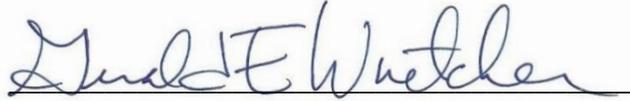


CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that Big Sandy Water District's electronic filing of this Response is a true and accurate copy of the same document being filed in paper medium; that the electronic filing was transmitted to the Public Service Commission on August 2, 2019; that there are currently no parties that the Public Service Commission has excused from participation by electronic means in this proceeding; and that on or before August 6, 2019 this Response in paper medium will be delivered to the Public Service Commission.



Gerald E. Wretcher

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC INVESTIGATION INTO)
EXCESSIVE WATER LOSS BY KENTUCKY'S) CASE NO. 2019-00041
JURISDICTIONAL WATER UTILITIES)

RESPONSE OF
BIG SANDY WATER DISTRICT
TO
COMMISSION STAFF'S REQUEST FOR INFORMATION DATED JULY 25, 2019

FILED: August 2, 2019

BIG SANDY WATER DISTRICT

**Response to Commission Staff's Request for Information Dated July 25, 2019
Case No. 2019-00041**

Question No. 1

Responding Witness: Joseph F. Sisler

Q-1. Provide a copy of the utility's most recent loan application to the United States Department of Agriculture-Rural Development (USDA-RD) with all supporting documents and attachments.

A-1. A copy of Big Sandy Water District's most recent application (SF-424) is attached as Attachment 1-A. The following supporting documents are also attached:

Preliminary Engineering Report	Attachment 1-B
Final Engineering Report	Attachment 1-C
Bid Tabulation	Attachment 1-D
Operation and Management Plan	Attachment 1-E
Letter of Conditions	Attachment 1-F
Letter of Conditions (Revised)	Attachment 1-G
Project Profile	Attachment 1-H

ATTACHMENT 1-A

BIG SANDY WATER DISTRICT
APPLICATION REVISION

*Delivered to District
7/24/18* **SME**

SME: #15030
July 24, 2018
OMB Number: 4040-0004
Expiration Date: 10/31/2019

Application for Federal Assistance SF-424

* 1. Type of Submission:

- Preapplication
 Application
 Changed/Corrected Application

* 2. Type of Application:

- New
 Continuation
 Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

01/18/2016

4. Applicant Identifier:

Water System Improvements

5a. Federal Entity Identifier:

USDA Rural Development

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Big Sandy Water District

* b. Employer/Taxpayer Identification Number (EIN/TIN):

61-0949952

* c. Organizational DUNS:

039063875000

d. Address:

* Street1:

18200 State Route 3

Street2:

* City:

Catlettsburg

County/Parish:

Boyd

* State:

KY: Kentucky

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

41129

e. Organizational Unit:

Department Name:

Water District

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Mr.

* First Name:

Joseph

Middle Name:

F

* Last Name:

Sisler

Suffix:

Title:

President

Organizational Affiliation:

Sisler-Maggard Engineering, PLLC

* Telephone Number:

859-271-2978

Fax Number:

859-271-5670

* Email:

joe@sislermaggard.com

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

D: Special District Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*** Other (specify):**

*** 10. Name of Federal Agency:**

USDA/RUS Rural Development

11. Catalog of Federal Domestic Assistance Number:

10.418

CFDA Title:

Water District Attorney

*** 12. Funding Opportunity Number:**

Letter at later date

*** Title:**

Water District Attorney

13. Competition Identification Number:

Ashland Daily Independent

Title:

Planning, design, construction and other required engineering relating to Water System Improvements. "Request for Qualifications" was published in Ashland Daily Independent.

14. Areas Affected by Project (Cities, Counties, States, etc.):

Boyd, Lawrence and Carter

Add Attachment

Delete Attachment

View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Replace Stream Crossings, replace +/- 750 residential service lines that have manufactured pipe deficiencies, repair & paint multiple water tanks (5-7), upgrade (5) five booster stations, install (1) one new booster station and construct new office building & multiple water loss/system additions and improvements.

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="2,370,000.00"/>
* b. Applicant	<input type="text" value="88,000.00"/>
* c. State	<input type="text"/>
* d. Local	<input type="text"/>
* e. Other	<input type="text"/>
* f. Program Income	<input type="text"/>
* g. TOTAL	<input type="text" value="2,458,000.00"/>

USDA – Rural Development Grant = \$ 700,000
USDA – Rural Development Loan = \$1,670,000

Total = \$2,370,000

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- a. This application was made available to the State under the Executive Order 12372 Process for review on
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:
Middle Name:
* Last Name:
Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: 

* Date Signed:

7-27-18

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 30,000.00	\$.00	\$ 30,000.00
2. Land, structures, rights-of-way, appraisals, etc.	\$ 45,000.00	\$.00	\$ 45,000.00
3. Relocation expenses and payments	\$.00	\$.00	\$ 0.00
4. Architectural and engineering fees	\$ 155,000.00	\$.00	\$ 155,000.00
5. Other architectural and engineering fees	\$ 70,000.00	\$.00	\$ 70,000.00
6. Project inspection fees	\$ 93,000.00	\$.00	\$ 93,000.00
7. Site work	\$.00	\$.00	\$ 0.00
8. Demolition and removal	\$.00	\$.00	\$ 0.00
9. Construction	\$ 1,850,000.00	\$.00	\$ 1,850,000.00
10. Equipment	\$.00	\$.00	\$ 0.00
11. Miscellaneous - Interest during Construction	\$ 35,000.00	\$.00	\$ 35,000.00
12. SUBTOTAL (sum of lines 1-11)	\$ 2,278,000.00	\$ 0.00	\$ 2,278,000.00
13. Contingencies	\$ 180,000.00	\$.00	\$ 180,000.00
14. SUBTOTAL	\$ 2,458,000.00	\$ 0.00	\$ 2,458,000.00
15. Project (program) income	\$.00	\$.00	\$ 0.00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 2,458,000.00	\$ 0.00	\$ 2,458,000.00

FEDERAL FUNDING

17. Federal assistance requested, calculate as follows: (67.94%) USDA-RD Loan = \$1,670,000 / (28.48%) USDA-RD Grant = \$700,000
 (Consult Federal agency for Federal percentage share.) Enter eligible costs from line 16c Multiply X 100.00 %
 Enter the resulting Federal share. \$ 2,458,000.00

Applicant portion of \$88,000 makes Federal share = \$2,370,000

COST ESTIMATE

SME # 15030
July 20, 2018

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Qty</u>	<u>Cost</u>	<u>Extension</u>
	SYSTEM WATER LOSS IMPROVEMENTS				
1	Stream crossing replacements (6") (Horizontal direct drill method w/8" O.D. HDPE, DR9, IPS (2 each)	LF	300	\$ 160.00	\$ 48,000.00
2	Stream crossing replacements (4" & 3") (Horizontal direct drill method w/6" O.D. HDPE, DR9, IPS) (3 each)	LF	300	\$ 130.00	\$ 39,000.00
3	Leak detection assemblies @ Stream Crossings	EA	5	\$ 1,400.00	\$ 7,000.00
4	System Master Meters (3", 4", 6")	EA	8	\$ 8,000.00	\$ 64,000.00
5	System GPS	LS	1	\$ 30,000.00	\$ 30,000.00
6	Tie-ins (6" and 4")	EA	10	\$ 1,500.00	\$ 15,000.00
7	6" Gate Valves	EA	4	\$ 1,500.00	\$ 6,000.00
8	4" Gate Valves	EA	4	\$ 1,250.00	\$ 5,000.00
9	3" Gate Valves	EA	2	\$ 1,000.00	\$ 2,000.00
10	Misc. Valves by District (water loss control)	LS	1	\$ 30,000.00	\$ 30,000.00
11	3/4" Service Line Replacements (including locating and tie-ins) (750 each)	LF	40,000	\$ 10.00	\$ 400,000.00
				Subtotal A	\$ 646,000.00
	OTHER SYSTEM IMPROVEMENTS				
12	Pump Station Upgrades a) Cunningham Hill & Fuller Ridge (building, 2 pumps, VFD's, piping)	EA	2	\$50,000	\$ 100,000.00
	b) U.S. Rt. 60, Quarry Branch, The Point (add VFD's to each pump)	EA	3	\$ 15,000.00	\$ 45,000.00
13	Pump Station Relocation (NEW) - Corey Branch	EA	1	\$ 100,000.00	\$ 100,000.00
	TOTAL ALL PUMP STATIONS				\$ 245,000.00
14	Tank Painting & Repairs a) Cunningham Hill (75,000 gallons) b) Quarry Branch (75,000) c) Fuller Ridge (75,000) d) Rush Hill (137,000) e) Bowling Drive (216,000 gallons) f) Buchanan (106,000) g) U.S. 23 (300,000) gallons - steel h) U.S. 23 (360,000 gallons glass lined tank (misc. repairs & caulking) i) Arland Delong (100,000 glass lined) j) Donithon (102,000 gallons)	EA	1	\$ 75,000.00	\$ 75,000.00
		EA	1	\$ 70,000.00	\$ 70,000.00
		EA	1	\$ 60,000.00	\$ 60,000.00
		EA	1	\$ 100,000.00	\$ 100,000.00
		EA	1	\$ 140,000.00	\$ 140,000.00
		EA	1	\$ 100,000.00	\$ 100,000.00
		EA	1	\$ 149,000.00	\$ 149,000.00
		EA	1	\$ 15,000.00	\$ 15,000.00
		EA	1	0.00	0.00
		EA	1	0.00	0.00
	TOTAL ALL TANKS				\$ 709,000.00
15	Building (Office) (2,200 S.F.)	LS	1	\$ 225,000.00	\$ 225,000.00
16	Site Development (grading, parking, paving sewers, water, etc.)	LS	1	\$ 25,000.00	\$ 25,000.00
				Subtotal B	\$ 1,204,000.00
	Total of both subtotals A & B above				\$ 1,850,000.00
	10% (+/-) contingency				\$ 180,000.00
	Total Estimated Construction Cost				\$ 2,030,000.00

COST ESTIMATE

SME # 15030
July 20, 2018

Total Estimated Construction Cost				\$ 2,030,000.00
<u>Engineering Fees (RD Fees)</u>				
Basic (7.63%)				\$ 155,000.00
Resident Inspection (4.58%)				\$ 93,000.00
Additional Engineering (Permits [\$3,000], easements [\$3,000], surveying [\$3,000], geotechnical for building [\$4,000], Grant Administration [\$20,000], System mapping (water loss control) [\$30,000], Other [\$7,000])				\$ 70,000.00
Land Acquisition				\$ 45,000.00
Legal and Administrative				\$ 30,000.00
Interest During Construction				\$ 35,000.00
Total Estimated Project Cost				\$ 2,458,000.00
<u>PROPOSED FUNDING</u>				
USDA - RURAL DEVELOPMENT GRANT (28.48%)				\$ 700,000.00
USDA - RURAL DEVELOPMENT LOAN (67.94%)				\$ 1,670,000.00
Applicant (BSWD) - (3.58%)				\$ 88,000.00
Total Estimated Project Cost				\$ 2,458,000.00

ATTACHMENT 1-B

Preliminary Engineering Report

BIG SANDY WATER DISTRICT

PHASE V

WATER SYSTEM IMPROVEMENTS

Boyd, Lawrence and Carter Counties, Kentucky



September 2018

SME Project Code: 15030



SISLER-MAGGARD ENGINEERING, PLLC

220 EAST REYNOLDS ROAD, SUITE A3

LEXINGTON, KY 40517

(859) 271-2978

Fax (859) 271-5670

Email: sme@sislermaggard.com

BIG SANDY WATER DISTRICT

Paul Thomas	Commissioner - Chairman
Charles Shockey	Commissioner - Treasurer
Bill Hardin	Commissioner
David Salisbury	Commissioner - Secretary
Larry Shockey	Commissioner
Teresa Brown	Office Manager

**PRELIMINARY ENGINEERING REPORT
BIG SAND WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

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**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

EXECUTIVE SUMMARY

FINDINGS

Over the last 5-10 years the Big Sandy Water District has spent an immeasurable amount of time and resources of management, staff and personnel working to resolve their system water losses.

These efforts have included monthly discussions, directions and actions by the Board at their Board meetings. They have an ongoing Agenda item titled "Water Losses". Personnel efforts have included water line walking at night, bringing in KRWA circuit rider, contracting for installation of some isolation valves, etc.

This Phase V project is an enhancement and continuation of those efforts.

This project will be directed at trying to fix some items that have been found to be regular problems, such as replacing some stream crossings with HDD installation of HDPE piping with leak detection; installing valves and in line meters to isolate leaks with this project (District has purchased several valves and appurtenances for their own installation). Also will purchase and develop GPS system to allow/assist in readily locating valves, blowoffs, etc. so that system can be monitored and shut down to CONSERVE water when leaks occur,

The Repair and painting of (8) eight water storage tanks will resolve some small leaks, but is primarily an effort to clean and remove rusting of tanks to assist in maintaining chlorine residual/disinfection for sanitary reasons.

The District discovered over 10 years ago that the ¾" Blue Max Service lines previously installed with extension contracts has failed in many, many instances. The District has spent much time and resources to replace these on a continual basis. On this project approximately 750 residential service lines will be replaced thru out the District.

The replacement of the existing inadequate water office is needed for better efficient operation and will provide public with better access to meetings and include a drive up window.

RECOMMENDATIONS

Based on studies, findings and conclusions and in accordance with other pertinent information contained in this report, it is recommended that the Big Sandy Water District take the following steps:

- A) Review this report, then direct the Engineer, upon notification of RD, to immediately complete necessary documentation to RD for further processing for Loan and Grant

funds to construct the improvements outlined in this Report.

- B) Direct the Engineer to complete all necessary plans, specifications and contract documents to receive approvals and permission to advertise this project for bids.
- C) Upon completion of the above and receipt of approvals, initiate actions to acquire required permits, fee simple titles and right of way easements for construction areas.
- D) Upon favorable review of RD, make necessary arrangements, through local and bond counsel, to proceed with the Project.

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 1 - PROJECT PLANNING

- a. Location – The project areas are as follows:

In general, the Big Sandy Water District (BSWD) serves the southern half of Boyd County south of I-64 to the Boyd-Lawrence County line. The limits of the District boundary in Boyd County in an east-west direction extend from the Big Sandy River west to the Boyd-Carter County line.

In 1982, the Big Sandy Water District annexed small areas in the south-western end of Boyd County along State Route 854 and a small area in northern-eastern Carter County, both formerly within the Boundary limits of the then dissolved Leon-Hitchens Water District.

In the late 1990's the USDA-RD State office unofficially requested that the BSWD take over the Lawrence County Water District. In 2000 under the auspices of the Kentucky Public Service Commission Case # 99-481, the BSWD took over the ownership and operation of the Lawrence County Water District. This acquisition means that the BSWD serves 90% of rural Lawrence County.

The exception was an area in western Lawrence County that is served by the Rattlesnake Ridge Water District along S.R. 32 near the Elliott County line and an area in Northern Lawrence County around S.R. 201 at Blaine, served by Paintsville Utilities.

After acquisition of the Lawrence County Water District, the BSWD made an expansion in south and southwestern Lawrence County. The project included U.S. 23 north of Louisa to Johnson County line at Lowmansville; S.R. 1760 from S.R. 32 thru Charley to U.S. 23; S.R. 581 from U.S. 23 to Johnson County line at River, Kentucky. This allowed for (2) two backup connections to the Paintsville Utility System.

Project roads for the NEW Service line replacements are listed in the Appendix.

Tanks for repair and painting are also listed in the Appendix.

Water Booster Pump Stations for Upgrade and/or replacement are also listed in the Appendix.

b) Environmental Resources Present – All of these sites have been previously disturbed as follows:

1. All (8) Eight Tank sites exist and repairs and painting is on previously built upon sites.
2. The existing Cunningham Hill and Fuller Ridge booster pump stations will be rebuilt in place or on the road right of way.
3. The existing U.S. 60 and The Point Water Booster Pump Stations will have new equipment (VFD's) added in the buildings.
4. The existing Quarry Branch booster pump station will be rebuilt in place.
5. The water service line replacements (old failing Blue Max PVC) will be replaced in the existing disturbed areas.
6. The NEW office building will be built on property adjacent to the existing office building on property that was occupied with an old gas station/general store that has been torn down. The buried gas tanks were removed, and a subsurface clearing certificate came to Big Sandy Water District with the purchase in August 2017.

c) Population Trends – Not applicable since this is rehab project only.

d) Community Engagement – This project will NOT serve any new customers.

A public meeting will be held to inform the public of the proposed water system improvements. The improvements of service line replacements, leak detection facilities, tank repairs and painting, and pump station improvements and the proposed new office building with drive thru window will be discussed. The funding source and ramification to rates, etc. will all be discussed.

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 2 - EXISTING FACILITIES

- a) Location Map – Map & Photos located in Appendix.
- b) History – See Page 1 of this report.

Water Sources – The Big Sandy Water District does not have its own water source or Water Treatment Plant. In approximately 1985 the Big Sandy Water District began operation with purchasing water from the City of Kenova, West Virginia across the Big Sandy River. They now have (6) six Water Purchase Contracts from separate entities as follows: City of Ashland; City of Kenova, WV; City of Louisa; Rattlesnake Ridge Water District; Cannonsburg Water District (backup only) and City of Paintsville Utilities (backup only). The Big Sandy Water District averages 1,150,000 GPD in summer. These agreements have capacity to meet any and all District needs, now and for future.

VIOLATIONS - There have been NO significant system violations in the project areas.

c) Condition of Existing Facilities- Water Mains – The Big Sandy Water District, over the last 10 years, has committed to a program of continual maintenance and upgrade of their distribution/transmission system throughout the (4) four counties. The District leaders have always taken great pride in their Water System.

The existing water transmission and distribution mains are more than adequate in size and condition. However, in the past (5) years, it has become apparent at they have tracked their water losses, and found that there is a significant need to replace multiple stream crossings, replace ALL (old Blue Max PVC) service lines and place multiple valves and meters throughout the system to allow closer control of their losses and allow isolation of breaks/leaks. Also a system wide GPS will help maintenance and controls.

STORAGE

The storage and condition of tanks is as follows:

- | | | |
|---------------------------------------|-----------------|---------------------------|
| 1) U.S. 23 Tank (tank #1) steel | 300,000 gallons | Fair |
| 2) U.S. 23 Tank (tank #2) glass lined | 360,000 gallons | Good, needs minor repairs |

3) Bowling Drive Tank	200,000 gallons	Fair
4) Rush Hill Tank	137,000 gallons	Fair
5) Buchanan Tank	100,000 gallons	Fair
6) Quarry Branch Tank	75,000 gallons	Fair
7) Fullers Ridge Tank	23,500 gallons	Fair
8) Donithon Road Tank	100,000 gallons	Good
9) Arland Delong Tank	100,000 gallons	Good
10) Cunningham Hill Tank	40,000 gallons	Fair
11) Jerry Riffe Ridge Tank (not in use)	37,000 gallons	Fair

TOTAL STORAGE: 1,472,500 gallons

The 10 State Standards (used by the Kentucky Division of Water as basis for regulations) require a minimum amount of above ground storage equal to the average daily usage. The current **average daily usage is 1,150,000 gallons**. Subsequently the current storage of 1,472,500 gallons exceeds the minimum requirements by 28%.

PUMP STATIONS

The following is a listing of water booster pumping stations, including locations and conditions as follows:

1) State Route 538 – 2 @ 700 gpm each	Excellent
2) Whites Creek – 250 gpm each	Good
3) Burnaugh – 200 gpm each	Good
4) US 60 (Coalton) – 200 gpm each	Fair
5) Ced Gap – 150 gpm each	Fair
6) Fullers Ridge – 60 gpm each	Fair
7) Cunningham Hill – 60 gpm each	Poor
8) Quarry Branch – 96 gpm each	Poor
9) Point Section – 100 gpm each	Fair
10) Deephole – 20 gpm each	Good
11) Raven Rock – 40 gpm each	Good

It should be assumed that the existing operating conditions and efficiency is average, purely due to age. The design of the new Quarry Branch booster pump station will have top efficiency design.

d.) Financial Status of any Existing Facilities

The last (3) three annual audits 2015, 2016, 2017 have been furnished to USDA-Rural Development. The current rate schedules for water and sewer are included in the Appendix.

The annual Audits include all O & M costs including current energy costs, capital expenditures and users monthly usage categories. The User breakdowns by categories are completely outlined in the Summary Addendum which is submitted with this Preliminary Engineering Report.

The Audits include existing debts and required reserve accounts.

e.) Water/Energy Audits

There have been NO water or energy audits performed.

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 3 - NEED FOR PROJECT:

Describe the need in the following order of priority:

a) **Health, Sanitation & Security**

There are some health and sanitary situations that are within this project area as it relates to the conditions inside some of the storage tanks. These tanks in this project are in fair physical condition. The interiors have some rusting and could have an effect on sanitary conditions of the water and may cause deterioration of chlorine residuals.

The service line replacements have been a water loss problem for more than 10 years. The Blue Max PVC material has failed many times and continuously leaks.

The pump station rehabs and replacements are needed improvements that will affect efficient operation by upgrades and adding VFD's. However, they are not health or sanitary problems.

The adding of system valves and meters are for the purpose of system operation and controls and assisting in water loss management.

The stream crossing replacements are also for water loss control.

Security

The water storage tanks are secure with fencing, gates and locks. The water booster pump stations are or will be fenced and locked for security.

b) **Aging Infrastructure**

As stated hereinbefore, the District has taken a great deal of care in their water systems over the past 10 years. They have continually worked to eliminate leaks throughout their systems with limited results. This project is primarily about getting a handle on monitoring and controlling their leaks and subsequently water loss.

These improvements will leave very few if any aging deficient water system infrastructure.

There are NO safety concerns.

c) Reasonable Growth

Waterlines – The new water source from Ashland in 2013 included new 5 mile transmission main and new booster pump station on U.S. 23 at Catlettsburg South City limits. Therefore, the system as a whole is in adequate size and condition.

The growth in the project area in the last 5-10 years has been minimal.

Storage

As also stated hereinbefore, the D.O.W. storage requirements are 1 (one) day average usage, which has been stated to be 1,150,000 gallons based on the last three month's usage.

The District currently has 1,472,500 gallons of storage. That exceeds D.O.W. requirements by 322,500 gallons or 28%.

New Customers

As previously discussed, there will be NO new customers for this project.

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 4 – ALTERNATIVES CONSIDERED

This project is a water system upgrade/improvement project. Subsequently it is our belief that there are NO viable alternatives other than DO NOTHING.

Due to the ongoing long term water loss problem of the District, it is apparent that this project is needed.

The new office building could be eliminated. But the condition of the existing 20 year old building (double wide) is not conducive to upgrade or repair. The new building will add drive up window which is not realistic with current building.

Therefore, the selected alternatives are as follows:

Water Service Lines – Replacement

Office Building – Replacement adjacent to existing building

Tanks – Repair and paint

Booster Pump Stations – Upgrade and add VFD's (variable frequency drives) to motors for efficiency.

- a) Design Criteria – The water service lines, tank repairs and booster pump station upgrades will be designed to meet Kentucky Division of Water Regulations and the 10 State Standards.
- b) Map – A schematic layout map and topographic layout are included in Appendix.
- c) Environmental Impacts – The replacement water service lines and replacement/upgrades to water booster pump stations are being constructed in previously disturbed areas.

The generation of residuals and wastes in these areas will be minimal. The water booster pump station sites will be silt fenced to prevent any runoff during construction.

- d) Land Requirements – Waterlines – The replacement water service lines will be on existing easements or KDOT right of way. The pump stations are being repaired and/or replaced in place in previously disturbed areas.

Office building – ½ acre has been acquired adjacent to existing office on site of former gas service station/general store that has been removed.

A KDOT Encroachment Permit will be acquired for construction on KDOT Rights of Way, if necessary.

The proposed water booster pump stations will of necessity be constructed on existing sites.

- e) Potential Construction Problems – We do not anticipate any construction problems.

- f) Sustainability Consideration –

- i. Water and Energy Efficiency – As discussed hereinbefore, the water service line replacement has no alternative (except do nothing) because the project is replacing a deteriorating 20+ year old water service lines to ±750 residences meters.

The water tank repairs and painting are dictated by each individual tank problem and condition.

The upgrade and replacement of the water booster pump station's is on an individual condition basis.

The office building replacement is necessary as the condition of the existing is such that repairs are not practical.

- ii. Green Infrastructure – The water service line construction will be built, then seeded and strawed ASAP to minimize run-off during construction.

The one new water booster pump station (Quarry Branch) and office building will be fenced with sedimentation fences, then seeded and strawed.

- iii. Other – The new office building will be designed and constructed as an energy efficient building.

The operation of booster pump station at Quarry Branch, with more efficient pumps and VFD's is clearly more efficient and cost effective. The addition of VFD's at all the other pump stations will make them all more efficient.

g) Cost Estimates

The Cost Estimates for the project components is located in Appendix under Cost Estimates.

O & M Costs. This project is a basically a rehabilitation project and the goal of all improvements is to lower and control O & M costs.

- i. Waterlines - Replacing all the 750+ leaking Blue Max PVC service lines – Subsequently repairs of breaks and/or leaks will reduce purchased water loss and save the cost of labor and materials for such repairs. Therefore, a significant savings to existing O & M costs will be realized by these water service line replacements to the 750+ residences.
- ii. Leak detection installations – Water loss monitoring.
- iii. Pump Stations - These Pump Stations are over 20 years old and not in good repair.

The Cunningham Hill and Fuller Ridge Stations are in need of extensive repair. These stations will need new buildings, pumps, VFD's and some piping in place.

The U.S. 60, Quarry Branch, and The Point (near Louisa) pump stations will have VFD's added to improve efficiency and save electricity. The new stations will be much more efficient than the existing three pump stations. Therefore, the operational and maintenance savings will be significant.

The Quarry Branch pump station will be relocated and rebuilt to better serve the system and certainly be more efficient.

- iv. Water tanks – The following tanks (standpipes) will be painted and re-caulked inside and out. They have been professionally inspected and are all in the 25-30 year range without painting:

1) Cunningham Hill –	75,000 gallon	Paint
2) Quarry Branch –	75,000 gallon	Paint
3) Fuller Ridge –	75,000 gallon	Paint
4) Rush Hill –	137,000 gallon	Paint
5) Bowling Drive –	216,000 gallon	Paint
6) Buchanan –	106,000 gallon	Paint
7) U.S. 23 (Steel) –	300,000 gallon	Paint
8) U.S. 23 (glass lined) –	360,000 gallon	Caulk & Repairs

These project changes of service line replacements, pump station rehabs and replacement, tank repairs and painting will provide significant savings to Operation and Maintenance for the future.

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 5 - SELECTION OF AN ALTERNATIVE

The selection of alternatives on this project, beyond “DO NOTHING” are really not alternatives. This project is the solution of (5) five direct and specific needs:

(1) Waterlines: Multiple service line replacements – The only real alternative is replacement (in place) of the many failing water service lines. The District has been replacing the failing Blue Max PVC service lines sporadically for 10+ years. However, the job is logically unsurmountable for a SMALL water district to replace ±750 services. However, this work is a must, based on the known water losses.

(2) Water tanks: As previously discussed, the painting and repairs of the tanks is a necessity for the continued integrity of the system and the SANITARY necessities of maintaining chlorine residuals where rusting and leaks exist.

(3) Leak Monitoring Infrastructure: The District has diligently been chasing leaks for 5+ years. To assist in that effort this project will add the following:

- 1) Replace failing stream crossings with horizontal directional drilling of HDPE.
- 2) Adding leak detection assemblies at streams
- 3) Installing Master Meters in distribution system to isolate and determine flow before and after leaks
- 4) Provide system with GPS to allow ready location of all infrastructure such as valves, meters, blowoffs, etc. This will give ready access to items to isolate and confine leaks.
- 5) Install more “isolation” valves throughout system
- 6) District is already purchasing and installing “isolation” valves and will request reimbursement from project.

(4) Pump Stations: The existing pump stations are 20-30 years old and beyond their efficient operation and maintenance life time. We have outlined hereinbefore the necessary repair/replacement work on the pump stations.

(5) Office Building: The existing office building is a 20 year old deteriorating double wide that has electrical problems, insulation problems, rodent infestations, privacy of staff, etc.

The new building will be located on adjacent property that has become available. The old service station/general store property has been acquired by District and cleared in 2017.

The building will be energy efficient and operationally efficient for management staff to be allowed some privacy, more filing space (NOT in attic), conference room space to allow public participation with adequate parking and a drive up window.

a) Life Cycle Cost analysis – A life cycle/present worth cost analysis to evaluate present and future costs for comparison of alternatives is not needed due to the fact that these improvements are dictated by system failures and other alternatives are not viable or reasonable.

b) Non-Monetary Factors

- i. Operator Training – System operators already operate multiple pump stations and water tanks. Subsequently no new training will be required. Of course, the NEW or rehabbed pump station specifications will require the equipment’s supplier to give “specific” training on their VFD’s control panel, etc.
- ii. Design Criteria and Approvals and Permit Requirements – All waterlines and pump stations will be designed in accordance with Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water (Ten State Standards), U.S. Department of Agriculture/Rural Development, and Kentucky Public Service Commission guidelines and their subsequent approvals. Approvals will be also secured from the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water Resources to obtain stream crossing permits where necessary.

Design drawings and Specifications will be submitted for approval by the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water, USDA/Rural Development and the Kentucky Public Service Commission.

- iii. Land of Rights-of-Way – For all lines constructed on private rights-of-way, a construction and permanent easement will be obtained from the property owner prior to constructing the lines. For lines to be constructed on Kentucky state highways or railroads, all necessary encroachment permits will be obtained before proceeding with waterline construction.
- iv. Permit requirements – A Kentucky Department of Transportation Encroachment permit will be required if necessary for any water service line replacement.
- v. Community Objections – It is anticipated that there should be NO community objections since all these project improvements will enhance the users flows and pressures and reduce water loss expenditures for the District which would subsequently affect water rates.
- vi. Greenhouse gas emissions – The only savings would be less electrical usage, since this project will add VFD's to pump stations which make them operate MORE efficiently. Also the new office building will be energy efficient.
- vii. Wetland Relocation – This project will not affect any wetlands.

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 6 – PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

a) Preliminary Project Design

i. Drinking Water –

EXISTING Water Suppliers – The water suppliers for the Big Sandy Water District System comes from the (7) seven sources as follows:

- 1) Ashland Water Works
- 2) City of Kenova, West Virginia
- 3) Louisa Board of Water and Sewer
- 4) Rattlesnake Ridge Water District
- 5) Cannonsburg Water District (Backup Only)
- 6) Paintsville (emergency backup only)
- 7) ~~Martin County Water District (emergency backup only)~~ - Dropped

The Water Purchase contracts are included in the Appendix. The current combined allocation limits far exceed the 1,150,000 MGD average usage.

ii. Storage –

No new storage is needed. However, (8) eight of the existing tanks will have painting and repairs under this project.

iii. Pumping Stations –

No new pump stations are proposed under this project. However, a new replacement pump station will be built at Quarry Branch.

Several (5) other stations will have repairs/rehab work done and VFD's (variable frequency drives) added to increase operation efficiencies and electricity savings.

iv. Distribution Waterlines –

This project replaces approximately 750+ service lines to residences throughout District.

v. Leak Detection –

Water loss is a major problem with the District and gets a lot of their attention. About 50% of this project is to help monitor and control the water losses. See itemization of the proposed actions under previous section and in the Cost Estimate in Appendix.

vi. New Office Building –

The new proposed 3000 S.F. office building, as outlined hereinbefore, will be constructed on ½ acre tract next to the existing office structure which is a 20 year old double wide.

b) Project Schedule – Plans and Specifications – It is anticipated that plans and specifications for water service lines, booster pump station replacements and upgrades, tank repairs and painting, water loss infrastructure and new office building will be submitted for approval to D.O.W. & Housing and Building Construction by Dec 1, 2018. The D.O.W. approval should be available on or before January 15, 2019.

Land Purchase – The office building site has been acquired in 2017. Copy of deed in Appendix.

Waterline easements – There should be none required. The service lines will be on public right-of-ways or existing easements.

Pump Stations and Water Tanks – No easements or deeds are required as work will be done on existing properties.

KDOT Encroachment Permit – NONE NEEDED.

Advertisement for Bids – February 1, 2019

Contract(s) Awards – April 1, 2019

Loan Closing – August 1, 2019

Initiation of Construction – April 15, 2019

Substantial Completion – October 15, 2019

Final Completion – November 15, 2019

Initiation of Operation - October 15, 2019

c) Permit Requirements – There are no construction, discharge or capacity permits required for this type of project.

d) Sustainability Considerations

i) Water and Energy Efficiency - Water reuse and water efficiency are not a consideration in this project. However, replacing the service lines, stream crossings, tank repairs and installing many leak detecting devices and controls will contribute to WATER CONSERVATION.

ii) Green Infrastructure - Energy efficient design will be implemented in the selection of pumps and VFD's for the pump stations, rehabs and/or replacements. The VFD (variable frequency drives) are to be installed in the new pumps and rehab pump stations to conserve electricity.

e) Total Project Cost Estimate (Engineer's Opinion of Probable Cost).

A complete itemized Project and Construction Cost Estimate is included in the Appendix based on the stated period of construction. It includes construction cost, land and right-of-ways, legal and administrative, engineering, construction program management, funds administration, interest, construction contingency, and other costs associated with the proposed project. The construction subtotal is separated out from the non-construction costs.

f) Annual Operating Budget

The Statement of Budget, Income and Equity for 07/01/18 to 06/30/19 (Form RD 442-2) in Appendix is furnished annually to RD as a requirement of existing RD loans. The District has also furnished the last 3 years of Certified Audits thru December 31, 2017. Furthermore, these documents and the Summary Addendum will list and project the following items:

- i) Income
- ii) Annual O&M Costs
- iii) Debt Repayments
- iv) Reserves
 - Debt Service Reserves
 - Short-Lived Asset Reserve
- v) Rate Structures

**PRELIMINARY ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION - 7 CONCLUSIONS AND RECOMMENDATIONS

Based on studies, findings and conclusions and in accordance with other pertinent information contained in this report, it is recommended that the Big Sandy Water District take the following steps:

- A) Review this report, then direct the Engineer, upon notification from USDA – Rural Development, to immediately complete necessary documentation to USDA – Rural Development for further processing for Loan and Grant funds to construct the improvements outlined in this Report.

- B) Direct the Engineer to complete all necessary plans, specifications and contract documents to receive approvals and permission to advertise this project for bids.

- C) Upon completion of the above and receipt of approvals, initiate actions to acquire required permits, fee simple titles and right of way easements as necessary for construction areas.

- D) Upon favorable review of USDA – Rural Development, make necessary arrangements, through local and bond counsel, to proceed with the Project.

APPENDIX A

ESTIMATED CONSTRUCTION

AND

PROJECT COST

COST ESTIMATE

SME # 15030
July 20, 2018

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Qty</u>	<u>Cost</u>	<u>Extension</u>
SYSTEM WATER LOSS IMPROVEMENTS					
1	Stream crossing replacements (6") (Horizontal direct drill method w/8" O.D. HDPE, DR9, IPS (2 each)	LF	300	\$ 160.00	\$ 48,000.00
2	Stream crossing replacements (4" & 3") (Horizontal direct drill method w/6" O.D. HDPE, DR9, IPS) (3 each)	LF	300	\$ 130.00	\$ 39,000.00
3	Leak detection assemblies @ Stream Crossings	EA	5	\$ 1,400.00	\$ 7,000.00
4	System Master Meters (3", 4", 6")	EA	8	\$ 8,000.00	\$ 64,000.00
5	System GPS	LS	1	\$ 30,000.00	\$ 30,000.00
6	Tie-ins (6" and 4")	EA	10	\$ 1,500.00	\$ 15,000.00
7	6" Gate Valves	EA	4	\$ 1,500.00	\$ 6,000.00
8	4" Gate Valves	EA	4	\$ 1,250.00	\$ 5,000.00
9	3" Gate Valves	EA	2	\$ 1,000.00	\$ 2,000.00
10	Misc. Valves by District (water loss control)	LS	1	\$ 30,000.00	\$ 30,000.00
11	3/4" Service Line Replacements (including locating and tie-ins) (750 each)	LF	40,000	\$ 10.00	\$ 400,000.00
				Subtotal A	\$ 646,000.00
OTHER SYSTEM IMPROVEMENTS					
12	Pump Station Upgrades a) Cunningham Hill & Fuller Ridge (building, 2 pumps, VFD's, piping) b) U.S. Rt. 60, The Point, other (add VFD's to each pump)	EA	2	\$50,000	\$ 100,000.00
13	Pump Station Relocation (NEW) - Quarry Branch	EA	1	\$ 100,000.00	\$ 100,000.00
TOTAL ALL PUMP STATIONS					\$ 245,000.00
14	Tank Painting & Repairs a) Cunningham Hill (75,000 gallons) b) Quarry Branch (75,000) c) Fuller Ridge (75,000) d) Rush Hill (137,000) e) Bowling Drive (216,000 gallons) f) Buchanan (106,000) g) U.S. 23 (300,000) gallons - steel h) U.S. 23 (360,000 gallons glass lined tank (misc. repairs & caulking) i) Arland DeLong (100,000 glass lined) j) Donithon (102,000 gallons)	EA	1	\$ 75,000.00	\$ 75,000.00
		EA	1	\$ 70,000.00	\$ 70,000.00
		EA	1	\$ 60,000.00	\$ 60,000.00
		EA	1	\$ 100,000.00	\$ 100,000.00
		EA	1	\$ 140,000.00	\$ 140,000.00
		EA	1	\$ 100,000.00	\$ 100,000.00
		EA	1	\$ 149,000.00	\$ 149,000.00
		EA	1	\$ 15,000.00	\$ 15,000.00
		EA	1	0.00	0.00
		EA	1	0.00	0.00
TOTAL ALL TANKS					\$ 709,000.00
15	Building (Office) (2,200 S.F.)	LS	1	\$ 225,000.00	\$ 225,000.00
16	Site Development (grading, parking, paving sewers, water, etc.)	LS	1	\$ 25,000.00	\$ 25,000.00
				Subtotal B	\$ 1,204,000.00
Total of both subtotals A & B above					\$ 1,850,000.00
10% (+/-) contingency					\$ 180,000.00
Total Estimated Construction Cost					\$ 2,030,000.00

APPENDIX B

FUNDING/FINANCIAL SECTION

FUNDING BREAKDOWN

STATEMENT OF BUDGET, INCOME & EQUITY (RD442-2)

OPERATING BUDGET (RD442-7)

AMORTIZATION SCHEDULE

RD LOAN

EXISTING RATE SCHEDULE

PROPOSED RATE SCHEDULE

FINANCIAL

The Big Sandy Water District (BSWD) system covers the western and southern portion of Boyd County, the small eastern portion of Carter County and nearly all of rural-southern, eastern and western Lawrence County that is not covered by the City of Louisa. The primary rural waterline by City of Louisa is in the Fallsburg area along S.R. 3 and west of town in Busseyville/Yatesville Lake area along S.R. 32. As stated in the "existing facilities" portion of this report the BSWD took over the Lawrence County Water District in 2001 at the request of USDA - Rural Development. The Lawrence County Water District customers were approved by KY PSC (Public Service Commission) under the BSWD rate structure.

The water purchase rates from the various water companies that BSWD purchases water from, vary significantly and have continued to grow frequently (at least every year) for the past few years. In Summer 2018 the rates were as follows:

City of Kenova	\$2.55/1000 gallons
City of Ashland	\$2.19/1000 gallons
City of Louisa	\$3.66/1000 gallons
Cannonsburg Water District	\$4.42/1000 gallons
Rattlesnake Ridge Water District	\$3.82/1000 gallons

The City of Ashland purchase agreement of 2013 had agreed to hold their published bulk rate less .75¢/1000 gallons (which is currently \$2.94 - .75¢ = \$2.19/1000 gallons) for 5 years until 2018 and then it would raise to their bulk rate that they charge Cannonsburg Water District as established by current Ashland Rate Ordinance. That rate is anticipated to be around \$2.94/1000 gallons in 2019.

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UNITED STATES DEPARTMENT OF AGRICULTURE
STATEMENT OF BUDGET, INCOME AND EQUITY

Schedule I

Name Big Sandy Water District	Address 18200 State Route 3 Catlettsburg KY 41129
--------------------------------------	---

(1) OPERATING INCOME	PRIOR YEAR Actual (2)	ANNUAL BUDGET		For the _____ Months Ended _____		
		BEG 01/01/17	END 12/13/17	CURRENT YEAR		Actual YTD (Over) Under Budget Col. 3 - 5 = 6 (6)
				Actual Data		
				Current Quarter (4)	Year To Date (5)	
1. Customers		2,775,200				0
2. Late Charges		58,500				0
3. Other		32,500				0
4.						0
5. Miscellaneous						0
6. Less: Allowances and Deductions						0
7. Total Operating Income (Add lines 1 through 6)	0	2,866,200		0	0	0
OPERATING EXPENSES						
8. Salaries		544,000				0
9. Purchased Water		1,100,000				0
10. Power		97,000				0
11. Insurance		23,300				0
12. Repairs & Supplies		143,000				0
13. Other		173,800				0
14. Other-Taxes		36,200				0
15. Interest RD, KRWF		152,000				0
16. Depreciation		400,00				0
17. Total Operating Expense (Add Lines 8 through 16)	0	2,669,300		0	0	0
18. NET OPERATING INCOME (LOSS) (Line 7 less 17)	0	196,900		0	0	0
NONOPERATING INCOME						
19. Interest		850				0
20.						0
21. Total Nonoperating Income (Add 19 and 20)	0	850		0	0	0
22. NET INCOME (LOSS) (Add lines 18 and 21)	0	197,750		0	0	0
23. Equity Beginning of Period		25,000				0
24.						0
25.						0
26. Equity End of Period (Add lines 22 through 25)	0	222,750		0	0	0

Budget and Annual Report Approved by Governing Body	Quarterly Reports Certified Correct
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Secretary	Date	Appropriate Official	Date
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According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0015. The time required to complete this information collection is estimated to average 2-1.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

SUPPLEMENTAL DATA

The Following Data Should Be Supplied Where Applicable

Circle One

1. ALL BORROWERS

- a. Are deposited funds in institutions insured by the Federal Government? Yes No
- b. Are you exempt from Federal Income Tax? Yes No
- c. Are Local, State and Federal Taxes paid current? Yes No
- d. Is corporate status in good standing with State? Yes No

e. List kinds and amounts of insurance and fidelity bond: Complete Only when submitting annual budget information:

<u>Insurance Coverage and Policy Number</u>	<u>Insurance Company and Address</u>	<u>Amount of Coverage</u>	<u>Expiration Date of Policy</u>
Property Insurance Policy # <u>5190512</u>	<u>Nelson Insurance Company</u> <u>200 Envoy Cir Louisville</u>	<u>as per statement</u> <u>on file</u>	<u>07/01/17</u>
Liability Policy # <u>"</u>	<u>"</u>	<u>2,000,00</u>	<u>07/07/17</u>
Fidelity Policy # <u>"</u>	<u>"</u>	<u>250,00</u>	<u>07/-1/17</u>

2. RECREATION AND GRAZING ASSOCIATION BORROWERS ONLY

Current Quarter Year to Date

a. Number of Members

--	--

3. WATER AND/OR SEWER UTILITY BORROWERS ONLY

- a. Water purchased or produced (CU FT - GAL)
- b. Water sold (CU FT - GAL)
- c. Treated waste (CU FT - GAL)
- d. Number of users - water
- e. Number of users - sewer

<u>31,741,900</u>	<u>380,901,600</u>
<u>25,568,600</u>	<u>296,825,600</u>
<u>gal.</u>	<u>gal.</u>
<u>4768</u>	

4. OTHER UTILITIES

- a. Number of users
- b. Product purchased
- c. Product sold

5. HEALTH CARE BORROWERS ONLY

- a. Number of beds
- b. Patient days of care
- c. Percentage of occupancy
- d. Number of outpatient visits

<u>-2147483648 %</u>	<u>-2147483648 %</u>

6. DISTRIBUTION OF ALL CASH AND INVESTMENTS*

Indicate balances in the following accounts:

	<u>Construction</u>	<u>Revenue</u>	<u>Debt Service</u>	<u>Operation & Maintenance</u>	<u>Reserve</u>	<u>All Others</u>	<u>Grand Total</u>
Cash Savings and Investments	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ 0
	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ 0
Total	\$ 0	\$ 0150,000	\$ 0155,000	\$ 0 2,500	\$ 0 198,120	\$ 0 26,297	\$ 0 531,917

7. AGE ACCOUNTS RECEIVABLE AS FOLLOWS:

	<u>Days</u>				<u>Total</u>
	<u>0-30</u>	<u>31-60</u>	<u>61-90</u>	<u>91 and Older</u>	
Dollar Values	\$ <u>35,929</u>	\$ <u>6,739</u>	\$ <u>3,675</u>	\$ <u>12,283</u>	\$ <u>58,626</u>
Number of Accounts	_____	_____	_____	_____	0

*Totals must agree with those on Balance Sheet.

PROJECTED CASH FLOW

For the Year BEG. 01/01/17 END. 12/31/17
(same as schedule 1 column 3)

A. Line 22 from Schedule 1, Column 3 NET INCOME (LOSS) \$ 0 197,750

Add

B. Items in Operations not Requiring Cash:

1. Depreciation (line 16 schedule 1) 0 400,000

2. Others: _____

C. Cash Provided From:

1. Proceeds from Agency loan/grant

2. Proceeds from others

3. Increase (Decrease) in Accounts Payable, Accruals and other Current Liabilities

4. Decrease (Increase) in Accounts Receivable, Inventories and

Other Current Assets (Exclude cash)

5. Other: _____

6. _____ 597,750

D. Total all A, B and C Items \$ 0

E. Less: Cash Extended for:

1. All Construction, Equipment and New Capital Items (loan & grant funds)

2. Replacement and Additions to Existing Property, Plant and Equipment

3. Principal Payment Agency Loan 72,000

4. Principal Payment Other Loans 118,833

5. Other: _____

6. Total E 1 through 5 \$ 0 190,833

Add

F. Beginning Cash Balances 125,000

G. Ending Cash Balances (Total of D Minus E 6 Plus F) \$ 0 531,917

Item G Cash Balances Composed of:

Construction Account \$ _____

Revenue Account 150,000

Debt Payment Account 155,000

O&M Account 2,500

Reserve Account 198,120

Funded Depreciation Account

Others: _____ 26,297

Total - Agrees with Item G \$ 531,917

(ATTACHMENT 4)
(FOR CF & RUS Borrowers)

(This form may be used in lieu of "Supplemental Data," Schedule 1, Page 2, of Form RD 442-2, to provide evidence of insurance and bond coverage.)

I certify that the insurance and bond coverage shown below is currently in effect and that copies of the insurance policies are on file with our office.

_____ Date

_____ President/Chairperson/Mayor/Secretary/Clerk

EVIDENCE OF INSURANCE

Liability Insurance:

Policy #	Insurance Co. & Address	Amount of Coverage	Expiration Date
5190512	Nelson Insurance Company 2000 Envoy Cir Louisville	2,000,000	07/01/17

Workman's Compensation:

Policy #	Insurance Co. & Address	Amount of Coverage	Expiration Date
376169	KEMI 250 E Main St Suite 900 Lexington	1,000,000	07/01/17

Floodplain Insurance:

Policy #	Insurance Co. & Address	Amount of Coverage	Expiration Date

Property Insurance:

Property Description	Policy #	Insurance Co. & Address	Amount of Coverage	Expiration Date
as per statement on file	5190512	Nelson Insurance Co 200 Envoy Cir Louisville	as per statement on file	07/01/17

Fidelity Bond Coverage:

Position Bonded	Policy #	Insurance Co. & Address	Amount of Coverage	Expiration Date
	5190512	Nelson Insurance Co 200 Envoy Cir Louisville	\$250,000	07/01/17

Name Big Sandy Water District		Address 18200 State Route 3		Catlettsburg	
Applicant Fiscal Year From 01/01/18 To 12/31/18		County Boyd		State (Including ZIP Code) Kentucky, 4112	
	20 18 (1)	20 19 (2)	20 20 (3)	20 21 (4)	First Full Year (5)
OPERATING INCOME					
1. Customers	\$2,731,700.00	\$2,813,651.00	\$2,898,061.00	\$2,985,002.00	\$2,813,651.00
2. Late Charges	\$60,400.00	\$61,246.00	\$62,103.00	\$62,972.00	\$61,246.00
3. Other	\$33,400.00	\$33,866.00	\$34,340.00	\$34,821.00	\$33,866.00
4. _____					
5. Miscellaneous					
6. Less: Allowances and Deductions	()	()	()	()	()
7. Total Operating Income (Add Lines 1 through 6)	\$2,825,500.00	\$2,908,763.00	\$2,994,504.00	\$3,082,795.00	\$2,908,763.00
OPERATING EXPENSES					
8. Salaries	\$530,600.00	\$610,190.00	\$671,209.00	\$704,769.00	\$610,190.00
9. Purchased Water	\$1,003,000.00	\$1,053,150.00	\$1,105,808.00	\$1,161,098.00	\$1,053,150.00
10. Power	\$96,000.00	\$97,920.00	\$99,878.00	\$101,876.00	\$97,920.00
11. Insurance	\$24,700.00	\$25,194.00	\$25,698.00	\$26,212.00	\$25,194.00
12. Repairs & Supplies	\$220,700.00	\$231,735.00	\$243,322.00	\$255,488.00	\$231,735.00
13. Other	\$186,400.00	\$190,128.00	\$193,931.00	\$197,809.00	\$190,128.00
14. Other - Taxes	\$28,000.00	\$28,560.00	\$29,131.00	\$29,714.00	\$28,560.00
15. Interest (RD)	\$144,000.00	\$183,746.00	\$183,746.00	\$186,746.00	\$183,746.00
16. Depreciation	\$400,000.00	\$400,000.00	\$400,000.00	\$400,000.00	\$400,000.00
17. Total Operating Expense (Add lines 8 through 16)	\$2,633,400.00	\$2,820,623.00	\$2,952,723.00	\$3,063,712.00	\$2,820,623.00
18. NET OPERATING INCOME (LOSS) (Line 7 less 17)	\$192,100.00	\$88,140.00	\$41,781.00	\$19,083.00	\$88,140.00
NONOPERATING INCOME					
19. Interest	\$1,100.00	\$1,300.00	\$1,400.00	\$1,500.00	\$1,300.00
20. Equity	\$25,000.00	\$25,500.00	\$26,010.00	\$26,530.00	\$25,500.00
21. Total Nonoperating Income (Add Lines 19 and 20)	\$26,100.00	\$26,800.00	\$27,410.00	\$28,030.00	\$26,800.00
22. NET INCOME (LOSS) (Add Lines 18 and 21) (Transfer to Line A Schedule 2)	\$218,200.00	\$114,940.00	\$69,191.00	\$47,113.00	\$114,940.00

Budget and Projected Cash Flow Approved by Governing Body

Attest: _____
Secretary Date

Appropriate Official Date

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0015 and 0572-0137. The time required to complete this information collection is estimated to average 5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

PROJECTED CASH FLOW

	20 18	20 19	20 20	20 21	First Full Year
A. Line 22 from Schedule 1 Income (Loss)	\$218,200	\$114,940	\$69,191	\$47,113	\$114,940
<i>Add</i>					
B. Items in Operations not Requiring Cash:					
1. Depreciation (Line 16, Schedule 1)	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
2. Others: _____					
C. Cash Provided from:					
1. Proceeds from RD loan/grant					
2. Proceeds from others					
3. Increase (Decrease) in Accounts Payable, Accruals and other Current Liabilities					
4. Decrease (Increase) in Accounts Receivable, inventories and Other Current Assets (Exclude Cash)					
5. Other: _____					
6. _____					
D. Total all A, B and C Items	\$618,200	\$514,940	\$469,191	\$447,113	\$514,940
E. Less: Cash Expended for:					
1. All Construction, Equipment and New Capital Items (Loan and grant funds)					
2. Replacement and Additions to Existing Property, Plant and Equipment					
3. Principal Payment RD Loan	\$75,000				
4. Principal Payment Other Loans	\$122,833				
5. Other: _____					
6. Total E 1 through 5	\$197,833	\$0	\$0	\$0	\$0
<i>Add</i>					
F. Beginning Cash Balances	\$125,000				
G. Ending Cash Balances (Total of D minus E 6 plus F)	\$545,367	\$514,940	\$469,191	\$447,113	\$514,940
Item G Cash Balances Composed of:					
Construction Account					
Revenue Account	\$100,000				
Debt Payment Account	\$175,000				
O&M Account	\$2,500				
Reserve Account	\$210,000				
Funded Depreciation Account					
Others: _____	\$32,867				
Equity	\$25,000				
Total - Agrees with Item G	\$545,367	\$0	\$0	\$0	\$0

Big Sandy Water District						
Loan - RUS		TABLE DATA				
Loan amount:	\$1,670,000.00	Table starts at date: or at payment number: 1				
Ann. interest rate:	2.380%					
Term in years:	40					
Payments / year:	1					
First payment due:	1/1/2021					
		Payment:	\$65,189.10			
Plus 10% Cover	\$6,518.91	No.	Payment Date	Beginning Balance	Interest	
Total Annual Payment	\$71,708.00	1	1/1/2021	1,670,000.00	39,746.00	
		2	1/1/2022	1,644,556.90	39,140.45	
		3	1/1/2023	1,618,508.26	38,520.50	
		4	1/1/2024	1,591,839.66	37,885.78	
		5	1/1/2025	1,564,536.35	37,235.97	
Use payment of:	\$65,189.10	Beginning balance at payment 1:			1,670,000.00	
payment in table: 1		Cumulative interest prior to payment 1:			0.00	
Table						
No.	Payment Date	Beginning Balance	Interest	Principal	Ending Balance	Cumulative Interest
1	1/1/2021	1,670,000.00	39,746.00	25,443.10	1,644,556.90	39,746.00
2	1/1/2022	1,644,556.90	39,140.45	26,048.64	1,618,508.26	78,886.45
3	1/1/2023	1,618,508.26	38,520.50	26,668.60	1,591,839.66	117,406.95
4	1/1/2024	1,591,839.66	37,885.78	27,303.31	1,564,536.35	155,292.74
5	1/1/2025	1,564,536.35	37,235.97	27,953.13	1,536,583.22	192,528.70
6	1/1/2026	1,536,583.22	36,570.68	28,618.41	1,507,964.81	229,099.38
7	1/1/2027	1,507,964.81	35,889.56	29,299.53	1,478,665.28	264,988.94
8	1/1/2028	1,478,665.28	35,192.23	29,996.86	1,448,668.41	300,181.18
9	1/1/2029	1,448,668.41	34,478.31	30,710.79	1,417,957.63	334,659.49
10	1/1/2030	1,417,957.63	33,747.39	31,441.70	1,386,515.92	368,406.88
11	1/1/2031	1,386,515.92	32,999.08	32,190.02	1,354,325.91	401,405.96
12	1/1/2032	1,354,325.91	32,232.96	32,956.14	1,321,369.77	433,638.91
13	1/1/2033	1,321,369.77	31,448.60	33,740.49	1,287,629.27	465,087.51
14	1/1/2034	1,287,629.27	30,645.58	34,543.52	1,253,085.75	495,733.09
15	1/1/2035	1,253,085.75	29,823.44	35,365.65	1,217,720.10	525,556.53
16	1/1/2036	1,217,720.10	28,981.74	36,207.36	1,181,512.74	554,538.27
17	1/1/2037	1,181,512.74	28,120.00	37,069.09	1,144,443.65	582,658.27
18	1/1/2038	1,144,443.65	27,237.76	37,951.34	1,106,492.31	609,896.03
19	1/1/2039	1,106,492.31	26,334.52	38,854.58	1,067,637.74	636,230.55
20	1/1/2040	1,067,637.74	25,409.78	39,779.32	1,027,858.42	661,640.33
21	1/1/2041	1,027,858.42	24,463.03	40,726.06	987,132.35	686,103.36
22	1/1/2042	987,132.35	23,493.75	41,695.35	945,437.01	709,597.11
23	1/1/2043	945,437.01	22,501.40	42,687.69	902,749.31	732,098.51
24	1/1/2044	902,749.31	21,485.43	43,703.66	859,045.65	753,583.94
25	1/1/2045	859,045.65	20,445.29	44,743.81	814,301.84	774,029.23
26	1/1/2046	814,301.84	19,380.38	45,808.71	768,493.13	793,409.61
27	1/1/2047	768,493.13	18,290.14	46,898.96	721,594.17	811,699.75
28	1/1/2048	721,594.17	17,173.94	48,015.15	673,579.02	828,873.69
29	1/1/2049	673,579.02	16,031.18	49,157.91	624,421.10	844,904.87
30	1/1/2050	624,421.10	14,861.22	50,327.87	574,093.23	859,766.09
31	1/1/2051	574,093.23	13,663.42	51,525.68	522,567.55	873,429.51
32	1/1/2052	522,567.55	12,437.11	52,751.99	469,815.57	885,866.62
33	1/1/2053	469,815.57	11,181.61	54,007.48	415,808.08	897,048.23
34	1/1/2054	415,808.08	9,896.23	55,292.86	360,515.22	906,944.46
35	1/1/2055	360,515.22	8,580.26	56,608.83	303,906.39	915,524.72
36	1/1/2056	303,906.39	7,232.97	57,956.12	245,950.26	922,757.70
37	1/1/2057	245,950.26	5,853.62	59,335.48	186,614.78	928,611.31
38	1/1/2058	186,614.78	4,441.43	60,747.66	125,867.12	933,052.74
39	1/1/2059	125,867.12	2,995.64	62,193.46	63,673.66	936,048.38
40	1/1/2060	63,673.66	1,515.43	63,673.66	0.00	937,563.81

EXISTING

15030

BIG SANDY WATER DISTRICT

(Name of Utility)

FOR	DIVISION 1	
P.S.C. KY. NO.		1
30th Revised	SHEET NO.	1
CANCELLING P.S.C. KY. NO.		1
29th Revised	SHEET NO.	1

Division 1 Monthly Water Rates (Original Big Sandy Water District Area)

5/8" x 3/4" Meter		
First	1,000 gallons	\$17.02 Minimum Bill
Next	9,000 gallons	8.67 per 1,000 gallons
Next	10,000 gallons	6.07 per 1,000 gallons
Next	20,000 gallons	5.65 per 1,000 gallons
Over	40,000 gallons	5.42 per 1,000 gallons
1" Meter		
First	10,000 gallons	\$94.97 Minimum Bill
Next	10,000 gallons	6.07 per 1,000 gallons
Next	20,000 gallons	5.65 per 1,000 gallons
Over	40,000 gallons	5.42 per 1,000 gallons
1 1/2" Meter		
First	20,000 gallons	\$155.67 Minimum Bill
Next	20,000 gallons	5.65 per 1,000 gallons
Over	40,000 gallons	5.42 per 1,000 gallons
2" Meter		
First	40,000 gallons	\$266.67 Minimum Bill
Over	40,000 gallons	5.42 per 1,000 gallons
3" Meter		
First	100,000 gallons	\$593.67 Minimum Bill
Over	100,000 gallons	5.42 per 1,000 gallons
4" Meter		
First	200,000 gallons	\$1,135.67 Minimum Bill
Over	200,000 gallons	5.42 per 1,000 gallons
Wholesale Water Rate		
Cannonsburg Water District		\$5.12 per 1,000 gallons
Rates based on monthly consumption and calculated per 100 gallons		

Date of Issue 1/13/2017
Month / Date / Year

Date Effective 1/1/2017
Month / Date / Year

Issued By Paul E. Thomas
Signature of Officer

Title Chairman
BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. 2016-00423 DATED 01/04/17

KENTUCKY PUBLIC SERVICE COMMISSION
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>
EFFECTIVE 1/1/2017 PURSUANT TO 807 KAR 5.011 SECTION 9(1)

BIG SANDY WATER DISTRICT
(Name of Utility)

FOR	DIVISION 2
P.S.C. KY. NO.	1
28th Revised	SHEET NO. 2
CANCELLING P.S.C. KY. NO.	1
27th Revised	SHEET NO. 2

Division 2 Monthly Water Rates (Former Overland Development Area)

First	2,000 gallons	\$25.48	Minimum Bill
Next	8,000 gallons	10.01	per 1,000 gallons
Next	20,000 gallons	8.23	per 1,000 gallons
Next	20,000 gallons	7.29	per 1,000 gallons
Over	50,000 gallons	6.39	per 1,000 gallons

Date of Issue 1/13/2017
Month / Date / Year

Date Effective 1/1/2017
Month / Date / Year

Issued By *Paul E. Thomas*
Signature of Officer

Title Chairman

BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. 2016-00423 DATED 01/04/17

KENTUCKY PUBLIC SERVICE COMMISSION
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>
EFFECTIVE 1/1/2017 PURSUANT TO 007 KAR 5.011 SECTION 5 (1)

PROPOSED

A. Recommended Rate Schedule with RUS Grant:

Meter Size 5/8"

First 1,000 Gallons @ \$ 18.00 *Minimum.*
Next 9,000 Gallons @ \$ 9.10 *per 1,000 Gallons.*
Next 10,000 Gallons @ \$ 6.37 *per 1,000 Gallons.*
Next 20,000 Gallons @ \$ 5.93 *per 1,000 Gallons.*
All Over 40,000 Gallons @ \$ 5.69 *per 1,000 Gallons*

Meter Size 1":

First 10,000 Gallons @ \$ 99.90 *Minimum.*
Next 10,000 Gallons @ \$ 6.37 *per 1,000 Gallons.*
Next 20,000 Gallons @ \$ 5.93 *per 1,000 Gallons.*
ALL OVER 40,000 Gallons @ \$ 5.69 *per 1,000 Gallons.*

Meter Size 1 1/2":

First 20,000 Gallons @ \$ 166.27 *Minimum.*
Next 20,000 Gallons @ \$ 5.93 *per 1,000 Gallons.*
ALL OVER 40,000 Gallons @ \$ 5.69 *per 1,000 Gallons.*

Meter Size 2":

First 40,000 Gallons @ \$ 284.87 *Minimum.*
ALL OVER 40,000 Gallons @ \$ 5.69 *per 1,000 Gallons.*

Meter Size 3":

First 100,000 Gallons @ \$ 626.27 *Minimum.*
ALL OVER 100,000 Gallons @ \$ 5.69 *per 1,000 Gallons.*

PROPOSED

Meter Size 4":

First 200,000 Gallons @ \$ 1,195.27 Minimum.

ALL OVER 200,000 Gallons @ \$ 5.69 per 1,000 Gallons.

Overland Development

Same as above

Cannonsburg Water District

Same as above

- If more than one rate, use additional sheets.

ATTACHMENT 1-C

Final Engineering Report

BIG SANDY WATER DISTRICT

PHASE V

WATER SYSTEM IMPROVEMENTS

Boyd, Lawrence and Carter Counties, Kentucky

June 2019

SME Project Code: 15030



SISLER-MAGGARD ENGINEERING, PLLC

220 EAST REYNOLDS ROAD, SUITE A3

LEXINGTON, KY 40517

(859) 271-2978

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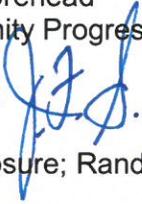
Email: sme@sislermaggard.com



MEMO

June 26, 2019

To: Elwood Howe, Area Director, Morehead
Anthony Hollingsworth, Community Progress Director

From: Joseph F. Sisler, P.E., President 

Cc: Big Sandy Water District w/enclosure; Randy Jones, Rubin & Hays

Subject: Big Sandy Water District
Phase V – Water System Improvements
SME #15030

The Big Sandy Water District (BSWD) received bids on the subject project on June 13, 2019. The Bid Tabulation is included herewith.

We have included the F.E.R. (Final Engineering Report) herewith and also simultaneously furnished same to Anthony Hollingsworth at State Office pursuant to his instructions. Also, in line with Ms. Teresa Shields instructions we have only included the changed pages from the P.E.R. such as New Budget, Proposed Rates, New loan amortization schedule, etc.

We have also included the full Revised Summary Addendum with the changed pages flagged to both parties.

We had a lengthy discussion with the Board at their June 19, 2019 regular Board meeting concerning the \$399,848 overrun. It should be noted that \$256,295 of the overrun is attributed to Contract H-1, which includes replacement of 47,000 L.F. of Blue Max service line and 1220 meter services which is 25.65% of their customers. The District believes the Blue Max to be a source of a major portion of their water losses, which is also stated herein is a subject of the PSC inquiry.

The Board by action at the Board meeting approved the necessary rate increase to improve their system.

As we stated in the F.E.R. the PSC has included BSWD in their water loss **hit** list. Since this project is primarily the District's long-term plan to deal with water loss, the sooner we can proceed to Construction the better, by getting in and out of Atlanta. However, we have included 90 days hold in contract documents. The details of these water loss improvement contracts: F-1 Water Tank Repairs & Painting; G-1 Pump Station Replacements & Upgrades; H-1 Service Line Replacements & Stream Crossing Replacements have been furnished to P.S.C.

If we can provide any further assistance, please advise.

FINAL ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS
(HIGHLIGHTED ITEMS ARE REVISED)

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**FINAL ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

EXECUTIVE SUMMARY

FINDINGS

Over the last 5-10 years the Big Sandy Water District has spent an immeasurable amount of time and resources of management, staff and personnel working to resolve their system water losses.

These efforts have included monthly discussions, directions and actions by the Board at their Board meetings. They have an ongoing Agenda item titled “Water Losses”. Personnel efforts have included water line walking at night, bringing in KRWA circuit rider, contracting for installation of some isolation valves, etc.

This Phase V project is an enhancement and continuation of those efforts.

This project will be directed at trying to fix some items that have been found to be regular problems, such as replacing some stream crossings with HDD installation of HDPE piping with leak detection; installing valves and in line meters to isolate leaks with this project (District has purchased several valves and appurtenances for their own installation). Also will purchase and develop GPS system to allow/assist in readily locating valves, blowoffs, etc. so that system can be monitored and shut down to CONSERVE water when leaks occur,

The Repair and/or painting of (8) eight water storage tanks will resolve some small leaks, but is primarily an effort to clean and remove rusting of tanks to assist in maintaining chlorine residual/disinfection for sanitary reasons.

The District discovered over 10 years ago that the ¾” Blue Max Service lines previously installed with extension contracts has failed in many, many instances. The District has spent much time and resources to replace these on a continual basis. On this project approximately **1220** residential service lines will be replaced thru out the District.

The replacement of the existing inadequate water office is needed for better efficient operation and will provide public with better access to meetings and include a drive-up window.

Since the issuance of the L.O.C. (Letter of Conditions) 11/20/2018, the improvements were designed and bid on June 13, 2019 which is the basis for this F.E.R.

However, the enhanced need for this project for water loss remediation, the Ky Public Service Commissions (P.S.C.) issued an order # 2019-00041 on May 3, 2019 concerning water loses in 12 water Districts. The BSWD is part of that order and is responding to P.S.C. concerning their effects including this PHASE V project.

RECOMMENDATIONS

Based on studies, findings and conclusions and in accordance with other pertinent information contained in this report, it is recommended that the Big Sandy Water District take the following steps:

- A) Review this report, then direct the Engineer, upon notification of RD, to immediately complete necessary documentation to RD for further processing for Loan and Grant funds to construct the improvements outlined in this Report.
- B) Direct the Engineer to complete all necessary plans, specifications and contract documents to receive approvals and permission to advertise this project for bids.
- C) Upon completion of the above and receipt of approvals, initiate actions to acquire required permits, fee simple titles and right of way easements for construction areas.
- D) Upon favorable review of RD, make necessary arrangements, through local and bond counsel, to proceed with the Project.

- ii. Green Infrastructure – The water service line construction will be built, then seeded and strawed ASAP to minimize run-off during construction.

The one new water booster pump station (Quarry Branch) and office building will be fenced with sedimentation fences, then seeded and strawed.

- iii. Other – The new office building will be designed and constructed as an energy efficient building.

The operation of booster pump station at Quarry Branch, with more efficient pumps and VFD's is clearly more efficient and cost effective. The addition of VFD's at all the other pump stations will make them all more efficient.

g) Cost Estimates

The Cost Estimates for the project components is located in Appendix under Cost Estimates.

O & M Costs. This project is a basically a rehabilitation project and the goal of all improvements is to lower and control O & M costs.

- i. Waterlines - Replacing all the **1220+** leaking Blue Max PVC service lines – Subsequently repairs of breaks and/or leaks will reduce purchased water loss and save the cost of labor and materials for such repairs. Therefore, a significant savings to existing O & M costs will be realized by these water service line replacements to the 1220+ residences.
- ii. Leak detection installations – Water loss monitoring.
- iii. Pump Stations - These Pump Stations are over 20 years old and not in good repair.

The Cunningham Hill and Fuller Ridge Stations are in need of extensive repair. These stations will need new buildings, pumps, VFD's and some piping in place.

**FINAL ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 5 - SELECTION OF AN ALTERNATIVE

The selection of alternatives on this project, beyond “DO NOTHING” are really not alternatives. This project is the solution of (5) five direct and specific needs:

(1) Waterlines: Multiple service line replacements – The only real alternative is replacement (in place) of the many failing water service lines. The District has been replacing the failing Blue Max PVC service lines sporadically for 10+ years. However, the job is logically unsurmountable for a SMALL water district to replace ±1220 services. However, this work is a must, based on the known water losses.

(2) Water tanks: As previously discussed, the painting and repairs of the tanks is a necessity for the continued integrity of the system and the SANITARY necessities of maintaining chlorine residuals where rusting and leaks exist.

(3) Leak Monitoring Infrastructure: The District has diligently been chasing leaks for 5+ years. To assist in that effort this project will add the following:

- 1) Replace failing stream crossings with horizontal directional drilling of HDPE.
- 2) Adding leak detection assemblies at streams
- 3) Installing Master Meters in distribution system to isolate and determine flow before and after leaks
- 4) Provide system with GPS to allow ready location of all infrastructure such as valves, meters, blowoffs, etc. This will give ready access to items to isolate and confine leaks.
- 5) Install more “isolation” valves throughout system
- 6) District is already purchasing and installing “isolation” valves and will request reimbursement from project.

(4) Pump Stations: The existing pump stations are 20-30 years old and beyond their efficient operation and maintenance life time. We have outlined hereinbefore the necessary repair/replacement work on the pump stations.

(5) Office Building: The existing office building is a 20 year old deteriorating double wide that has electrical problems, insulation problems, rodent infestations, privacy of staff, etc.

The new building will be located on adjacent property that has become available. The old service station/general store property has been acquired by District and cleared in 2017.

The building will be energy efficient and operationally efficient for management staff to be allowed some privacy, more filing space (**including future space in reinforced attic**), conference room space to allow public participation with adequate parking and a drive up window.

a) Life Cycle Cost analysis – A life cycle/present worth cost analysis to evaluate present and future costs for comparison of alternatives is not needed due to the fact that these improvements are dictated by system failures and other alternatives are not viable or reasonable.

b) Non-Monetary Factors

- i. Operator Training – System operators already operate multiple pump stations and water tanks. Subsequently no new training will be required. Of course, the NEW or rehabbed pump station specifications will require the equipment’s supplier to give “specific” training on their VFD’s control panel, etc.
- ii. Design Criteria and Approvals and Permit Requirements – All waterlines and pump stations will be designed in accordance with Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water (Ten State Standards), U.S. Department of Agriculture/Rural Development, and Kentucky Public Service Commission guidelines and their subsequent approvals. Approvals will be also secured from the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water Resources to obtain stream crossing permits where necessary.

Design drawings and Specifications will be submitted for approval by the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water, USDA/Rural Development and the Kentucky Public Service Commission.

**FINAL ENGINEERING REPORT
BIG SANDY WATER DISTRICT
PHASE V – WATER SYSTEM IMPROVEMENTS**

SECTION 6 – PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

a) Preliminary Project Design

i. Drinking Water –

EXISTING Water Suppliers – The water suppliers for the Big Sandy Water District System comes from the (7) seven sources as follows:

- 1) Ashland Water Works
- 2) City of Kenova, West Virginia
- 3) Louisa Board of Water and Sewer
- 4) Rattlesnake Ridge Water District
- 5) Cannonsburg Water District (Backup Only)
- 6) Paintsville (emergency backup only)
- 7) ~~Martin County Water District (emergency backup only) - Dropped~~

The Water Purchase contracts are included in the Appendix. The current combined allocation limits far exceed the 1,150,000 MGD average usage.

ii. Storage –

No new storage is needed. However, (8) eight of the existing tanks will have painting and/or repairs under this project.

iii. Pumping Stations –

No new pump stations are proposed under this project. However, a new replacement pump station will be built at Quarry Branch & Fuller Ridge.

Several (5) other stations will have repairs/rehab work done and VFD's (variable frequency drives) added to increase operation efficiencies and electricity savings.

iv. Distribution Waterlines –

This project replaces approximately 1220+ service lines to residences throughout District.

v. Leak Detection –

Water loss is a major problem with the District and gets a lot of their attention. About 50% of this project is to help monitor and control the water losses. See itemization of the proposed actions under previous section and in the Cost Estimate in Appendix.

vi. New Office Building –

The new proposed **2100** S.F. office building, as outlined hereinbefore, will be constructed on ½ acre tract next to the existing office structure which is a 20 year old double wide.

b) Project Schedule – Plans and Specifications – It is anticipated that plans and specifications for water service lines, booster pump station replacements and upgrades, tank repairs and painting, water loss infrastructure and new office building will be submitted for approval to D.O.W. & Housing and Building Construction by Dec 1, 2018. The D.O.W. approval should be available on or before January 15, 2019.

Land Purchase – The office building site has been acquired in 2017. Copy of deed in Appendix.

Waterline easements – There should be none required. The service lines will be on public right-of-ways or existing easements.

Pump Stations and Water Tanks – No easements or deeds are required as work will be done on existing properties.

KDOT Encroachment Permit – **Obtained for U.S. 60 Pump Station repair.**

Advertisement for Bids – **May 23, 2019**

Contract(s) Awards – **September 15, 2019**

Loan Pre-Closing – **September 15, 2019**

Initiation of Construction – **October 1, 2019**

Substantial Completion – **March 1, 2020**

Final Completion – **April 1, 2020**

Initiation of Operation - **March 1, 2020**

APPENDIX A

ESTIMATED CONSTRUCTION

AND

PROJECT COST

Revised June 2019

Revised Budget			
(Actual Bids, June 13, 2019) See Attached Bid Tabulations			
Big Sandy Water District			
Phase V - Water System Improvements			
	Proposed	As Bid	Comments
Contract F-1 - Water Tank Painting & Repairs	\$ 709,000.00	\$ 674,400.00	\$34,600 Underrun
Contract G-1 - Pump Station Upgrades (not Cunningham Hill)	\$ 245,000.00	\$ 237,000.00	\$8,000 Underrun - No Cunningham Hill
Contract H -1 - Stream Crossings & Service Line Replacements	\$ 522,000.00	\$ 778,295.00	\$256,295 Overrun
Contract I-1 - New Office Building	\$ 250,000.00	\$ 436,153.00	\$186,153 Overrun (adjusted)
			SEE AWARD NEGOTIATION ATTACHMENTS
Construction Costs	\$ 1,726,000.00	\$ 2,125,848.00	\$399,848 Overrun
Other items in Original Budget			
System Master Meters (3", 4", 6")	\$ 64,000.00	\$ 64,000.00	
System GPS	\$ 30,000.00	\$ 30,000.00	
Misc. Valves by District	\$ 30,000.00	\$ 29,827.00	
Subtotal A	\$ 124,000.00	\$ 123,827.00	
Cunningham Hill Pump Station - Labor - Others		\$ 18,390.00	
(Replaced by District due to failure) - Pumps Material		\$ 18,500.00	
- Misc. Material		\$ 1,910.00	
Other Items not in Budget			
Emergency Stream Crossing replacements		\$ 76,200.00	
09/06/18 - SR 1/SR 3 - \$38,200			
05/03/19 - SR 32 - \$38,000			
Telemetry (2 new P.S.)		\$ 35,000.00	
Security System (Office)		\$ 2,500.00	
Septic Tank/Drain Field (office)		\$ 2,500.00	
Cabinets & Shelving (Office)		\$ 8,000.00	
Subtotal B		\$ 163,000.00	
Total Construction Cost	\$ 1,850,000.00	\$ 2,412,675.00	
10% Contingency	\$ 180,000.00	\$ 120,325.00	5%
Total Construction Cost	\$ 2,030,000.00	\$ 2,533,000.00	

PROJECT ESTIMATE

SME # 15030

06/26/2019

Total Construction Cost				\$ 2,533,000.00
Engineering Fees (RD Fees) (\$2,533,000)				
Basic (7.42%)				\$ 188,000.00
Resident Inspection (4.28%)				\$ 108,000.00
Additional Engineering (Permits [\$3,000], easements [\$6,000], surveying [\$4,000], Grant Administration [\$20,000], Environmental [\$10,000], Building Subs(Architectural, Mechanical, Electrical, Structural) [\$25,000]), Other [\$4,500])				\$ 72,500.00
Land Acquisition (Fuller \$300) (Quarry \$1,000) (Building \$60,000 + \$1,200)				\$ 62,500.00
Legal and Administrative				\$ 36,000.00
Interest During Construction				\$ 40,000.00
Total Actual Project Cost				\$ 3,040,000.00
PROPOSED FUNDING (L.O.C. 11/20/2018)				
USDA - RURAL DEVELOPMENT GRANT (28.48%)				\$ 700,000.00
USDA - RURAL DEVELOPMENT LOAN (67.94%)				\$ 1,670,000.00
Applicant (BSWD) - (3.58%)				\$ 88,000.00
Total Estimated Project Cost				\$ 2,458,000.00
PROPOSED ADDITIONAL FUNDING				
USDA - RURAL DEVELOPMENT GRANT (24.91%)				\$ 145,000.00
USDA - RURAL DEVELOPMENT LOAN (67.87%)				\$ 395,000.00
Applicant (BSWD) - (7.22%)				\$ 42,000.00
Total Additional Project Cost				\$ 582,000.00
FINAL FUNDING				
USDA - RURAL DEVELOPMENT GRANT (27.80%)				\$ 845,000.00
USDA - RURAL DEVELOPMENT LOAN (67.93%)				\$ 2,065,000.00
Applicant (BSWD) - (4.27%)				\$ 130,000.00
Total Project Cost				\$ 3,040,000.00

*Contract I-1
Building*

Award Negotiation!

Corrie

From: Corrie
Sent: Tuesday, June 18, 2019 2:22 PM
To: Jody Franklin; Joe@SislerMaggard.com
Subject: RE: Big Sandy Savings

Good afternoon Jody,

Please see Joe's remarks in [blue](#) below ...

Thank you,

Corrie Hanson

Administrative Assistant
Sisler-Maggard Engineering, PLLC
220 East Reynolds Rd, Suite A-3
Lexington, Kentucky 40517
859-271-2978-T
859-271-5670-F

Jody/Isaac,

The items that Joe had marked were plumbing fixtures, access stair to regular attic access, HM doors and hardware, and storefront. Per the subcontractors, here are where these changes came from:

2. Plumbing fixtures: Curtis said that his supplier changed the called out rear flushing toilet to a regular floor mount toilet in the Pro Flo brand – [Ok, but HC height! \\$600 deduct](#). Curtis thought that he had originally quoted an American Standard for the toilet. Also, they changed the kitchen area sink to a 15"x15" bar sink in the Pro Flo brand.
3. Delete specified access stair and install attic ladder: This change was made because the specifications called out a specific stair that was very expensive and did not pull down from the ceiling. We changed the cost to reflect a regular attic pull down stair with a 375 lb weight capacity. – [Ok, \\$3,116.69 deduct](#).
4. HM Doors and Hardware: Paul Johnson (the person from Schiller who quoted Big Sandy) said in an email to me the following: "Good news!! After reviewing the cost and talking with management we were able to use one of our buying programs and reduce the project cost of this project by \$2,000 reflected in the hollow metal pricing. We appreciate the opportunity to help save you and the customer money and hope to be working with you on this soon!!" – [Ok, \\$2,830 deduct](#).
9. Storefront: This change came largely (if not all) from switching from Cardinal Glass, who we had originally quoted, to May Contracting. - [Ok, \\$7,300 deduct](#).

Total Deducts = \$13,846.69

Therefore \$450,000 – 13,846.69 = \$436,153.00 (rounded off)

Will recommend as basis of award!

Thank you,

Maci

Original Bid		\$	474,005.20
Item Description	Amount Deducted		
1 Eliminate generator, transfer switch, generator pad, bollards, gas piping and tank pad.	\$ (25,900.00)		
2 Plumbing fixture change	\$ (600.00)		
3 Delete specified access stair and install attic ladder	\$ (3,116.69)		
4 HM Doors & Hardware change to equals	\$ (2,830.00)		
5 Eliminate Dedication Plaque	\$ (880.00)		
6 Painting and coatings change	\$ (350.00)		
7 Delete metal roof and install shingle roof	\$ (7,987.32)		
8 Bid adjustment: Intended Lump sum bid was \$450,000.00 including unit prices.	\$ (24,005.20)		
9 Change storefront to equals	\$ (7,300.00)		
Total Deductions	\$ (72,969.21)		
New quote minus deductions suggested	\$ 401,035.99		

Please see further explanation of items 2, 3, 4, 9

Therefore actual bid of \$474,005.20 is adjusted to \$450,000

APPENDIX B

FUNDING/FINANCIAL SECTION (2 Pages)

FUNDING BREAKDOWN

~~STATEMENT OF BUDGET, INCOME & EQUITY (RD442-2)~~

~~OPERATING BUDGET (RD442-7)~~

AMORTIZATION SCHEDULE

RD LOAN #1

RD LOAN #2

EXISTING RATE SCHEDULE

PROPOSED RATE SCHEDULE

BID TABULATIONS

Revised June 26, 2019

FINANCIAL

The Big Sandy Water District (BSWD) system covers the western and southern portion of Boyd County, the small eastern portion of Carter County and nearly all of rural-southern, eastern and western Lawrence County that is not covered by the City of Louisa. The primary rural waterline by City of Louisa is in the Fallsburg area along S.R. 3 and west of town in Busseyville/Yatesville Lake area along S.R. 32. As stated in the "existing facilities" portion of this report the BSWD took over the Lawrence County Water District in 2001 at the request of USDA - Rural Development. The Lawrence County Water District customers were approved by KY PSC (Public Service Commission) under the BSWD rate structure.

The water purchase rates from the various water companies that BSWD purchases water from, vary significantly and have continued to grow frequently (at least every year) for the past few years. In Summer 2018 the rates were as follows:

City of Kenova	\$2.55/1000 gallons	
City of Ashland	\$2.19/1000 gallons	
City of Louisa	\$3.66/1000 gallons	
Cannonsburg Water District	\$4.42/1000 gallons	← \$4.60 + \$4.00 Surcharge per bill for 4 years. Effective May 1, 2019
Rattlesnake Ridge Water District	\$3.82/1000 gallons	

The City of Ashland purchase agreement of 2013 had agreed to hold their published bulk rate less .75¢/1000 gallons (which is currently \$2.94 - .75¢ = \$2.19/1000 gallons) for 5 years until 2018 and then it would raise to their bulk rate that they charge Cannonsburg Water District as established by current Ashland Rate Ordinance. That rate is anticipated to be around \$2.94/1000 gallons in 2019.

Revised 06/26/2019

FINANCIAL

(Based on actual bids 06/13/19)

BIG SANDY WATER DISTRICT

Committed loan of \$1,672,000 (Interest Rate 2.375%)

Debt Service = \$72,000

Proposed new loan of \$395,000 (Interest Rate 2.125%)

Debt Service = \$16,500

Proposed Rate Increase (Per L.O.C.) (4000 gal) is 5.28%

New Loan

\$395,000

Rate Increase

(7.95%) \$3.42/mo.

Revenue Based On

4676 – Residential Customers

80 – Non-Residential Customers

4756 – Customers

FUNDING BREAKDOWN

SME # 15030

06/26/2019

PROPOSED FUNDING (L.O.C. 11/20/2018)				
	USDA - RURAL DEVELOPMENT GRANT (28.48%)			\$ 700,000.00
	USDA - RURAL DEVELOPMENT LOAN (67.94%)			\$ 1,670,000.00
	Applicant (BSWD) - (3.58%)			\$ 88,000.00
	Total Estimated Project Cost			\$ 2,458,000.00
PROPOSED ADDITIONAL FUNDING				
	USDA - RURAL DEVELOPMENT GRANT (24.91%)			\$ 145,000.00
	USDA - RURAL DEVELOPMENT LOAN (67.87%)			\$ 395,000.00
	Applicant (BSWD) - (7.22%)			\$ 42,000.00
	Total Additional Project Cost			\$ 582,000.00
FINAL FUNDING				
	USDA - RURAL DEVELOPMENT GRANT (27.80%)			\$ 845,000.00
	USDA - RURAL DEVELOPMENT LOAN (67.93%)			\$ 2,065,000.00
	Applicant (BSWD) - (4.27%)			\$ 130,000.00
	Total Project Cost			\$ 3,040,000.00

Big Sandy Water District

Loan - RUS **TABLE DATA**

Loan amount:	\$1,670,000.00	Table starts at date:	
Ann. interest rate:	2.380%	or at payment number:	1
Term in years:	40		
Payments / year:	1		
First payment due	1/1/2021		

Payment: **\$65,189.10**

Plus 10% Cover	\$6,518.91	No.	Payment Date	Beginning Balance	Interest
		1	1/1/2021	1,670,000.00	39,746.00
		2	1/1/2022	1,644,556.90	39,140.45
Total Annual Payment	\$71,708.00	3	1/1/2023	1,618,508.26	38,520.50
		4	1/1/2024	1,591,839.66	37,885.78
		5	1/1/2025	1,564,536.35	37,235.97

Use payment of:	\$65,189.10	Beginning balance at payment 1:	1,670,000.00
payment in table: 1		Cumulative interest prior to payment 1:	0.00

Table

No.	Payment Date	Beginning Balance	Interest	Principal	Ending Balance	Cumulative Interest
1	1/1/2021	1,670,000.00	39,746.00	25,443.10	1,644,556.90	39,746.00
2	1/1/2022	1,644,556.90	39,140.45	26,048.64	1,618,508.26	78,886.45
3	1/1/2023	1,618,508.26	38,520.50	26,668.60	1,591,839.66	117,406.95
4	1/1/2024	1,591,839.66	37,885.78	27,303.31	1,564,536.35	155,292.74
5	1/1/2025	1,564,536.35	37,235.97	27,953.13	1,536,583.22	192,528.70
6	1/1/2026	1,536,583.22	36,570.68	28,618.41	1,507,964.81	229,099.38
7	1/1/2027	1,507,964.81	35,889.56	29,299.53	1,478,665.28	264,988.94
8	1/1/2028	1,478,665.28	35,192.23	29,996.86	1,448,668.41	300,181.18
9	1/1/2029	1,448,668.41	34,478.31	30,710.79	1,417,957.63	334,659.49
10	1/1/2030	1,417,957.63	33,747.39	31,441.70	1,386,515.92	368,406.88
11	1/1/2031	1,386,515.92	32,999.08	32,190.02	1,354,325.91	401,405.96
12	1/1/2032	1,354,325.91	32,232.96	32,956.14	1,321,369.77	433,638.91
13	1/1/2033	1,321,369.77	31,448.60	33,740.49	1,287,629.27	465,087.51
14	1/1/2034	1,287,629.27	30,645.58	34,543.52	1,253,085.75	495,733.09
15	1/1/2035	1,253,085.75	29,823.44	35,365.65	1,217,720.10	525,556.53
16	1/1/2036	1,217,720.10	28,981.74	36,207.36	1,181,512.74	554,538.27
17	1/1/2037	1,181,512.74	28,120.00	37,069.09	1,144,443.65	582,658.27
18	1/1/2038	1,144,443.65	27,237.76	37,951.34	1,106,492.31	609,896.03
19	1/1/2039	1,106,492.31	26,334.52	38,854.58	1,067,637.74	636,230.55
20	1/1/2040	1,067,637.74	25,409.78	39,779.32	1,027,858.42	661,640.33
21	1/1/2041	1,027,858.42	24,463.03	40,726.06	987,132.35	686,103.36
22	1/1/2042	987,132.35	23,493.75	41,695.35	945,437.01	709,597.11
23	1/1/2043	945,437.01	22,501.40	42,687.69	902,749.31	732,098.51
24	1/1/2044	902,749.31	21,485.43	43,703.66	859,045.65	753,583.94
25	1/1/2045	859,045.65	20,445.29	44,743.81	814,301.84	774,029.23
26	1/1/2046	814,301.84	19,380.38	45,808.71	768,493.13	793,409.61
27	1/1/2047	768,493.13	18,290.14	46,898.96	721,594.17	811,699.75
28	1/1/2048	721,594.17	17,173.94	48,015.15	673,579.02	828,873.69
29	1/1/2049	673,579.02	16,031.18	49,157.91	624,421.10	844,904.87
30	1/1/2050	624,421.10	14,861.22	50,327.87	574,093.23	859,766.09
31	1/1/2051	574,093.23	13,663.42	51,525.68	522,567.55	873,429.51
32	1/1/2052	522,567.55	12,437.11	52,751.99	469,815.57	885,866.62
33	1/1/2053	469,815.57	11,181.61	54,007.48	415,808.08	897,048.23
34	1/1/2054	415,808.08	9,896.23	55,292.86	360,515.22	906,944.46
35	1/1/2055	360,515.22	8,580.26	56,608.83	303,906.39	915,524.72
36	1/1/2056	303,906.39	7,232.97	57,956.12	245,950.26	922,757.70
37	1/1/2057	245,950.26	5,853.62	59,335.48	186,614.78	928,611.31
38	1/1/2058	186,614.78	4,441.43	60,747.66	125,867.12	933,052.74
39	1/1/2059	125,867.12	2,995.64	62,193.46	63,673.66	936,048.38
40	1/1/2060	63,673.66	1,515.43	63,673.66	0.00	937,563.81

bswd

Loan - RUS		TABLE DATA		
Loan amount:	\$395,000.00	Table starts at date:		
Ann. interest rate:	2.125%	or at payment number: 1		
Term in years:	40			
Payments / year:	1			
First payment due:	1/1/2020			
10% debt Coverage		\$1,475.79	Payment:	\$14,757.94
		No.	Payment Date	Beginning Balance
		1	1/1/2020	395,000.00
		2	1/1/2021	387,160.02
		3	1/1/2022	379,153.44
		4	1/1/2023	370,976.72
		5	1/1/2024	362,626.25
Use payment of:		\$16,233.73	Beginning balance at payment 1:	395,000.00
Payment in table: 1			Cumulative interest prior to payment 1:	0.00

Table

No.	Payment Date	Beginning Balance	Interest	Principal	Ending Balance	Cumulative Interest
1	#####	395,000.00	8,393.75	7,839.98	387,160.02	8,393.75
2	#####	387,160.02	8,227.15	8,006.58	379,153.44	16,620.90
3	#####	379,153.44	8,057.01	8,176.72	370,976.72	24,677.91
4	#####	370,976.72	7,883.26	8,350.47	362,626.25	32,561.17
5	#####	362,626.25	7,705.81	8,527.92	354,098.32	40,266.97
6	#####	354,098.32	7,524.59	8,709.14	345,389.18	47,791.56
7	#####	345,389.18	7,339.52	8,894.21	336,494.97	55,131.08
8	#####	336,494.97	7,150.52	9,083.21	327,411.76	62,281.60
9	#####	327,411.76	6,957.50	9,276.23	318,135.53	69,239.10
10	#####	318,135.53	6,760.38	9,473.35	308,662.18	75,999.48
11	#####	308,662.18	6,559.07	9,674.66	298,987.52	82,558.55
12	#####	298,987.52	6,353.48	9,880.25	289,107.28	88,912.04
13	#####	289,107.28	6,143.53	10,090.20	279,017.08	95,055.57
14	#####	279,017.08	5,929.11	10,304.62	268,712.46	100,984.68
15	#####	268,712.46	5,710.14	10,523.59	258,188.87	106,694.82
16	#####	258,188.87	5,486.51	10,747.22	247,441.65	112,181.33
17	#####	247,441.65	5,258.14	10,975.59	236,466.06	117,439.47
18	#####	236,466.06	5,024.90	11,208.83	225,257.23	122,464.37
19	#####	225,257.23	4,786.72	11,447.01	213,810.22	127,251.09
20	#####	213,810.22	4,543.47	11,690.26	202,119.96	131,794.56
21	#####	202,119.96	4,295.05	11,938.68	190,181.28	136,089.61
22	#####	190,181.28	4,041.35	12,192.38	177,988.90	140,130.96
23	#####	177,988.90	3,782.26	12,451.47	165,537.43	143,913.22
24	#####	165,537.43	3,517.67	12,716.06	152,821.37	147,430.89
25	#####	152,821.37	3,247.45	12,986.28	139,835.10	150,678.35
26	#####	139,835.10	2,971.50	13,262.23	126,572.86	153,649.84
27	#####	126,572.86	2,689.67	13,544.06	113,028.81	156,339.52
28	#####	113,028.81	2,401.86	13,831.87	99,196.94	158,741.38
29	#####	99,196.94	2,107.93	14,125.80	85,071.14	160,849.31
30	#####	85,071.14	1,807.76	14,425.97	70,645.17	162,657.07
31	#####	70,645.17	1,501.21	14,732.52	55,912.65	164,158.28
32	#####	55,912.65	1,188.14	15,045.59	40,867.07	165,346.43
33	#####	40,867.07	868.43	15,365.30	25,501.76	166,214.85
34	#####	25,501.76	541.91	15,691.82	9,809.95	166,756.77
35	#####	9,809.95	208.46	9,809.95	0.00	166,965.23
36	#####	0.00	0.00	0.00	0.00	166,965.23
37	#####	0.00	0.00	0.00	0.00	166,965.23
38	#####	0.00	0.00	0.00	0.00	166,965.23

EXISTING

15030

BIG SANDY WATER DISTRICT
(Name of Utility)

FOR	DIVISION 1
P.S.C. KY. NO.	1
30th Revised	SHEET NO. 1
CANCELLING P.S.C. KY. NO.	1
20th Revised	SHEET NO. 1

Division 1 Monthly Water Rates (Original Big Sandy Water District Area)

5/8" x 3/4" Meter		
First	1,000 gallons	\$17.02 Minimum Bill
Next	9,000 gallons	8.67 per 1,000 gallons
Next	10,000 gallons	6.07 per 1,000 gallons
Next	20,000 gallons	5.85 per 1,000 gallons
Over	40,000 gallons	5.42 per 1,000 gallons
1" Meter		
First	10,000 gallons	\$94.97 Minimum Bill
Next	10,000 gallons	6.07 per 1,000 gallons
Next	20,000 gallons	5.85 per 1,000 gallons
Over	40,000 gallons	5.42 per 1,000 gallons
1 1/2" Meter		
First	20,000 gallons	\$155.67 Minimum Bill
Next	20,000 gallons	5.85 per 1,000 gallons
Over	40,000 gallons	5.42 per 1,000 gallons
2" Meter		
First	40,000 gallons	\$268.67 Minimum Bill
Over	40,000 gallons	5.42 per 1,000 gallons
3" Meter		
First	100,000 gallons	\$593.67 Minimum Bill
Over	100,000 gallons	5.42 per 1,000 gallons
4" Meter		
First	200,000 gallons	\$1,135.67 Minimum Bill
Over	200,000 gallons	5.42 per 1,000 gallons
Wholesale Water Rate		
Cannonsburg Water District		\$5.12 per 1,000 gallons

Rates based on monthly consumption and calculated per 100 gallons

Date of Issue 1/13/2017
Month / Date / Year

Date Effective 1/1/2017
Month / Date / Year

Issued By Paul E. Thomas
Signature of Officer

Title Chairman
BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. 2016-00423 DATED 01/04/17

KENTUCKY PUBLIC SERVICE COMMISSION
Talina R. Mathews EXECUTIVE DIRECTOR
<i>Talina R. Mathews</i>
EFFECTIVE 1/1/2017 PURSUANT TO 807 KAR 5.011 SECTION 9.11.

BIG SANDY WATER DISTRICT
(Name of Utility)

FOR	DIVISION 2	
P.S.C. KY. NO.		1
28th Revised	SHEET NO.	2
CANCELLING P.S.C. KY. NO.		1
27th Revised	SHEET NO.	2

Division 2 Monthly Water Rates (Former Overland Development Area)

First	2,000 gallons	\$25.48 Minimum Bill
Next	8,000 gallons	10.01 per 1,000 gallons
Next	20,000 gallons	8.23 per 1,000 gallons
Next	20,000 gallons	7.29 per 1,000 gallons
Over	50,000 gallons	6.39 per 1,000 gallons

Date of Issue 1/13/2017
Month / Date / Year

Date Effective 1/1/2017
Month / Date / Year

Issued By *Paul S. Thomas*
Signature of Officer

Title Chairman

BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. 2016-00423 DATED 01/04/17

KENTUCKY PUBLIC SERVICE COMMISSION
Talina R. Mathews EXECUTIVE DIRECTOR <i>Talina R. Mathews</i>
EFFECTIVE 1/1/2017 PURSUANT TO 807 KAR 5 011 SECTION 5 (1)

PROPOSED

A. Recommended Rate Schedule with RUS Grant:

Meter Size 5/8"

<i>First</i>	<u>1,000</u>	<i>Gallons @ \$</i>	<u>18.25</u>	<i>Minimum.</i>
<i>Next</i>	<u>9,000</u>	<i>Gallons @ \$</i>	<u>9.40</u>	<i>per 1,000 Gallons.</i>
<i>Next</i>	<u>10,000</u>	<i>Gallons @ \$</i>	<u>6.40</u>	<i>per 1,000 Gallons.</i>
<i>Next</i>	<u>20,000</u>	<i>Gallons @ \$</i>	<u>5.95</u>	<i>per 1,000 Gallons.</i>
<i>All Over</i>	<u>40,000</u>	<i>Gallons @ \$</i>	<u>5.70</u>	<i>per 1,000 Gallons</i>

Meter Size 1":

<i>First</i>	<u>10,000</u>	<i>Gallons @ \$</i>	<u>102.85</u>	<i>Minimum.</i>
<i>Next</i>	<u>10,000</u>	<i>Gallons @ \$</i>	<u>6.40</u>	<i>per 1,000 Gallons.</i>
<i>Next</i>	<u>20,000</u>	<i>Gallons @ \$</i>	<u>5.95</u>	<i>per 1,000 Gallons.</i>
<i>ALL OVER</i>	<u>40,000</u>	<i>Gallons @ \$</i>	<u>5.70</u>	<i>per 1,000 Gallons.</i>

Meter Size 1 1/2":

<i>First</i>	<u>20,000</u>	<i>Gallons @ \$</i>	<u>166.85</u>	<i>Minimum.</i>
<i>Next</i>	<u>20,000</u>	<i>Gallons @ \$</i>	<u>5.95</u>	<i>per 1,000 Gallons.</i>
<i>ALL OVER</i>	<u>40,000</u>	<i>Gallons @ \$</i>	<u>5.70</u>	<i>per 1,000 Gallons.</i>

Meter Size 2":

<i>First</i>	<u>40,000</u>	<i>Gallons @ \$</i>	<u>285.85</u>	<i>Minimum.</i>
<i>ALL OVER</i>	<u>40,000</u>	<i>Gallons @ \$</i>	<u>5.70</u>	<i>per 1,000 Gallons.</i>

Meter Size 3":

<i>First</i>	<u>100,000</u>	<i>Gallons @ \$</i>	<u>627.85</u>	<i>Minimum.</i>
<i>ALL OVER</i>	<u>100,000</u>	<i>Gallons @ \$</i>	<u>5.70</u>	<i>per 1,000 Gallons.</i>

PROPOSED

Meter Size 4":

First 200,000 Gallons @ \$ 1,197.85 Minimum.

ALL OVER 200,000 Gallons @ \$ 5.70 per 1,000 Gallons.

Overland Development

Same as above

Cannonsburg Water District

Same as above

- If more than one rate, use additional sheets.

ATTACHMENT 1-D

BID TAB
BIG SANDY WATER DISTRICT
PHASE V - WATER SYSTEM IMPROVEMENTS
CONTRACT F-1 - WATER TANK PAINTING & REPAIRS

BID OPENING 06/13/2019 @ 12:00 noon

ITEM NO.	ITEM DESCRIPTION	UNIT QUANTITY	Engineers Estimate		1 Currrens Construction Services, LLC Harrodsburg, KY		2 Worldwide Industries Corp. Butler, PA		3 D & M Painting Corp. Washington, PA		4 Seven Brothers Painting, Inc. Shelby Township, MI		5 Superior Industrial Maint. Co. Concord, NC	
			UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
			1	Sandblasting & Painting - 23,500 gallon steel ground storage tank (Fuller Ridge)	1 EA	\$ 35,000.00	\$ 35,000.00	\$ 43,700.00	\$ 43,700.00	\$ 44,162.00	\$ 44,162.00	\$ 65,800.00	\$ 65,800.00	\$ 70,000.00
2	Sandblasting & Painting - 40,600 gallon steel ground storage tank (Cunningham Hill)	1 EA	\$ 45,000.00	\$ 45,000.00	\$ 52,400.00	\$ 52,400.00	\$ 65,312.00	\$ 65,312.00	\$ 95,200.00	\$ 95,200.00	\$ 93,000.00	\$ 93,000.00	\$ 174,157.00	\$ 174,157.00
3	Sandblasting & Painting - 75,000 gallon steel ground storage tank (Quarry Branch)	1 EA	\$ 55,000.00	\$ 55,000.00	\$ 62,400.00	\$ 62,400.00	\$ 83,944.00	\$ 83,944.00	\$ 123,000.00	\$ 123,000.00	\$ 112,000.00	\$ 112,000.00	\$ 196,622.00	\$ 196,622.00
4	Sandblasting & Painting - 137,000 gallon steel ground storage tank (Rush Hill)	1 EA	\$ 100,000.00	\$ 100,000.00	\$ 106,900.00	\$ 106,900.00	\$ 137,805.00	\$ 137,805.00	\$ 148,000.00	\$ 148,000.00	\$ 171,000.00	\$ 171,000.00	\$ 295,814.00	\$ 295,814.00
5	Sandblasting & Painting - 216,000 gallon steel ground storage tank (Bowling Drive)	1 EA	\$ 120,000.00	\$ 120,000.00	\$ 133,200.00	\$ 133,200.00	\$ 174,825.00	\$ 174,825.00	\$ 192,400.00	\$ 192,400.00	\$ 208,000.00	\$ 208,000.00	\$ 336,110.00	\$ 336,110.00
6	Sandblasting & Painting - 106,000 gallon steel ground storage tank (Buchanan)	1 EA	\$ 90,000.00	\$ 90,000.00	\$ 88,300.00	\$ 88,300.00	\$ 107,910.00	\$ 107,910.00	\$ 142,000.00	\$ 142,000.00	\$ 140,000.00	\$ 140,000.00	\$ 247,740.00	\$ 247,740.00
7	Sandblasting & Painting - 300,000 gallon steel ground storage tank (U.S. 23)	1 EA	\$ 140,000.00	\$ 140,000.00	\$ 148,400.00	\$ 148,400.00	\$ 189,610.00	\$ 189,610.00	\$ 210,200.00	\$ 210,200.00	\$ 230,000.00	\$ 230,000.00	\$ 339,197.00	\$ 339,197.00
8	Misc. Repairs/Caulking - 360,000 gallon (glass lined) ground storage tank (U.S. 23)	1 EA	\$ 25,000.00	\$ 25,000.00	\$ 26,500.00	\$ 26,500.00	\$ 36,441.00	\$ 36,441.00	\$ 24,000.00	\$ 24,000.00	\$ 20,000.00	\$ 20,000.00	\$ 359,719.00	\$ 359,719.00
9	General Grinding (as needed - Rush Hill Tank)	20 M.HR	\$ 75.00	\$ 1,500.00	\$ 60.00	\$ 1,200.00	\$ 140.00	\$ 2,800.00	\$ 150.00	\$ 3,000.00	\$ 100.00	\$ 2,000.00	\$ 100.00	\$ 2,000.00
10	Welding Seams (as needed - Rush Hill Tank)	40 LF	\$ 25.00	\$ 1,000.00	\$ 40.00	\$ 1,600.00	\$ 100.00	\$ 4,000.00	\$ 125.00	\$ 5,000.00	\$ 100.00	\$ 4,000.00	\$ 200.00	\$ 8,000.00
11	Pit Filler (as needed - Rush Hill Tank)	5 GAL	\$ 500.00	\$ 2,500.00	\$ 600.00	\$ 3,000.00	\$ 800.00	\$ 4,000.00	\$ 1,000.00	\$ 5,000.00	\$ 500.00	\$ 2,500.00	\$ 200.00	\$ 1,000.00
12	Pit Welding (as needed - Rush Hill Tank)	20 PITS	\$ 20.00	\$ 400.00	\$ 30.00	\$ 600.00	\$ 25.00	\$ 500.00	\$ 20.00	\$ 400.00	\$ 50.00	\$ 1,000.00	\$ 100.00	\$ 2,000.00
13	Seam Rolling w/extra coat of epoxy (as needed - Rush Hill Tank)	100 LF	\$ 25.00	\$ 2,500.00	\$ 20.00	\$ 2,000.00	\$ 40.00	\$ 4,000.00	\$ 40.00	\$ 4,000.00	\$ 20.00	\$ 2,000.00	\$ 50.00	\$ 5,000.00
14	Quarry Branch Tank (review & recommend floor warpage repair)	1 LS	\$ 5,000.00	\$ 5,000.00	\$ 4,200.00	\$ 4,200.00	\$ 4,240.00	\$ 4,240.00	\$ 4,200.00	\$ 4,200.00	\$ 10,000.00	\$ 10,000.00	\$ 8,000.00	\$ 8,000.00
TOTAL CONSTRUCTION COSTS (Items 1-14)				\$ 622,900.00		\$ 674,400.00		\$ 859,549.00		\$ 1,022,200.00		\$ 1,065,500.00		\$ 2,105,907.00

Certification: Sisler-Maggard Engineering, PLLC

We hereby certify that the above bid tabulations accurately represents bids received, except for noted corrections, and the bids were promptly opened and read aloud.

Joseph F. Sisler
JOSEPH F. SISLER, P.E., P.L.S.

6/14/19

BID TAB												
BIG SANDY WATER DISTRICT												
PHASE V - WATER SYSTEM IMPROVEMENTS												
CONTRACT G-1 - WATER BOOSTER PUMP STATION UPGRADES												
BID OPENING 06/13/2019 @ 12:00 noon												
				1		2		3				
				Engineers Estimate		B.P. Pipeline Quincy, KY		Triple B Construction Ashland, KY		Jones Contracting, LLC Lackey, KY		
ITEM NO.	ITEM DESCRIPTION			UNIT QUANTITY	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	Proposed Quarry Branch Pump Station Complete			1 EA	\$ 110,000.00	\$ 110,000.00	\$ 110,000.00	\$ 110,000.00	\$ 144,900.00	\$ 144,900.00	\$ 256,300.00	\$ 256,300.00
2	Proposed Fuller Ridge Pump Station Complete			1 EA	\$ 85,000.00	\$ 85,000.00	\$ 95,000.00	\$ 95,000.00	\$ 136,900.00	\$ 136,900.00	\$ 245,200.00	\$ 245,200.00
3	Existing "U.S. 60" Pump Station (Coalton) - Furnish & Install - V.F.D			1 EA	\$ 25,000.00	\$ 25,000.00	\$ 32,000.00	\$ 32,000.00	\$ 19,500.00	\$ 19,500.00	\$ 13,000.00	\$ 13,000.00
TOTAL CONSTRUCTION COSTS (Items 1-3)						\$ 220,000.00		\$ 237,000.00		\$ 301,300.00		\$ 514,500.00
<p>Certification: Sisler-Maggard Engineering, PLLC</p> <p>We hereby certify that the above bid tabulations accurately represents bids received, except for noted corrections, and the bids were promptly opened and read aloud.</p> <p style="text-align: center;"><i>Joseph F. Sisler</i> JOSEPH F. SISLER, P.E., P.L.S.</p> <p style="text-align: right;">6/14/19</p>												

BID TABULATION

BIG SANDY WATER DISTRICT

PHASE V - WATER SYSTEM IMPROVEMENTS

CONTRACT H-1 - STREAM CROSSING REPLACEMENTS AND SERVICE LINE REPLACEMENTS

BID OPENING 06/13/2019 @ 12:00 noon

				1		2		3		4		
				B.P. PIPELINE, LLC QUINCY, KY		OPELL EXCAVATING, LLC ASHLAND, KY		MINERAL LABS, INC (L&L) SALYERSVILLE, KY		BOCA ENTERPRISESE, INC. HAGER HILL, KY		
Engineers Estimate												
ITEM NO.	ITEM DESCRIPTION	UNIT QUANTITY	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	8" HDPE DR9 (IPS) Waterline - Horizontal Directional Drill (HDD)	350 LF	\$ 125.00	\$ 43,750.00	\$ 90.00	\$ 31,500.00	\$ 70.00	\$ 24,500.00	\$ 155.00	\$ 54,250.00	\$ 100.00	\$ 35,000.00
2	6" HDPE DR9 (IPS) Waterline - Horizontal Directional Drill (HDD)	575 LF	\$ 100.00	\$ 57,500.00	\$ 80.00	\$ 46,000.00	\$ 60.00	\$ 34,500.00	\$ 135.00	\$ 77,625.00	\$ 90.00	\$ 51,750.00
3	1" 250 PSI HDPE Service Line - Horizontal Directional Drill (HDD) (S.R. 581)	100 LF	\$ 20.00	\$ 2,000.00	\$ 25.00	\$ 2,500.00	\$ 6.00	\$ 600.00	\$ 30.00	\$ 3,000.00	\$ 40.00	\$ 4,000.00
4	12" Steel Casing - Bore & Jack w/6" Waterline (S.R. 581)	70 LF	\$ 125.00	\$ 8,750.00	\$ 130.00	\$ 9,100.00	\$ 90.00	\$ 6,300.00	\$ 200.00	\$ 14,000.00	\$ 175.00	\$ 12,250.00
5	Proposed 3/4" Service Line 250 PSI Polyethylene (S.R. 581)	25 LF	\$ 8.00	\$ 200.00	\$ 15.00	\$ 375.00	\$ 8.00	\$ 200.00	\$ 8.00	\$ 200.00	\$ 8.00	\$ 200.00
6	6" PVC CL 250 Waterline	1050 LF	\$ 10.00	\$ 10,500.00	\$ 18.00	\$ 18,900.00	\$ 10.00	\$ 10,500.00	\$ 18.00	\$ 18,900.00	\$ 15.00	\$ 15,750.00
7	3" PVC CL 250 Waterline	400 LF	\$ 8.00	\$ 3,200.00	\$ 15.00	\$ 6,000.00	\$ 7.00	\$ 2,800.00	\$ 12.00	\$ 4,800.00	\$ 7.50	\$ 3,000.00
8	6" Gate Valve	8 EA	\$ 1,200.00	\$ 9,600.00	\$ 850.00	\$ 6,800.00	\$ 1,050.00	\$ 8,400.00	\$ 2,000.00	\$ 16,000.00	\$ 1,200.00	\$ 9,600.00
9	3" Gate Valve	11 EA	\$ 700.00	\$ 7,700.00	\$ 650.00	\$ 7,150.00	\$ 675.00	\$ 7,425.00	\$ 1,700.00	\$ 18,700.00	\$ 1,000.00	\$ 11,000.00
10	Leak Detector Assembly	5 EA	\$ 1,500.00	\$ 7,500.00	\$ 1,600.00	\$ 8,000.00	\$ 1,250.00	\$ 6,250.00	\$ 2,000.00	\$ 10,000.00	\$ 1,000.00	\$ 5,000.00
11	Blow-Off Assembly	5 EA	\$ 1,500.00	\$ 7,500.00	\$ 1,500.00	\$ 7,500.00	\$ 1,000.00	\$ 5,000.00	\$ 2,200.00	\$ 11,000.00	\$ 1,200.00	\$ 6,000.00
12	Tie New 6" to Ex. 6" PVC	4 EA	\$ 1,500.00	\$ 6,000.00	\$ 1,200.00	\$ 4,800.00	\$ 800.00	\$ 3,200.00	\$ 2,500.00	\$ 10,000.00	\$ 2,500.00	\$ 10,000.00
13	Tie New 3" to Ex. 3" PVC	6 EA	\$ 1,000.00	\$ 6,000.00	\$ 800.00	\$ 4,800.00	\$ 775.00	\$ 4,650.00	\$ 2,000.00	\$ 12,000.00	\$ 2,500.00	\$ 15,000.00
14	Tie New 3/4" Service Line to Ex. 3/4" Service Line	2 EA	\$ 300.00	\$ 600.00	\$ 200.00	\$ 400.00	\$ 150.00	\$ 300.00	\$ 300.00	\$ 600.00	\$ 1,000.00	\$ 2,000.00
15	Re-Connect Ex. Meter (S.R. 581)	1 EA	\$ 500.00	\$ 500.00	\$ 1,000.00	\$ 1,000.00	\$ 200.00	\$ 200.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00
16	6" End Cap	6 EA	\$ 500.00	\$ 3,000.00	\$ 600.00	\$ 3,600.00	\$ 350.00	\$ 2,100.00	\$ 1,000.00	\$ 6,000.00	\$ 800.00	\$ 4,800.00
17	3" End Cap	4 EA	\$ 500.00	\$ 2,000.00	\$ 400.00	\$ 1,600.00	\$ 325.00	\$ 1,300.00	\$ 800.00	\$ 3,200.00	\$ 600.00	\$ 2,400.00
18	Fiberglass Markers (Stream Crossings)	12 EA	\$ 60.00	\$ 720.00	\$ 60.00	\$ 720.00	\$ 60.00	\$ 720.00	\$ 42.00	\$ 504.00	\$ 100.00	\$ 1,200.00
19	Replacement Service Line - 3/4" 250 PSI Polyethylene - for meters on Short Side of watermain less than 30 L.F. shall be Open Cut (Approx. 697 Services)	9,000 LF	\$ 8.00	\$ 72,000.00	\$ 7.50	\$ 67,500.00	\$ 15.00	\$ 135,000.00	\$ 5.00	\$ 45,000.00	\$ 5.00	\$ 45,000.00
20	Replacement Service Line - 3/4" 250 PSI Polyethylene for meters on Short or Long Side of watermain from 30 L.F. to 100 L.F. shall be by Trenchless Service Line Replacement Tool	18,600 LF	\$ 9.00	\$ 167,400.00	\$ 9.00	\$ 167,400.00	\$ 12.00	\$ 223,200.00	\$ 8.50	\$ 158,100.00	\$ 7.00	\$ 130,200.00
21	Replacement Service Line - 3/4" 250 PSI Polyethylene for meters on Short Side of watermain over 100 L.F. shall be by Horizontal Directional Drill (HDD)	13,500 LF	\$ 11.00	\$ 148,500.00	\$ 12.00	\$ 162,000.00	\$ 12.00	\$ 162,000.00	\$ 11.50	\$ 155,250.00	\$ 8.00	\$ 108,000.00
22	Replacement Service Line - 1" 250 PSI Polyethylene - Short/Long Side of watermain shall be Horizontal Directional Drill (HDD) (Approx. 10 Services)	5,900 LF	\$ 14.00	\$ 82,600.00	\$ 15.00	\$ 88,500.00	\$ 6.00	\$ 35,400.00	\$ 12.00	\$ 70,800.00	\$ 8.00	\$ 47,200.00
23	Reconnect Meters 3/4" - 1" - Short and Long Side	1220 EA	\$ 125.00	\$ 152,500.00	\$ 100.00	\$ 122,000.00	\$ 125.00	\$ 152,500.00	\$ 125.00	\$ 152,500.00	\$ 500.00	\$ 610,000.00
24	2" HDPE DR11 Waterline (Horizontal Directional Drill) @ U.S. 60	75 LF	\$ 30.00	\$ 2,250.00	\$ 26.00	\$ 1,950.00	\$ 20.00	\$ 1,500.00	\$ 28.00	\$ 2,100.00	\$ 45.00	\$ 3,375.00
25	2" CL 250 PVC Waterline	300 LF	\$ 7.00	\$ 2,100.00	\$ 18.00	\$ 5,400.00	\$ 7.00	\$ 2,100.00	\$ 5.50	\$ 1,650.00	\$ 7.00	\$ 2,100.00
26	2" Gate Valve	1 EA	\$ 600.00	\$ 600.00	\$ 600.00	\$ 600.00	\$ 700.00	\$ 700.00	\$ 1,500.00	\$ 1,500.00	\$ 1,000.00	\$ 1,000.00
27	2" Blow-off Assembly	1 EA	\$ 1,000.00	\$ 1,000.00	\$ 1,400.00	\$ 1,400.00	\$ 775.00	\$ 775.00	\$ 2,300.00	\$ 2,300.00	\$ 1,000.00	\$ 1,000.00
28	Tie New 2" to Ex. 6" Waterline	1 EA	\$ 500.00	\$ 500.00	\$ 800.00	\$ 800.00	\$ 1,200.00	\$ 1,200.00	\$ 2,000.00	\$ 2,000.00	\$ 2,500.00	\$ 2,500.00
TOTAL CONSTRUCTION COSTS (Items 1-28)				\$ 806,470.00	\$ 778,295.00	\$ 833,320.00	\$ 852,979.00	\$ 1,140,325.00				
<p>Certification: Sisler-Maggard Engineering, PLLC</p> <p>We hereby certify that the above bid tabulations accurately represents bids received, except for noted corrections, and the bids were promptly opened and read aloud.</p> <p><i>Joseph F. Sisler</i> JOSEPH F. SISLER, P.E., P.L.S.</p> <p>6/19/19</p>												

BID TAB
BIG SANDY WATER DISTRICT

PHASE V - WATER SYSTEM IMPROVEMENTS

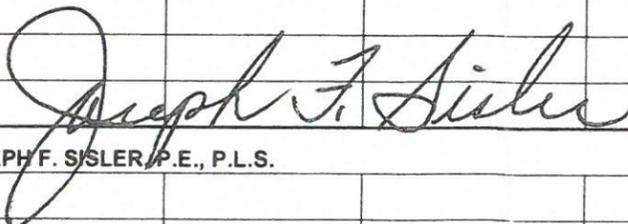
CONTRACT I-1 - OFFICE BUILDING

BID OPENING 06/13/2019 @ 12:00 noon

ITEM NO.	ITEM DESCRIPTION	UNIT QUANTITY		Engineers Estimate		1 Allen Construction West Liberty, KY		2 Jones Contracting, LLC Lackey, KY		3 Clays Performance Const., LLC West Hamlin, WV	
				UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1	Building Complete	1	LS	\$ 300,000.00	\$ 300,000.00	\$ 450,000.00	\$ 450,000.00	\$ 477,345.00	\$ 477,345.00	\$ 546,161.00	\$ 546,161.00
2	Stone Base (SEE SITE PLAN) Detail "C"	500	SY	\$ 20.00	\$ 10,000.00	\$ 19.21	\$ 9,605.00 *	\$ 7.00	\$ 3,500.00	\$ 35.40	\$ 17,700.00
3	Asphalt Paving on existing stone base (SEE SITE PLAN) Detail "B"	300	SY	\$ 25.00	\$ 7,500.00	\$ 35.20	\$ 10,560.00 *	\$ 35.00	\$ 10,500.00	\$ 42.33	\$ 12,699.00 *
4	Asphalt Paving including stone base (SEE SITE PLAN) Detail "A"	52	sy	\$ 60.00	\$ 3,120.00	\$ 73.85	\$ 3,840.20 *	\$ 50.00	\$ 2,600.00	\$ 63.46	\$ 3,299.92 *
TOTAL CONSTRUCTION COSTS (Items 1-4)					\$ 320,620.00		\$ 474,005.20 *		\$ 493,945.00		\$ 579,859.92 *

Certification: Sisler-Maggard Engineering, PLLC

We hereby certify that the above bid tabulations accurately represents bids received, except for noted corrections, and the bids were promptly opened and read aloud.


JOSEPH F. SISLER, P.E., P.L.S.

6/14/19

* Contract Bid #1 - Corrected amount - Bid amount did not include items 2 thru 4 on bid form

* Contract Bid #3 - Corrected amount - Bid items 3 & 4 were rounded off on bid form

ATTACHMENT 1-E

OPERATION AND MANAGEMENT PLAN

FOR

BIG SANDY WATER DISTRICT

18200 STATE ROUTE 3

CATLETTSBURG, KY 41129

P: (606) 928 – 2075

F: (606) 928 – 8454

1-800-354-2933

AUGUST 2018

I. DESCRIPTION OF SYSTEM:

The Big Sandy Water District was formed in 1981 to provide potable safe drinking water to rural Boyd and Carter counties. The need to provide the same safe potable water to rural Lawrence County was the largest portion of the Big Sandy Water District growth and demand over the past 20 years. The demand became greater in 1989 as an alternate potable water source was established with Louisa Board of Water and Sewer when the Big Sandy Water District took over Lawrence County Water District. The Big Sandy Water District also has a backup connection with Cannonsburg Water District and Rattlesnake Ridge Water District and the Paintsville Water System. The connection with Ashland Water Works was completed in 2013.

II. PHYSICAL MAKE-UP OF SYSTEM:

Potable water is purchased from City of Kenova crossing under Big Sandy River through two (2) 4" master meters located in Kenova, West Virginia. We also purchase water from Cannonsburg Water District (from Ashland), Louisa Board of Water and Sewer, Rattlesnake Ridge Water District and Paintsville City Utilities. The addition of the Ashland Water Works connection on US 23 at the South City Limits of Catlettsburg was completed in 2013.

The June 2018 percentage Breakdown of each usage is as follows

	Gallons	%
Ashland Water Works	8,937,000	25.80%
City of Kenova, West Virginia	11,782,900	34.02 %
Cannonsburg Water District	4,760,300	13.74%
Louisa Board of Water and Sewer	8,590,400	24.80%
Rattlesnake Ridge Water District	568,700	1.64%
Paintsville (emergency backup only)	0	0
	34,639,300 / 30 = 1,154,643 GPD	

The Big Sandy Water District distribution system is made up of a network of primarily PVC & HDPE water lines, size 12" through 3", with accompanying valves, meters, blow offs, pump stations, and storage facilities, to provide service to its customers.

The system has (10) ground storage tanks, holding 1.5 million gallons of storage and nine (9) water booster stations. The Big Sandy Water District uses water meters to determine the individual usage of water in the system.

III. MANAGEMENT:

The Big Sandy Water District is made up of five (5) Commission Members whose terms are for three (3) or four (4) years. Each member is appointed by the respective County Judge. There are two (2) commission members from Boyd County, two (2) from Lawrence County and one (1) from Carter County. The Big Sandy Water District Commission has the responsibility of the management decisions which are reflective of the community needs. The Big Sandy Water District Commission employs a Water System Manager, who in turn provides day to day management of the water system. The District has two (2) class II water distribution operators.

The Water System Manager oversees all daily operations such as clerical and maintenance. The Water System Manager employs the necessary people to staff the office and provide the services required for the water system. The total staff currently includes three (3) office clerks, (one (1) is part-time). There are six (6) full time field personnel (including manager) that read meters, provide testing of water and subsequent regulatory reporting and maintain the system's infrastructure & equipment.

A listing of the Commission Members as well as when public meetings take place, is provided at the office. The after hour telephone calls are answered by two (2) employees who in turn channel emergency calls to the appropriate personnel.

IV. OPERATION:

As stated above, the Big Sandy Water District employs a System Manager who in turn employs the necessary staff to read the meters on a monthly basis. These readings are given to the clerical staff who prepare bills for the water users. The water bills are then collected at the Big Sandy Water District office on State Route 3 by means of personal visits by the office, by mail, debit or credit cards on line or paying at banks.

All billing and collection records are recorded by the clerical staff. The same staff member then notifies management of any late payments, non-payments, deposits and other pertinent matters that affect the system.

All new accounts, as well as any complaints, are processed through this same office. The information is received by the clerical staff and given to management to decide on the proper course of action to be taken.

The Big Sandy Water District employs the necessary class of operators required by the Kentucky Division of Water and Kentucky Public Service Commission for their size and type of water system. The Big Sandy Water District Commission encourages that more than one person be certified as an operator, should there be unforeseen personnel changes.

V. MAINTENANCE:

The Big Sandy Water District employs a full time Manager who in turn employs the necessary staff and contractors to maintain and provide service to its customers. These same staff members and needed contractors provide needed repairs to the system as well as keeping proper inventory of parts, supplies and equipment to provide this service. The majority of repairs such as meter taps and some new construction are done by maintenance staff. If major infrastructure failures occur, the District employs outside contractors for assistance.

VI. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS:

The Big Sandy Water District complies with all Federal, State and Local laws. The system does not discriminate toward race, color, sex or nationality in its employment practices.

VII. AUDITS AND REPORTS:

The Big Sandy Water District has an annual audit provided by a Certified Public Accountant. These audits are on record at the four different County Court houses that the Big Sandy Water District serves to allow for public inspection. The required management reports to USDA – Rural Development and Kentucky Public Service Commission are properly prepared and filed in a timely manner.

VIII. MISCELLANEOUS:

Big Sandy Water District:

1. Maintains proper insurance, both liability and property for the water system.
2. Provides necessary workman's compensation for all staff employees.
3. Fidelity Bonds are kept current.

Chairman of the Board of Commission

Paul E. Thomas

Paul E. Thomas

Manager

David Blair

David Blair

ATTACHMENT 1-F



November 20, 2018

Mr. Paul Thomas, Chairman
Big Sandy Water District
18200 State Route 3
Catlettsburg, KY 41129

SUBJECT: Recipient Name: Big Sandy Water District

Project Name: Water Loss Improvements Project Phase V

Dear Chairman Thomas:

This letter establishes conditions that must be understood and agreed to by you before further consideration may be given to the application. The loan and grant will be administered on behalf of the Rural Utilities Service (RUS) by the State and Area office staff of USDA Rural Development. Any changes in project cost, source of funds, scope of services or any other significant changes in the project or applicant must be reported to and approved by USDA Rural Development, by written amendment to this letter. Any changes not approved by Rural Development shall be cause for discontinuing processing of the application. It should also be understood that Rural Development is under no obligation to provide additional funds to meet an overrun in construction costs.

This letter is not to be considered as loan or grant approval or as a representation as to the availability of funds. The docket may be completed on the basis of a RUS loan not to exceed \$1,670,000; a RUS grant not to exceed \$700,000; and an applicant cash contribution in the amount of \$88,000.

If Rural Development makes the loan, the interest rate will be the lower of the rate in effect at the time of loan approval or the rate in effect at the time of loan closing, unless the applicant otherwise chooses. The loan will be considered approved on the date a signed copy of Form RD 1940-1, "Request for Obligation of Funds," is mailed to you.

Please complete and return the attached Form RD 1942-46, "Letter of Intent to Meet Conditions," if you desire that further consideration be given to your application.

The "Letter of Intent to Meet Conditions" must be executed within three weeks from the date of this letter or it becomes invalid unless a time extension is granted by Rural Development.

If the conditions set forth in this letter are not met within 240 days from the date hereof, Rural Development reserves the right to discontinue the processing of the application. In signing Form RD 1942-46, "Letter of Intent to Meet Conditions," you are agreeing to complete the following as expeditiously as possible:

Rural Development • Kentucky State Office
771 Corporate Drive, Suite 200, Lexington, Kentucky 40502
Voice (859) 224-7300 • Fax (855) 661-8335 • TTY (859) 224-7422

USDA is an equal opportunity provider, employer and lender.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form (PDF), found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

1. Number of Users and Their Contribution:

There shall be 4,756 water users, of which all are existing users. The Area Director will review and authenticate the number of users prior to advertising for construction bids.

2. Grant Agreement:

Attached is a copy of RUS Bulletin 1780-12, "Water and Waste System Grant Agreement," for your review. You will be required to execute a completed form at the time of grant closing.

3. Drug-Free Work Place:

Prior to grant closing, the District will be required to execute Form AD-1049, "Certification Regarding Drug-Free Workplace Requirements (Grants) Alternative I - For Grantees Other Than Individuals."

4. Repayment Period:

The loan will be scheduled for repayment over a period not to exceed 40 years from the date of the Bond. Principal payment will not be deferred. Payments will be in accordance with applicable KRS, which requires interest to be paid semi-annually (January and July) and principal will be due on or before the first of January. Rural Development may require the District to adopt a supplemental payment agreement providing for monthly payments of principal and interest so long as the bond is held or insured by RUS. Monthly payments will be approximate amortized installments.

5. Recommended Repayment Method:

Payments on this loan shall be made using the Preauthorized Debit (PAD) payment method. This procedure eliminates the need for paper checks and ensures timely receipt of RD loan payments. To initiate PAD payments, Form RD 3550-28, "Authorization Agreement for Preauthorized Payments," should be signed by the District to authorize the electronic withdrawal of funds from your designated bank account on the exact installment payment due date. The Area Director will furnish the necessary forms and further guidance on the PAD procedure.

6. Reserve Accounts:

Reserves must be properly budgeted to maintain the financial viability of any operation. Reserves are important to fund unanticipated emergency maintenance, pay for repairs, and assist with debt service should the need arise.

The District will be required to deposit \$630 per month into a "Funded Debt Reserve Account" until the account reaches \$75,600. The deposits are to be resumed any time the account falls below the \$75,600.

The required monthly deposits to the Reserve Account and required Reserve Account levels are in addition to the requirements of the District's prior bond ordinances.

The monthly deposits to the Reserve Account are required to commence with the first month of the first full fiscal year after the facility becomes operational.

The District also needs to fund an account for short-lived assets by depositing a sum of \$6,275 monthly into the account. The funds in the short-lived asset account may be used by the District as needed to replace or add short-lived assets in the District's utility systems.

7. Security Requirements:

A pledge of gross water revenue(s) will be provided in the Bond Ordinance. Bonds shall rank on a parity with existing bonds, if possible.

If this is not possible, the bond will be subordinate and junior to the existing bonds, in which case the District will be required to abrogate its right to issue additional bonds ranking on a parity with the existing bonds, so long as any unpaid indebtedness remains on this bond issue. Additional security requirements are contained in [RUS Bulletin 1780-12, "Water and Waste System Grant Agreement," and RUS Bulletin 1780-27, "Loan Resolution Public Body." A draft of all security instruments, including, draft bond resolution, must be reviewed and concurred in by the Agency prior to advertising for bids. The Bond Resolution and Loan Resolution must be duly adopted and executed prior to loan closing. The Grant Agreement must be fully executed prior to the first disbursement of grant funds.

8. Land Rights and Real Property:

The District will be required to furnish satisfactory title, easements, etc., necessary to install, maintain and operate the facility to serve the intended users.

The pipelines will be on private rights-of-way where feasible. Easements and options are to be secured prior to advertising for construction bids.

9. Organization:

The District will be legally organized under applicable KRS, which will permit them to perform this service, borrow, or repay money.

The District must maintain a current registration of their Dun and Bradstreet Data Universal Numbering System (DUNS) number in SAM.gov (System for Award Management) in order to receive federal loan and/or grant financial assistance. This registration must be updated/renewed at least annually.

10. Business Operations:

The District will be required to operate the system under a well-established set of resolutions, rules and regulations. A budget must be established annually and adopted by the District after review by Rural Development. At no later than loan pre-closing, the District will be required to furnish a prior approved management plan to include, as a minimum, provisions for management, maintenance, meter reading, miscellaneous services, billing, collecting, delayed payment penalties, disconnect/reconnect fees, bookkeeping, making and delivering required reports and audits.

11. Conflict of Interest Policy:

Prior to obligation of funds, you will certify in writing that your organization has in place an up-to-date written policy on conflict of interest. The policy will include, at a minimum: (1) a requirement for those with a conflict/potential conflict to disclose the conflict/potential conflict, (2) a prohibition of interested members of the applicant's governing body from voting on any matter in which there is a conflict, and (3) a description of the specific process by which the governing body will manage identified or potential conflicts.

You must also submit a disclosure of planned or potential transactions related to the use of Federal funds that may constitute or present the appearance of personal or organizational conflict of interest. Sample conflict of interest policies may be found at the National Council of Nonprofits website,

<https://www.councilofnonprofits.org/tools-resources/conflict-of-interest>, or in Internal Revenue Service Form 1023, Appendix A, "Sample Conflict of Interest Policy," at <http://www.irs.gov/pub/irs-pdf/i1023.pdf>. Though these examples reference non-profit corporations, the requirement applies to all types of Agency borrowers.

Disclosure must be in the form of a written letter signed and dated by the applicant's official. A negative disclosure of the same format is required if no conflicts are anticipated. Assistance in developing a conflict of interest policy is available through Agency-contracted technical assistance providers if desired.

12. Accounts, Records and Audits:

The District will be required to maintain adequate records and accounts and submit annual budgets and year-end reports (annual audits)/statistical and financial reports, quarterly and annually, in accordance with subsection 1780.47 of RUS Instruction 1780.

The District shall be required to submit a copy of its audit agreement for review and concurrence by Rural Development prior to pre-closing the loan.

The District shall obtain the assistance of its accountant to establish the District's accounting system. Rural Development review of the accounting system is required.

13. Accomplish Audits for Years in Which Federal Financial Assistance is Received:

The type of financial information that must be submitted is specified below:

Audits – An annual audit under the Single Audit Act is required if you expend \$750,000 or more in Federal financial assistance per fiscal year. The total Federal funds expended from all sources shall be used to determine Federal financial assistance expended. Expenditures of interim financing are considered Federal expenditures.

All audits are to be performed in accordance with 2 CFR Part 200, as adopted by USDA through 2 CFR Part 400. Further guidance on preparing an acceptable audit can be obtained from the Agency. It is not intended that audits required by this part be separate and apart from audits performed in accordance with State and local laws. To the extent feasible, the audit work should be done in conjunction with those audits. The audit must be prepared by an independent licensed Certified Public Accountant, or a State or Federal auditor if allowed by State law, and must be submitted within 9 months of your fiscal year end.

14. Insurance and Bonding:

The following insurance and bonding will be required:

- A. Adequate Liability and Property Damage Insurance including vehicular coverage, if applicable, must be obtained and maintained by the District. The District should obtain amounts of coverage as recommended by its attorney, consulting engineer and/or insurance provider.
- B. Worker's Compensation - The District will carry worker's compensation insurance for employees in accordance with applicable state laws.
- C. Fidelity Bond - The District will provide Fidelity Bond Coverage for all persons who have access to funds. Coverage may be provided either for all individual positions or persons, or through "blanket" coverage providing protection for all appropriate employees and/or officials. The amount of coverage required for all RUS loans is \$245,000.
- D. Real Property Insurance - The District will obtain and maintain adequate fire and extended coverage on all structures including major items of equipment or machinery located in the structures. The amounts of coverage should be based on recommendations obtained by the District from its attorney, consulting engineer and/or insurance provider. Subsurface lift stations do not have to be covered except for the value of electrical and pumping equipment therein.
- E. Flood Insurance - The District will obtain and maintain adequate coverage on any facilities located in special flood and mudslide prone areas.

15. Planning and Performing Development:

- A. The engineer should not be authorized to commence work on final plans and specifications until a determination has been made that the project can be planned and constructed within the estimated cost shown in paragraph "28" of this letter. The engineer may then proceed to develop final plans and specifications to be completed no later than 210 days from this date, and prepare bid documents. The Area Director is prepared to furnish the necessary guide to follow so as to keep the project plans and documents within our guidelines and requirements. The project must be constructed by the design/bid/build method of construction. The project should not be advertised for construction bids until all easements and enforceable options have been obtained, and total funds are committed or available for the project.
- B. The following documents will be submitted to Rural Development for review and must be concurred in by Rural Development prior to advertisement for construction bids:
 - 1. Final plans, specifications and bid documents.
 - 2. Applicant's letter on efforts to encourage small business and minority-owned business participation.
 - 3. Legal Service Agreements.
 - 4. Engineering Agreements.

Revision in these documents will be subject to Rural Development concurrence. Any agreements, contracts, etc. not reviewed and approved by Rural Development will not be eligible for payment from project funds or revenues from facilities financed by this Agency.

Prior to receipt of an authorization to advertise for construction bids, the District will obtain advance clearance from Bond Counsel and/or Local Counsel regarding compliance with KRS 424 pertaining to publishing of the advertisement for construction bids in local newspapers and the period of time the notice is required to be published.

16. Bid Tabulation:

Immediately after bid opening, you must provide the Agency with the bid tabulation and your engineer's evaluation of bids and recommendations for contract awards. If the Agency agrees that the construction bids received are acceptable, adequate funds are available to cover the total project costs, and all the requirements of this letter have been satisfied, the Agency will authorize you to issue the Notice of Award.

- A. Cost Overruns – If bids are higher than expected, or if unexpected construction problems are encountered, you must utilize all options to reduce cost overruns. Negotiations, redesign, use of bidding alternatives, rebidding or other means will be considered prior to commitment of subsequent funding by the Agency. Any requests for subsequent funding to cover cost overruns will be contingent on the availability of funds.

Cost overruns exceeding 20% of the development cost at time of loan or grant approval or where the scope of the original purpose has changed will compete for funds with all other applications on hand as of that date.

- B. Excess Funds – If bids are lower than anticipated at time of obligation, excess funds must be de-obligated prior to start of construction except in the cases addressed in this paragraph. In cases where the original PER for the project included items that were not bid, or were bid as an alternate, the State Office official may modify the project to fully utilize obligated funds for those items. Amendments to the PER, ER, and letter of conditions may be needed for any work not included in the original project scope. In all cases, prior to start of construction, excess funds will be de-obligated, with grant funds being de-obligated first. Excess funds do not include contingency funds as described in this letter.

17. Contract Documents, Final Plans, and Specifications:

- A. The contract documents must consist of the EJCDC construction contract documents as indicated in RUS Bulletin 1780-26 or other Agency-approved forms of agreement.
- B. The contract documents, final plans, and specifications must comply with RUS Instruction 1780, Subpart C – Planning, Designing, Bidding, Contracting, Constructing and Inspections, and must be submitted to the Agency for concurrence prior to advertising for bids along with an updated cost estimate. The Agency may require another updated cost estimate if a significant amount of time elapses between the original submission and advertising for bids.

C. The use of any procurement method other than competitive sealed bids must be requested in writing and approved by the Agency.

18. Contract Review:

Your attorney will certify that the executed contract documents, including performance and payment, if required, are adequate and that the persons executing these documents have been properly authorized to do so in accordance with RUS Instruction 1780.61 (b).

19. Civil Rights & Equal Opportunity:

You should be aware of and will be required to comply with other federal statute requirements including but not limited to:

A. Section 504 of the Rehabilitation Act of 1973:

Under Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), no handicapped individual in the United States shall, solely by reason of their handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Rural Development financial assistance.

B. Civil Rights Act of 1964:

All borrowers are subject to, and facilities must be operated in accordance with, Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d et seq.) and Subpart E of Part 1901 of this Title, particularly as it relates to conducting and reporting of compliance reviews.

Instruments of conveyance for loans and/or grants subject to the Act must contain the covenant required by paragraph 1901.202(e) of this Title.

C. The Americans with Disabilities Act (ADA) of 1990:

This Act (42 U.S.C. 12101 et seq.) prohibits discrimination on the basis of disability in employment, state and local government services, public transportation, public accommodations, facilities, and telecommunications. Title II of the Act applies to facilities operated by state and local public entities that provide services, programs, and activities. Title III of the Act applies to facilities owned, leased, or operated by private entities that accommodate the public.

D. Age Discrimination Act of 1975:

This Act (42 U.S.C. 6101 et seq.) provides that no person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

E. Limited English Proficiency (LEP) under Executive Order 13166:

LEP statutes and authorities prohibit exclusion from participation in, denial of benefits of, and discrimination under Federally-assisted and/or conducted programs on the ground of race, color, or national origin. Title VI of the Civil Rights Act of 1964 covers program access for LEP persons.

LEP persons are individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English. These individuals may be entitled to language assistance, free of charge. You must take reasonable steps to ensure that LEP persons receive the language assistance necessary to have meaningful access to USDA programs, services, and information your organization provides. These protections are pursuant to Executive Order 13166 entitled, "Improving Access to Services by Persons with Limited English Proficiency" and further affirmed in the USDA Departmental Regulation 4330-005, "Prohibition Against National Origin Discrimination Affecting Persons with Limited English Proficiency in Programs and Activities Conducted by USDA."

Agency financial programs must be extended without regard to race, color, religion, sex, national origin, marital status, age, or physical or mental handicap. You must display posters (provided by the Agency) informing users of these requirements, and the Agency will monitor your compliance with these requirements during compliance reviews.

20. Closing Instructions:

The Office of General Counsel, our Regional Attorney, will be required to write closing instructions in connection with this loan. Conditions listed therein must be met by the District.

21. Compliance with Special Laws and Regulations:

The District will be required to conform to any and all state and local laws and regulations affecting this type project.

22. Treatment Plant and System Operator:

The District is reminded that the water system operator must have an Operator's Certificate issued by the State.

23. Prior to Pre-Closing the Loan, the District Will Be Required to Adopt:

- A. Form RUS Bulletin 1780-27, "Loan Resolution (Public Bodies)."
- B. Form RD 400-1, "Equal Opportunity Agreement."
- C. Form RD 400-4, "Assurance Agreement."
- D. Form AD-1047, "Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transaction."

- E. Form RD 1910-11, "Applicant Certification Federal Collection Policies for Consumer or Commercial Debts."
- F. RD Instruction 1940-Q, Exhibit A-1, "Certification for Contracts, Grants and Loans."
- G. RUS Bulletin 1780-22, "Eligibility Certification."

24. Refinancing and Graduation Requirements:

The District is reminded that if at any time it shall appear to the Government that the District is able to refinance the amount of the RUS indebtedness then outstanding, in whole or in part, by obtaining a loan from commercial sources at reasonable rates and terms, upon the request of the Government, the District will apply for and accept such loan in sufficient amount to repay the Government.

25. Commercial Interim Financing:

The District will be required to use commercial interim financing for the project during construction for the RUS loan portion of the financing, if available at reasonable rates and terms.

Before the loan is closed, the District will be required to provide Rural Development with statements from the contractor, engineer and attorneys that they have been paid to date in accordance with their contract or other agreements and, in the case of the contractor, that he has paid his suppliers and sub-contractors.

26. Disbursement of Project Funds:

A construction account for the purpose of disbursement of project funds (RUS) will be established by the District prior to start of construction. The position of officials entrusted with the receipt and disbursement of RUS project funds will be covered by a "Fidelity Bond," with USDA Rural Development as Co-Obligee, in the amount of construction funds on hand at any one time during the construction phase.

For each "construction account" as established, if the amount of RUS loan and grant funds plus any applicant contributions or funds from other sources to be deposited into the account are expected to exceed \$250,000 at any time, the financial institution will secure the amount in excess of \$250,000 by pledging collateral with the Federal Reserve Bank in an amount not less than the excess in accordance with 7 CFR, 1902.7(a).

Agency funds will be disbursed into the construction account through an electronic transfer system. The borrower should complete Form SF-3881, "Electronic Funds Transfer Payment Enrollment Form," for each account where funds will be electronically received. The completed form(s) must be received by Rural Development at least thirty (30) days prior to the first advance of funds.

Monthly audits of the District's construction account records shall be made by Rural Development.

Borrowers receiving federal loan and/or grant funds by EFT will have funds directly deposited to a specified account at a financial institution with funds being available to the recipient on the date of payment.

Any applicant contribution will be the first funds expended, followed by other funding sources. Interim financing or Agency loan funds will be expended after all other funding sources unless an agreement is reached with all other funding sources on how funds are to be disbursed prior to start of construction or loan closing, whichever occurs first. Interim financing funds or Agency loan funds must be used prior to the use of Agency grant funds. The Grant funds must not be disbursed prior to loan funds except as specified in RUS Instruction 1780.45 (d). In the unlikely event the Agency mistakenly disburses funds, the funds will be remitted back to the Agency electronically.

During construction, the District shall disburse project funds in a manner consistent with subsection 1780.76 (e) of RUS Instruction 1780. Form RD 1924-18, "Partial Payment Estimate," or similar form approved by Rural Development, shall be used for the purpose of documenting periodic construction estimates, and shall be submitted to Rural Development for review and acceptance. Prior to disbursement of funds by the District, the District Council shall review and approve each payment estimate. All bills and vouchers must be approved by Rural Development prior to payment by the District. Form RD 440-11, "Estimate of Funds Needed for 30-Day Period Commencing _____," will be prepared by the District and submitted to Rural Development in order that a periodic advance of federal cash may be requested.

27. Disbursement of Grant Funds:

The RUS funds will be advanced as they are needed in the amount(s) necessary to cover the RUS proportionate share of obligations due and payable by the District.

Grant funds are to be deposited in an interest bearing account in accordance with 2 CFR part 200 and interest in excess of \$500 per year remitted to the Agency. The funds should be disbursed by the recipient immediately upon receipt and there should be little interest accrual on the Federal funds. Recipients shall maintain advances of Federal funds in interest-bearing account, unless:

- a. The recipient receives less than \$120,000 in Federal awards per year.
- b. The best reasonably available interest-bearing account would not be expected to earn interest in excess of \$500 per year on Federal cash balances.
- c. The depository would require an average or minimum balance so high that it would not be feasible within the expected Federal and non-Federal cash resources.
- d. A foreign government or banking system prohibits or precludes interest-bearing accounts.

28. Project Budget:

Estimated expenditures are as follows:

Project Costs:

Development	\$1,850,000
Land and Rights	45,000
Legal and Administrative	30,000
Engineering Fees	298,000
Interest	35,000
Grant Administration	20,000
Contingencies	<u>180,000</u>
TOTAL PROJECT COST	\$2,458,000

Project Funding:

RUS Loan	\$1,670,000
RUS Grant	700,000
Applicant Contribution	<u>88,000</u>
TOTAL FUNDING	\$2,458,000

Any changes in funding sources following obligation of Agency funds must be reported to the processing official. Project feasibility and funding will be reassessed if there is a significant change in project costs after bids are received. If actual project costs exceed the project cost estimates, an additional contribution by the Owner may be necessary. Prior to advertisement for construction bids, you must provide evidence of applicant contributions and approval of other funding sources. This evidence should include a copy of the commitment letter. Agency funds will not be used to pre-finance funds committed to the project from other sources.

Obligated loan or grant funds not needed to complete the proposed project will be de-obligated prior to start of construction. Any reduction will be applied to grant funds first. An amended letter of conditions will be issued for any changes to the total project budget.

29. Construction Completion Timeframe:

All projects are required to be completed and all funds disbursed within five years of obligation. If funds are not disbursed within five years of obligation, you must submit a written waiver request with adequate justification of extenuating circumstances beyond your control for an extension of time. Any additional requests for waivers beyond the initial extension will be submitted through the State Office to the Assistant Administrator for concurrence decision.

30. Use of Remaining Project Funds:

The applicant contribution shall be considered as the first funds expended. After providing for all authorized costs, any remaining project funds will be considered to be RUS grant funds and refunded in proportion to participation in the project. If the amount of unused project funds exceeds the grants, that part would be RUS loan funds.

31. Proposed Operating Budget:

You will be required to submit to Rural Development a copy of your proposed annual operating budget that supports the proposed loan repayment prior to this agency giving you written authorization to proceed with the bidding phase. The operating budget should be based on a typical year cash flow, subject to completion of this project in the first full year of operation. Form RD 442-7, "Operating Budget," or similar form may be utilized for this purpose.

32. Rates and Charges:

Rates and charges for facilities and services rendered by the District must be at least adequate to meet cost of maintaining, repairing and operating the water system and meeting required principal and interest payments and the required deposits to debt service and/or depreciation reserve.

Water rates will be at least:

Meter size 5/8":

First	1,000	gallons @ \$18.00 - Minimum Bill.
Next	9,000	gallons @ \$ 9.10 – per 1,000 gallons.
Next	10,000	gallons @ \$ 6.37 – per 1,000 gallons.
Next	20,000	gallons @ \$ 5.93 – per 1,000 gallons.
All Over	40,000	gallons @ \$ 5.69 – per 1,000 gallons.

Meter size 1":

First	10,000	gallons @ \$99.90 - Minimum Bill.
Next	10,000	gallons @ \$ 6.37 – per 1,000 gallons.
Next	20,000	gallons @ \$ 5.93 – per 1,000 gallons.
All Over	40,000	gallons @ \$ 5.69 – per 1,000 gallons.

Meter size 1 ½":

First	20,000	gallons @ \$166.27 - Minimum Bill.
Next	20,000	gallons @ \$ 5.93 – per 1,000 gallons.
All Over	40,000	gallons @ \$ 5.69 – per 1,000 gallons.

Meter size 2":

First	40,000	gallons @ \$284.87 - Minimum Bill.
All Over	40,000	gallons @ \$ 5.69 – per 1,000 gallons.

Meter size 3":

First	100,000	gallons @ \$626.27 - Minimum Bill.
All Over	100,000	gallons @ \$ 5.69 – per 1,000 gallons.

Meter size 4”:

First 200,000 gallons @ \$1,195.27 - Minimum Bill.
All Over 200,000 gallons @ \$ 5.69 – per 1,000 gallons.

Overland Development – Same as above

Cannonsburg Water District – Bulk Rate @ \$5.69 per 1,000 gallons.

33. Water Purchase Contract:

The District will submit all Water Purchase Contracts for approval by Rural Development before advertising for construction bids. If the contract is not on Form RD 442-30, "Water Purchase Contract," the contract will require approval by our Regional Attorney. The contract must meet the requirements of subsection 1780.62 of RUS Instruction 1780.

34. Vulnerability Assessment/Emergency Response Plan (VA/ERP):

The Agency requires all financed water and wastewater systems to have a VA/ERP in place. Borrowers with existing systems must provide a certification that a VA/ERP has been completed prior to advertising for bids. The documents are not submitted to the Agency for VA/ERP requirements throughout the life of the loan.

35. Floodplain Construction:

The District will be required to pass and adopt a Resolution or amend its By-Laws whereby the District will deny any water service to any future customer wishing to build on or develop property located within a designated floodplain.

If a customer or developer requests service for construction in a designated floodplain, the customer or developer must provide evidence and a justification for approval by the District and Rural Development officials that there are no other alternatives to construction or development within the designated floodplain. The community must be a participant in the National Flood Insurance Program (NFIP) and the customer or developer must obtain the required permits prior to the tap on restrictions being waived.

36. Mitigation Measures:

- A. The project shall be in compliance with all requirements noted in the Governor's Office for Local Development letter dated May 10, 2018, from Ms. Lee Nalley.
- B. The design and construction shall be in compliance with the requirements of the U.S. Fish and Wildlife Service by letter dated October 29, 2018, and signed by Virgil Lee Andrews, Jr., Field Supervisor.
- C. The line design and construction shall be accomplished in a way that will leave flood plains and farmland without effect after construction is complete. The Army Corps of Engineers Nationwide Permit No. 12 applies to all floodplain and wetland utility line construction.

- D. Any excavation by Contractor that uncovers a historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted until RD can consult with the State Historical Preservation Officer and issue further directions.
- E. The design and construction shall be in compliance with all local, state and federal environmental statutes, regulations and executive orders applicable to the project.
- F. Best Management Practices shall be incorporated into the project design, construction, and maintenance.
- G. Since all corridor construction will occur in the existing highway right-of-way, if a stream is encountered it will necessarily be directional bored. Notify the RD if any relocation of the line is anticipated for stream crossings.
- H. All requirements stated in the USFWS letter dated October 29, 2018 shall be made a part of the project design, construction and maintenance.

37. System for Award Management:

You will be required to maintain a Dun and Bradstreet Data Universal Numbering System (DUNS) number and maintain an active registration in the System for Award Management (SAM) database. Renewal can be done on-line at: <http://sam.gov>.

This registration must be renewed and revalidated every twelve (12) months for as long as there are Agency funds to be expended.

To ensure the information is current, accurate and complete, and to prevent the SAM account expiration, the review and updates must be performed within 365 days of the activation date, commonly referred to as the expiration date. The registration process may take up to 10 business days. (See 2 CFR Part 25 and the "Help" section at <http://sam.gov>).

38. Prepayment and Extra Payments:

Prepayments of scheduled installments, or any portion thereof, may be made at any time at the option of borrower, with no penalty.

Security instruments, including bonding documents, must contain the following language regarding extra payments, unless prohibited by State statute:

Prepayments of scheduled installments, or any portion thereof, may be made at any time at the option of the borrower. Refunds, extra payments and loan proceeds obtained from outside sources for the purpose of paying down the Agency debt, shall, after payment of interest, be applied to the installments last to become due under this note and shall not affect the obligation of borrower to pay the remaining installments as scheduled in your security instruments.

39. Security/Operational Inspections:

The Agency will inspect the facility and conduct a review of your operations and records management system and conflict of interest policy every three years for the life of the loan. You must participate in these inspections and provide the required information.

40. American Iron & Steel:

Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A - Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) applies a new American Iron and Steel requirement:

- (1) No Federal funds made available for this fiscal year for the rural water, waste water, waste disposal, and solid waste management programs authorized by the Consolidated Farm and Rural Development Act (7 U.S.C. 1926 et seq.) shall be used for a project for the construction, alteration, maintenance, or repair of a public water or wastewater system unless all of the iron and steel products used in the project are produced in the United States.
- (2) The term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.
- (3) The requirement shall not apply in any case or category of cases in which the Secretary of Agriculture (in this section referred to as the "Secretary") or the designee of the Secretary finds that— a. applying the requirement would be inconsistent with the public interest; b. iron and steel products are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or c. inclusion of iron and steel products produced in the United States will increase the cost of the overall project by more than 25 percent.

41. Final Approval Conditions:

Final approval of this assistance will depend on your willingness, with the assistance of all your co-workers, to meet the conditions of this letter in an orderly and systematic manner. Then too, final approval will depend on funds being available.

If you desire to proceed with your application, the Area Director will allot a reasonable portion of time to provide guidance in application processing.

Sincerely,



HILDA GAY LEGG
State Director

Enclosures

cc: Area Director – Morehead, Kentucky
FIVCO ADD – Grayson, Kentucky
Roger Hall – Ashland, Kentucky
Randy Jones – Louisville, Kentucky
Sisler Maggard Engineering – Lexington, Kentucky
PSC - ATTN: Talina Mathews - Frankfort, Kentucky

ATTACHMENT 1-G



Rural Development

July 22, 2019

Kentucky State Office

771 Corporate Drive,
Suite 200
Lexington, KY
40503

Mr. Paul E. Thomas, Chairman
Big Sandy Water District
18200 State Route 3
Catlettsburg, Kentucky 42219

Voice 859.224.7300
Fax 855.661.8335
TTY 859.224.7422

Re: Letter of Conditions Dated 11/20/2018

Dear Chairman Thomas:

This letter shall serve as Amendment No. 1 to the Letter of Conditions dated November 20, 2018. The purpose of this amendment is to revise (1) total cost of the proposed project due to a construction bid overrun, (2) project funding, (3) fidelity bond coverage and (4) reserve requirements to include short lived assets.

The second paragraph on Page 1 is revised to read as follows:

"This letter is not to be considered as loan and/or grant approval or as a representation as to the availability of funds. The docket may be completed on the basis of a RUS loan not to exceed \$2,065,000, which is the total of the initial \$1,670,000 loan plus this subsequent \$395,000 loan, and a RUS grant not to exceed \$845,000 which is the total of the initial \$700,000 grant plus this subsequent grant of \$145,000. There will be an applicant cash contribution of \$130,000."

Paragraph numbered "6" is revised to read as follows:

"6. Reserve Accounts:

Reserves must be properly budgeted to maintain the financial viability of any operation. Reserves are important to fund unanticipated emergency maintenance, pay for repairs, and assist with debt service should the need arise.

The District will be required to deposit \$770 (\$630 for the initial loan, plus \$140 for the subsequent loan) per month into a "Funded Debt Reserve Account" until the account reaches \$92,400. The deposits are to be resumed any time the account falls below the 92,400.

The required monthly deposits to the Reserve Account and required Reserve Account levels are in addition to the requirements of the District's prior bond ordinances.

The monthly deposits to the Reserve Account are required to commence with the first month of the first full fiscal year after the facility becomes operational.

USDA is an equal opportunity provider, employer and lender.

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form (PDF), found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov.

The District also needs to fund an account for short-lived assets by depositing a sum of \$8,313 monthly into the account. The funds in the short-lived asset account may be used by the District as needed to replace or add short-lived assets in the District's water system."

Paragraph numbered "14" is revised to read as follows:

"14. Insurance and Bonding:

The following insurance and bonding will be required:

- C. Fidelity Bond – The District will provide Fidelity Bond Coverage for all persons who have access to funds. Coverage may be provided either for all individual positions or persons, or through "blanket" coverage providing protection for all appropriate employees and/or officials. The amount of coverage required for all RUS loans is \$262,000."

Paragraph numbered "28" is revised to read as follows:

"28. Cost of Facility:

Breakdown of Costs:

Development	\$ 2,413,000
Engineering	348,500
Interest	40,000
Land & Rights	62,500
Legal & Administrative	36,000
Grant Administrative	20,000
Contingencies	<u>120,000</u>
TOTAL	\$ 3,040,000

Financing:

RUS Loan (initial)	\$ 1,670,000
RUS Loan (subsequent)	395,000
RUS Grant (initial)	700,000
RUS Grant (subsequent)	145,000
Applicant Contribution	<u>130,000</u>
TOTAL	\$ 3,040,000 "

Paragraph numbered "32" is revised to read as follows:

"32. Rates and Charges:

Rates and charges for facilities and services rendered by the District must be at least adequate to meet cost of maintaining, repairing and operating the water system and meeting required principal and interest payments and the required deposits to debt service and/or depreciation reserve.

Water rates will be at least:

Meter Size 5/8"

First	1,000	gallons @ \$18.25. - Minimum Bill.
Next	9,000	gallons @ \$ 9.40. - per 1,000 gallons.
Next	10,000	gallons @ \$ 6.40. - per 1,000 gallons.
Next	20,000	gallons @ \$ 5.95. - per 1,000 gallons.
All Over	40,000	gallons @ \$ 5.70. - per 1,000 gallons.

Meter Size 1"

First	10,000	gallons @ \$102.85. - Minimum Bill.
Next	10,000	gallons @ \$ 6.40. - per 1,000 gallons.
Next	20,000	gallons @ \$ 5.95. - per 1,000 gallons.
All Over	40,000	gallons @ \$ 5.70. - per 1,000 gallons.

Meter Size 1 1/2"

First	20,000	gallons @ \$166.85. - Minimum Bill.
Next	20,000	gallons @ \$ 5.95. - per 1,000 gallons.
All Over	40,000	gallons @ \$ 5.70. - per 1,000 gallons.

Meter Size 2"

First	40,000	gallons @ \$285.85. - Minimum Bill.
All Over	40,000	gallons @ \$ 5.70. - per 1,000 gallons.

Meter Size 3"

First	100,000	gallons @ \$627.85 - Minimum Bill.
All Over	100,000	gallons @ \$ 5.70. - per 1,000 gallons.

Meter Size 4"

First	200,000	gallons @ \$1,197.85. - Minimum Bill.
All Over	200,000	gallons @ \$ 5.70. - per 1,000 gallons.

Overland Development – Same as above
Cannonsburg Water District – Same as above

All other provisions of the referenced Letter of Conditions remain in full force and unchanged.

Sincerely,



HILDA GAY ZEGG
State Director

cc: Field Director - Morehead, Kentucky
Field Specialist - Morehead, Kentucky
FIVCO ADD - Grayson, Kentucky
Randy Jones - Louisville, Kentucky
Sisler Maggard - Lexington, Kentucky
Roger Hall - Ashland, Kentucky
PSC - ATTN: Talina Mathews - Frankfort, Kentucky

ATTACHMENT 1-H



Drinking Water Project Profile

Legal Applicant:	Big Sandy Water District		
Project Title:	Scattered Site Water Service Line Replacement Project		
Project Number:	WX21127023	View Map	Submitted By: FIVCO
Funding Status:	Partially Funded		Primary County: Boyd
Project Status:	Approved		Planning Unit: Boyd
Project Schedule:	0-2 Years		Multi-County: Yes
E-Clearinghouse SAI:	KY201804110254		ECH Status: Approved
Applicant Entity Type:	Water District (KRS 74)		ADD WMC Contact: Rick Loperfido
Date Approved (AWMPC):	12-10-2015		

Project Description:

This project proposes to replace the blue max pipe service lines throughout the Big Sandy Water District distribution system with PVC. This project will impact approximately 750 customers with service lines of distances from 50 - 900 feet. The blue max pipe was installed for two known line extension projects in 1981 and 1988. This pipe has become brittle with age and it is estimated that 75% of Big Sandy Water District's water loss is caused by leaks in the service lines.

This project will also include the relocation and directional bores for some service lines and multiple main line stream crossings in an effort to improve the system's efficiency and prevent future service disruptions.

Two water booster pump stations will be upgraded, three water booster pump stations will have new controls, and one water booster pump station will be relocated/rebuilt.

Eight water tanks will be cleaned sandblasted, repaired and repainted.

New office building.

Need for Project:

Briefly describe how this project promotes public health or achieves and/or maintains compliance with the Clean Water Act or Safe Drinking Water Act:

This project is needed to reduce Big Sandy Water District's water loss (estimated at 31% by District). It is crucial that the District conserves as much water as possible for conservation and economic of purchasing water that is bought and never consumed. During drought events, such as the area water shortage in the winter of 2015, high water loss taxes all the supplies. Also, by reducing the water loss in the distribution system, the District can provide customers with safe drinking water at affordable rates.

Multiple service crossings of streams and main line crossings of streams are exposed, etc. and will be directional drilled below stream bases.

Two pump stations need new buildings, pumps, and VFD pumps. Three pump stations need new VFD controls, and one pump station needs to be relocated and rebuilt. All above work to the stations will add great efficiencies to the system.

All ten water tanks owned by the District have been inspected by outside professionals and recommendations for repairs and repainting have been made for eight tanks. These tanks are all 20-31 years old.

The existing office building is a 20+ year old double wide mobile home adapted to office space. The building is seriously deteriorated, not properly handicap accessible, lacks filing and storage space, adequate meeting room, etc.

Project Alternatives:

Alternate A:

An alternative to this project would be to focus repair efforts on water mains instead of service lines to reduce water loss; however since the blue max pipe service lines contribute to 75% of the system's water loss, it is efficient and cost effective to proceed with the proposed project at this time.

The pump stations must be upgraded. An alternate would be to not add VFD controls. However, the VFD's (variable frequency drives) allow more efficient alternatives to the efficient operation of the system.

Alternate B:

Another alternative to this project is to increase the water supply available to the system to reduce the risk of water shortage; however, this is not a economically or environmentally efficient option.



Drinking Water Project Profile

WX21127023 - Big Sandy Water District
Scattered Site Water Service Line Replacement Project

Legal Applicant:

Entity Type: **Water District (KRS 74)** PSC Group ID: **18800**
 Entity Name: **Big Sandy Water District**
 Web URL:
 Office EMail: **b.district@worldnet.att.net**
 Office Phone: **606-928-2075** Toll Free: Fax: **606-928-8454**

Mail Address Line 1: **18200 Ky State Route 3** Phys Address Line 1:
 Mail Address Line 2: Phys Address Line 2:
 Mail City, State Zip: **Catlettsburg, KY 41129** Phys City, State Zip:

Contact: **Teresa Brown** Financial Contact: Auth Official: **Paul Thomas**
 Contact Title: **Office Mgr** Financial Contact Title: Auth Official Title: **Chairman**
 Contact EMail: **bdistrict@windstream.net** Financial Contact EMail: Auth Official EMail: **bdistrict@windstream.net**
 Contact Phone: **606-928-2075** Financial Contact Phone: Auth Official Phone: **606-928-2075**

Data Source: **Kentucky Infrastructure Authority**

Date Last Modified: 04.20.2015

Project Administrator (PA) Information

Name: **Joe Sisler**
 Title: **Pe**
 Organization: **Sisler Maggard Engineering Ppl**
 Address Line 1: **220 E Reynolds Rd Ste-A3**
 Address Line 2:
 City: **Lexington** State: **KY** Zip: **40517**
 Phone: **859-271-2978** Fax: **859-271-5670**

Applicant Contact (AC) Information

Name: **James Blanton**
 Title: **Manager**
 Organization: **Big Sandy Water District**
 Address Line 1: **18200 Ky St Route 3**
 Address Line 2:
 City: **Catlettsburg** State: **KY** Zip: **41129**
 Phone: **606-928-0275** Fax:

Estimated Budget

Project Cost Categories:	
Cost Category	Cost
Administrative Expenses:	\$ 5,000
Legal Expenses:	\$ 22,000
Land, Appraisals, Easements:	\$ 40,000
Relocation Expenses & Repayments:	
Planning:	\$ 20,000
Engineering Fees - Design:	\$ 143,000
Engineering Fees - Construction:	
Engineering Fees - Inspection:	\$ 87,000
Engineering Fees - Other:	\$ 39,000
Construction:	\$ 1,660,000
Equipment:	
Miscellaneous:	\$ 34,000
Contingencies:	\$ 170,000
Total Project Cost:	\$ 2,220,000

Construction Cost Categories:	
Cost Category	Cost
Treatment:	
Transmission & Distribution:	\$ 736,000
Source:	
Storage:	\$ 700,000
Purchase of Systems:	
Restructuring:	
Land Acquisition:	
Non-Categorized:	\$ 224,000
Total Construction Cost:	\$ 1,660,000
Total Sustainable Infrastructure Costs:	

Note: Total Sustainability Infrastructure Costs are included within construction and other costs reported in this section. This breakout is provided for SRF review purposes.



Drinking Water Project Profile

WX21127023 - Big Sandy Water District
Scattered Site Water Service Line Replacement Project

Project Funding Sources:

Total Project Cost: **\$2,220,000**

Total Committed Funding: **\$50,000**

Funding Gap: **\$2,170,000 (Partially Funded)**

This project will be requesting SRF funding for fiscal year 2021.

Estimated Project Schedule:

Est. Environmental Review Submittal Date: **01-01-2017**

Estimated Bid Date: **06-01-2017**

Estimated Construction Start Date: **08-01-2017**

Estimated Construction Completion Date: **10-30-2017**

Funding Source	Loan or Grant ID	Fiscal Year	Amount	Status	Applicable Date
Local		2017	\$50,000	Committed	12/19/2016
KIA SRF Fund F Loan (DW)	F17-009	2017	\$725,000	Expired	6/30/2017
USDA RD Loan		2017	\$1,550,000	Anticipated	
USDA RD Grant		2017	\$600,000	Anticipated	
Total Committed			\$50,000		

Funding Source Notes:

The following systems are beneficiaries of this project:

KY0100944 Big Sandy Water District

Note: Check mark indicates primary system for this project.

Project Ranking by AWMPC:

Regional Ranking(s): _____

Planning Unit Ranking: _____

Total Points: _____

- Plans and specs have been sent to DOW.
- Plans and specs have been reviewed by DOW.
- Plans and specs have been sent to PSC.
- Plans and specs have been reviewed by PSC.

Economic, Demographic and Geographic Impacts

Economic Impacts	
Jobs Created:	
Jobs Retained:	

*Demographic Impacts (GIS Census Overlay)			
Serviceable Demographic	Project Area	Included Systems	Included Utilities
Population:	3,092	13,952	13,952
Households:	1,270	6,020	6,020
MHI:	\$47,212	\$39,918	*\$39,918
MHI MOE	\$8,235	\$7,180	*\$7,180
MOE as Pct:	17%	18.0%	18.0%
**NSRL:		1	1

Population and household counts are based on 2010 census block values from the SF1 (100%) dataset.

MHI Source is from the American Community Survey 2013-2017 5Yr Estimates (Table B19013) *(for the primary system operated by the above listed beneficiary utilities).

MHI MOE = Med HH Income Margin of Error.

** NSRL (Non-Standard Rate Levels):
 0 = Income above Kentucky MHI (KMHI).
 1 = Income between 80% KMHI and KMHI.
 2 = Income less than or equal to 80% KMHI.
 - KMHI = \$46,535
 - 80% KMHI = \$37,228



Drinking Water Project Profile

WX21127023 - Big Sandy Water District
Scattered Site Water Service Line Replacement Project

New Customers	
New Residential Customers:	
New Commercial Customers:	
New Institutional Customers:	
New Industrial Customers:	

New or Improved Service		
Service Demographic	Survey Based	Census Overlay*
To Unserved Households:		
To Underserved Households:	700	1,270
To Total Households:	700	1,270
** Cost Per Household:	\$3,171	

* GIS Census block overlay figures are estimates of population and households potentially served by systems and projects based on a proximity analysis of relevant service lines to census block boundaries.

** Cost per household is based on surveyed household counts, not GIS overlay values.

Geographic Impacts For Project Area

Counties
Boyd
Carter
Lawrence

Legislative Districts	
District Name	Legislator
House 096	Kathy Hinkle
House 100	Terri Branham Clark
Senate 18	Robin L. Webb
Senate 31	Phillip Wheeler
Congressional 5	Hal Rogers

Groundwater Sensitivity Zones

HUC 10 Watersheds	
HUC Code	Watershed Name
0507020305	Georges Creek-Levisa Fork
0507020402	Middle Blaine Creek
0507020403	Lower Blaine Creek
0507020404	Whites Creek-Big Sandy River
0509010402	Little Fork Little Sandy River
0509010403	Middle Little Sandy River
0509010404	East Fork Little Sandy River
0509010405	Lower Little Sandy River

Geographic Impacts For Included System(s)

Counties
Boyd
Carter
Johnson
Lawrence

Legislative Districts	
District Name	Legislator
House 096	Kathy Hinkle
House 097	Bobby McCool
House 100	Terri Branham Clark
Senate 18	Robin L. Webb
Senate 30	Brandon Smith
Senate 31	Phillip Wheeler
Congressional 5	Hal Rogers



Drinking Water Project Profile
 WX21127023 - Big Sandy Water District
 Scattered Site Water Service Line Replacement Project

DW Specific Impacts:

- This project relates to a public health emergency.
- This project will assist a non-compliant system to achieve compliance.
- This project will assist a compliant system to meet future requirements
- This project will provide assistance not compliance related.
- This project is necessary to achieve full or partial compliance with a court order, agreed order, or a judicial or administrative consent decree.
- Primary system has not received any SDWA Notices of Violation within the previous state fiscal year-July through June, i.e. July 2014 – June 2015).

Project Inventory (Mapped Features):

Mapped Line Features						
DOW Permit ID	Line Type	Purpose	Activity	Size (in.)	Material	Length (LF)
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	0.75	PVC	199
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	1.00	PVC	9,479
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	2.00	PVC	1,080
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	3.00	PVC	109,251
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	4.00	PVC	125,245
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	6.00	PVC	112,806
KY0100944	WATER LINE: FINISHED	DISTRIBUTION	REHAB - REPLACE PROBLEM LINES	8.00	PVC	54,133
					Total Length	412,193

Administrative Components:

- Planning
 Design
 Construction
 Management

Regionalization Components:

Public Water Systems Eliminated:

- this project includes the elimination of public water system(s) through merger or acquisition.

Water Treatment Plants Eliminated:

- This project includes the elimination of water treatment plant(s) through interconnect(s).

Supplementation of Raw Water Supply:

- This project includes supplementing the existing raw water supply.

Supplementation of Potable Water Supply:

- This project includes supplementing the existing potable water supply.

Emergency Only Water Supply:

- This project provides emergency only water supply.



Drinking Water Project Profile

WX21127023 - Big Sandy Water District
Scattered Site Water Service Line Replacement Project

Water Source Protection:

- This project includes land acquisition for water source protection.

Water Treatment Components:

- This project includes water treatment components

Treatment Activities:

- This project includes a new water treatment plant.
- This project includes an expansion of an existing water treatment plant.
- This project includes rehabilitation of an existing water treatment plant.
- This project includes upgrades to an existing water treatment plant.
- This project includes emergency power generators for treatment activities.
- This project includes redundant treatment processes.

Acute Public Health Risk:

- This project includes infrastructure options to meet Cryptosporidium removal/inactivation requirements.
- This project includes infrastructure options to meet CT inactivation requirements.

Chronic Public Health Risk:

- This project includes treatment modifications to meet the Disinfectants/Disinfection Byproducts Rule at the water treatment plant.
- This project will provide treatment modifications for VOCs, IOCs, SOC, or Radionuclides.

Secondary Contaminants:

- This project includes treatment modifications to address Secondary Contaminants.

Security:

- This project includes security components for water treatment facilities.

Water Distribution and Storage:

- This project includes water distribution and/or storage components.

Water Line Extensions:

- This project includes water line extension(s).

Redundancy Components:

- This project includes emergency power generators for distribution and/or storage activities.

Number of units provided: **0**

- This project includes redundant distribution and/or storage processes.



Drinking Water Project Profile

WX21127023 - Big Sandy Water District
Scattered Site Water Service Line Replacement Project

Finished Water Quality:

- This project includes infrastructure to address inadequate water turnover and disinfection byproducts (DBPs).
- This project includes infrastructure to address inability to maintain disinfection residual.

Water Line Replacement:

- This project replaces problem water lines (breaks, leaks, or restrictive flows due to age), water lines consisting of lead and/or asbestos-cement (AC), and/or inadequately sized water lines.

Total length of line replacement: **412,193**

Roads Serviced by Line Replacements:	
Road Name	LF Serviced
Mable Lane	325
Shepherd Branch Road	350
Hylton Road	352
Misty Lane	396
Dry Ridge Road	450
Ced Gap Park Road	463
Cat Tail Drive	650
Lake Ridge Road	717
Hwy 707	1,130
Tate Hollow Road	1,450
Ced Gap Road	1,550
Torchlight Road	1,850
Middleton Lane	2,250
Total LF Serviced	11,933

Water Storage and Pressure Components:

- This project includes the construction of new water tank(s).
- This project includes the replacement of existing water tank(s).
- This project includes the rehabilitation of existing water tank(s).

Number of rehabilitated tanks: **0**

- This project includes the construction of new pump station(s).

Number of new pump stations: **0**

- This project includes the rehabilitation of existing pump station(s).

Number of rehabilitated pump stations: **0**

Security:

- This project includes security components for water distribution infrastructure.



Drinking Water Project Profile
 WX21127023 - Big Sandy Water District
 Scattered Site Water Service Line Replacement Project

Sustainable Infrastructure - Green Infrastructure:

Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintains and restores natural hydrology by infiltrating, evapotranspiring and harvesting and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains, and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site and neighborhood-specific practices, such as:

Component	Cost
<input type="checkbox"/> Bioretention	
<input type="checkbox"/> Trees	
<input type="checkbox"/> Green Roofs	
<input type="checkbox"/> Permeable Pavement	
<input type="checkbox"/> Cisterns	
Total Green Infrastructure Cost:	\$0

There are no Green Infrastructure components specified for this project.

Sustainable Infrastructure - Water Efficiency:

The use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future. Examples include:

Component	Cost
<input type="checkbox"/> Installing or retrofitting water efficient devices such as plumbing fixtures and appliances (toilets, showerheads, urinals).	
<input type="checkbox"/> Installing any type of water meter in previously unmetered areas (can include backflow prevention if in conjunction with meter replacement).	
<input type="checkbox"/> Replacing existing broken/malfunctioning water meters with AMR or smart meters, meters with leak detection, backflow prevention.	
<input type="checkbox"/> Retrofitting/adding AMR capabilities or leak equipment to existing meters.	
<input type="checkbox"/> Conducting water utility audits, leak detection studies, and water use efficiency baseline studies, which are reasonably expected to result in a capital project or in a reduction in demand to alleviate the need for additional capital investment.	
<input type="checkbox"/> Developing conservation plans/programs reasonable expected to result in a water conserving capital project or in a reduction in demand to alleviate the need for capital investment.	
<input type="checkbox"/> Recycling and water reuse projects that replace potable sources with non-potable sources (Gray water, condensate, and wastewater effluent reuse systems, extra treatment or distribution costs associated with water reuse).	
<input type="checkbox"/> Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems.	
<input type="checkbox"/> Water meter replacement with traditional water meters.*	
<input type="checkbox"/> Distribution pipe replacement or rehabilitation to reduce water loss and prevent water main breaks.*	
<input type="checkbox"/> Storage tank replacement/rehabilitation to reduce water loss.*	
<input type="checkbox"/> New water efficient landscape irrigation system, where there currently is not one.*	
Total Water Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Water Efficiency components specified for this project.



Drinking Water Project Profile
 WX21127023 - Big Sandy Water District
 Scattered Site Water Service Line Replacement Project

Sustainable Infrastructure - Energy Efficiency:

Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water projects, use energy in a more efficient way, and/or produce/utilize renewable energy. Examples include:

Component	Cost
<input type="checkbox"/> Renewable energy projects, which are part of a public health project, such as wind, solar, geothermal, and micro-hydroelectric that provides power to a utility.	
<input type="checkbox"/> Utility-owned or publicly-owned renewable energy projects.	
<input type="checkbox"/> Utility energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas.	
<input type="checkbox"/> Energy efficient retrofits, upgrades, or new pumping systems and treatment processes (including variable frequency drives (VFDs)).*	
<input type="checkbox"/> Pump refurbishment to optimize pump efficiency.*	
<input type="checkbox"/> Projects that result from an energy efficient related assessment.*	
<input type="checkbox"/> Projects that cost effectively eliminate pumps or pumping stations.*	
<input type="checkbox"/> Projects that achieve the remaining increments of energy efficiency in a system that is already very efficient.*	
<input type="checkbox"/> Upgrade of lighting to energy efficient sources.*	
<input type="checkbox"/> Automated and remote control systems (SCADA) that achieve substantial energy savings.*	
Total Energy Efficiency Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Energy Efficiency components specified for this project.

Sustainable Infrastructure - Environmentally Innovative:

Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way. Examples include:

Component	Cost
<input type="checkbox"/> Total integrated water resources management planning, or other planning framework where project life cycle costs are minimized, which enables communities to adopt more efficient and cost-effective infrastructure solutions.	
<input type="checkbox"/> Plans to improve water quantity and quality associated with water system technical, financial, and managerial capacity.	
<input type="checkbox"/> Source water protection planning (delineation, monitoring, modeling).	
<input type="checkbox"/> Planning activities to prepare for adaptation to the long-term effects of climate change and/or extreme weather.	
<input type="checkbox"/> Utility sustainability plan consistent with EPA's sustainability policy.	
<input type="checkbox"/> Greenhouse gas inventory or mitigation plan and submission of a GHG inventory to a registry as long as it is being done for an SRF eligible facility.	
<input type="checkbox"/> Construction of US Building Council LEED certified buildings, or renovation of an existing building.	
<input type="checkbox"/> Projects that significantly reduce or eliminate the use of chemicals in water treatment.*	
<input type="checkbox"/> Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals.*	
<input type="checkbox"/> Trenchless or low impact construction technology.*	
<input type="checkbox"/> Using recycled materials or re-using materials on-site.*	
<input type="checkbox"/> Educational activities and demonstration projects for water or energy efficiency (such as rain gardens).*	
<input type="checkbox"/> Projects that achieve the goals/objectives of utility asset management plans.*	
Total Environmentally Innovative Cost:	\$0

** Indicates a business case may be required for this item.*

There are no Environmentally Innovative components specified for this project.



Drinking Water Project Profile
WX21127023 - Big Sandy Water District
Scattered Site Water Service Line Replacement Project

Sustainable Infrastructure - Asset Management:

If a category is selected, the applicant must provide proof to substantiate claims. The documents must be submitted to Anshu Singh (Anshu.Singh@ky.gov) for CW projects

Component

Last Rate Adjustment Date: **01-01-2017** [Download Fee Schedule](#)

Rate Adjustment Age: **36 months**

System's monthly water bill, based on 4,000 gallons, as a percentage of MHI: **1.29%**

- The system(s) has a Capital Improvement Plan or similar planning document.
- The system(s) involved in this project have specifically allocated funds for the rehabilitation and replacement of aging and deteriorating infrastructure.

Project Status: Approved

Date Approved: 12-10-2015

Date Revised:

BIG SANDY WATER DISTRICT

**Response to Commission Staff's Request for Information Dated July 25, 2019
Case No. 2019-00041**

Question No. 9

Responding Witnesses: Joseph F. Sisler

- Q-2. As part of the utility's most recent rate filing under KRS 278.023, the USDARD loan process includes conditions that the utility must meet and agree to in order to have loans approved.**
- a. Refer to paragraph 10, Business Operations, of the USDA-RD Loan Application that reads in part, the "District will be required to furnish a prior approved management service plan to include, as a minimum, provisions for management, maintenance, meter reading, miscellaneous services, billing, collecting, delayed payment penalties, disconnect/reconnect fees, bookkeeping, making and delivering required reports and audits." Explain whether the utility furnished a management plan to USDARD as a part of its loan application process.**
 - b. Under paragraph 33, Rates and Charges, of the USDA-RD Loan Application the first sentence reads, "Rates and charges for facilities and services rendered by the District must be at least adequate to meet cost of maintaining, repairing and operating the water system and meeting required principle and interest payments and the required deposits to debt service and/or depreciation reserve." Explain whether the rates listed in that application are contributing toward depreciation reserve and, if so, state how much is being contributed on a monthly basis.**
- A-2.**
- a. See Response to Question 1, Attachment 1-E.
 - b. Big Sandy Water District believes that rates set forth in the revised letter of conditions provides rates that will allow for a monthly contribution of \$8,313 to its depreciation reserve.