funded as a component of other water system improvements projects. The final plant design will permit a one million gallon per day expansion if demand increases. The District has secured a water withdrawal permit through the Division of Water (DOW) and the Army Corps of Engineers. The project ranked second out of sixty-seven projects by the DOW for the 2015 funding cycle and has consistently ranked high in previous funding cycles.

The District purchases about 275 million gallons of water per year from the City of Tompkinsville ("the City") to support 3,400 customers and is subject to Public Service Commission jurisdiction. The City sources water from Mill Creek Lake and has frequently been unable to provide required water demand during peak or drought periods. Additionally, the City has been subject to periodic Notices of Violation (NOV) from the Division of Water. Upgrades to the City's water treatment plant would not remedy the ongoing supply constraint. The District has made numerous attempts over several years to partner with the City on a regional solution to jointly address these issues but has been unsuccessful.

The District also serves residents of the City of Gamaliel and provides an emergency connection to the Fountain Run Water District #1.

II. PROJECT BUDGET

	<u>Total</u>
Administrative Expenses	\$ 62,500
Legal Expenses	22,000
Land, Easements	150,000
Engineering Fees – Design / Const	160,000
Engineering Fees - Inspection	260,000
Engineering Fees - Other	75,000
Construction	10,900,000
Contingency	550,000
Other	232,500
Total	\$ 12,412,000

III. PROJECT FUNDING

	<u>Amount</u>	<u>%</u>
2015 Fund F Loan	\$ 8,000,000	64%
2016 Fund F Loan	4,013,638	32%
HB 235 8N-2014	320,096	3%
HB 235 6N-2014	78,266	1%
Total	\$ 12,412,000	100%

IV. KIA DEBT SERVICE

Construction Loan	\$ 12,013,638
Less: Principal Forgiveness (24%)	2,904,091
Amortized Loan Amount	\$ 9,109,547
Interest Rate	0.75%
Loan Term (Years)	30
Estimated Annual Debt Service	\$ 339,659
Administrative Fee (0.25%)	22,774
Total Estimated Annual Debt Service	\$ 362,433

V. PROJECT SCHEDULE

Bid Opening	July 2015
Construction Start	October 2015
Construction Stop	December 2017

VI. CUSTOMER COMPOSITION AND RATE STRUCTURE

A) Customers

Customers	Total
Residential	3,235
Commercial	200
Total	3,435

B) Rates

	Current	Prior
Date of Last Rate Increase	03/01/14	12/01/12
Minimum (2,000 gallons)	\$17.95	\$17.15
Next 3,000 Gallons	7.30	6.90
Next 5,000 Gallons	6.10	5.70
All over 10,000 Gallons	5.20	4.80
Cost for 4,000 gallons	\$32.55	\$30.95
Increase %	5.2%	
Affordability Index (Rate/MHI)	1.4%	

The City increased its wholesale rate to the District by 23% from \$1.53 to \$1.88 effective March 1, 2014.

VII. DEMOGRAPHICS

Based on current Census data from the American Community Survey 5-Year Estimate 2008-2012, the Utility's service area population was 7,988 with a Median Household Income (MHI) of \$29,538. The median household income for the Commonwealth is \$42,610. The project will qualify for a .75% interest rate.

Year	Population				Unemployment	
	City	% Change	County	% Change	Date	Rate
1980	4,366		12,353		June 2004	5.5%
1990	2,861	-34.5%	11,401	-7.7%	June 2009	14.8%
2000	2,660	-7.0%	11,756	3.1%	June 2013	8.1%
2010	2,402	-9.7%	10,963	-6.7%	June 2014	6.6%
Current	2,427	1.0%	10,925	-0.3%		
Cumulative %		-44.4%		-11.6%		

VIII. 2014 CAPITALIZATION GRANT EQUIVALENCIES

- 1) Green Project Reserve - The Drinking Water capitalization grant does not contain a "green" requirement.
- 2) Additional Subsidization – This project qualifies for additional subsidization of 30%, not to exceed \$2,904,091.

IX. FINANCIAL ANALYSIS (See Exhibit 1)

Financial information was obtained from the audited financial statements for the years ended December 31, 2012 through 2014. Percentage references in the History section below are based on whole dollar amounts and not the rounded amounts presented.

HISTORY

Revenues increased 10% from \$1.4 million in 2012 to \$1.6 million in 2014 with the increase being split equally between volume growth and a rate increase. Operating expenses increased 16% from \$1.0 million to \$1.2 million. Approximately \$80,000 of the increase is due to the purchased water rate adjustment with the balance due to higher compensation costs. The debt coverage ratio was 2.0, 2.4 and 1.7 for each of the respective years with average annual debt service of \$220,000.

The balance sheet reflects a current ratio of 7.4, a debt to equity ratio of .3 and the number of months of operating expenses in unrestricted cash is 10.4. The District maintains restricted accounts for bond covenants, customer deposits and a depreciation reserve. The depreciation reserve had a balance of \$347,000, or 2.5% of gross fixed assets at the end of 2014.

Capital spending from 2011 through 2013 was \$2.3 million, which was funded with \$2.0 million in grants and the balance from operations. The District constructed about 10 miles of line extensions and added 106 connections during the period. They also constructed a 350,000 gallon storage tank to replace an existing tank and a new pump station on Capp Harlan Road. The District also has a very active meter testing program having tested about 1,600 during the three year period.

PROJECTIONS

Projections are based on the following assumptions:

- 1) Revenues will be flat for growth.
- 2) The District will need to increase revenues by about 9%, or \$150,000, at the beginning of 2018.
- 3) Expenses will increase 2% annually for inflation.
- 4) Incremental operating expenses of \$310,000 per year will be offset by a reduction in purchased water cost of \$517,000 (275 million gallons at \$1.88 per thousand gallons).
- 5) Debt service coverage is 1.0 in 2019 which is the first full year of principal and interest repayments.

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

REPLACEMENT RESERVE

The annual replacement cost is \$50,000. This amount should be added to the replacement account each December 1 until the balance reaches \$500,000 and maintained for the life of the loan.

X. DEBT OBLIGATIONS

	<u>Outstanding</u>	<u>Maturity</u>
Series 1978 Bonds (RD)	\$ 68,000	2018
Series 1987 Bonds (RD)	228,000	2027
Series 1990 Bonds (RD)	540,000	2031
Series 1992 Bonds (RD)	339,000	2031
Series 1994 Bonds (RD)	418,000	2033
Series 1998 Bonds (RD)	412,000	2038
Series 1999 Bonds (RD)	226,500	2038
Series 2003 Bonds (RD)	466,500	2043
Total	\$ 2,698,000	

XI. OTHER STATE OR FEDERAL FUNDING IN PAST FIVE YEARS

<u>Project Title</u>	<u>Funding Source</u>	<u>Amount</u>	<u>Type</u>
Treatment Plant Upgrade	HB235	398,362	Grant

XII. CONTACTS

Legal Applicant	
Name	Monroe County Water District
Address	205 Capp Harlan Road Tompkinsville, KY 42167
County	Monroe
Authorized Official	Richard O. Ross (General Manager)
Phone	(270) 487-8131
Email	mcwdr@scrtc.com

Project Administrator	
Name	Monroe County Water District
Address	205 Capp Harlan Road Tompkinsville, KY 42167
Contact	Jana Dubree
Phone	(270) 487-8131
Email	mcwdjd@scrtc.com

Consulting Engineer	
Name	Robert Stigall, P.E.
Firm	Stigall Engineering Associates, Inc
Address	4117 Hillsboro Pike, Suite 206 Nashville, TN 37215-2728
Phone	(615) 460-7515
Email	rstigall@bellsouth.net

XIII. RECOMMENDATIONS

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

MONROE COUNTY WATER DISTRICT
FINANCIAL SUMMARY (DECEMBER YEAR END)

Balance Sheet

	Audited 2012	Audited 2013	Audited 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
Assets								
Current Assets	1,177,047	1,248,006	1,339,137	1,396,161	1,502,230	1,571,670	1,659,439	1,662,076
Other Assets	10,335,469	10,116,793	9,935,859	13,124,019	20,913,957	21,883,857	21,252,857	21,319,457
Total	11,512,516	11,364,799	11,274,996	14,520,180	22,416,187	23,455,527	22,912,296	22,981,533
Liabilities & Equity								
Current Liabilities	319,620	149,946	181,649	181,900	182,400	183,200	184,200	185,500
Long Term Liabilities	2,904,681	2,816,302	2,723,363	4,736,200	10,249,447	10,847,247	10,740,547	10,628,447
Total Liabilities	3,224,301	2,966,248	2,905,012	4,918,100	10,431,847	11,030,447	10,924,747	10,813,947
Net Assets	8,288,215	8,398,551	8,369,984	9,602,080	11,984,340	12,425,080	11,987,549	12,167,586

Cash Flow

Revenues	1,453,162	1,535,899	1,631,274	1,631,241	1,631,241	1,631,241	1,781,241	1,784,141
Operating Expenses	1,023,579	1,014,495	1,249,209	1,290,600	1,306,119	1,064,623	1,133,569	1,206,241
Other Income	7,321	7,437	0	0	0	0	0	0
Cash Flow Before Debt Service	436,904	528,841	382,065	340,641	325,122	566,618	647,672	577,900
Debt Service								
Existing Debt Service	222,376	216,950	220,644	218,438	219,853	219,478	219,886	204,030
Proposed KIA Loan	0	0	0	0	0	0	181,217	362,433
Total Debt Service	222,376	216,950	220,644	218,438	219,853	219,478	401,103	566,463
Cash Flow After Debt Service	214,528	311,891	161,421	122,203	105,269	347,140	246,569	11,437

Ratios

Current Ratio	3.7	8.3	7.4	7.7	8.2	8.6	9.0	9.0
Debt to Equity	0.4	0.4	0.3	0.5	0.9	0.9	0.9	0.9
Days Sales in Accounts Receivable	73.2	31.2	33.6	33.6	33.6	33.6	33.6	33.6
Months Operating Expenses in Unrestricted Cash	8.7	11.6	10.4	10.3	10.4	13.5	13.4	13.2
Debt Coverage Ratio	2.0	2.4	1.7	1.6	1.5	2.6	1.6	1.0

EXHIBIT 19

**Detailed Estimate of Acquired Property, Arranged According
To The Uniform Systems of Accounts For
Class A/B Water Districts and Associations
(Total Project)**

Account No.	Account Description	Estimate
303	Land and Land Rights	\$ 148,244
304	Structures and Improvements	\$ 748,000
306	Lake, River and Other Intakes	\$ 1,125,000
309	Supply Mains	\$ 250,000
311	Pumping Equipment	\$ 142,000
320	Water Treatment Plant Equipment	\$ 9,382,802
330	Distribution Reservoirs and Standpipes	\$ 1,210,535
331	Transmission and Distribution Mains	\$ 3,007,335
335	Hydrants	\$ 20,125
344	Laboratory Equipment	\$ 40,000
	TOTAL	\$16,074,041

**Detailed Estimate of Acquired Property, Arranged According
To The Uniform Systems of Accounts For
Class A/B Water Districts and Associations
(Proposed Flocculation and Sedimentation Basins Only)**

Account No.	Account Description	Estimate
303	Land and Land Rights	
304	Structures and Improvements	
306	Lake, River and Other Intakes	
309	Supply Mains	
311	Pumping Equipment	
320	Water Treatment Plant Equipment	\$671,555
330	Distribution Reservoirs and Standpipes	
331	Transmission and Distribution Mains	
335	Hydrants	
344	Laboratory Equipment	
	TOTAL	\$671,555