COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF	**)**	
BIG SANDY WATER DISTRICT	**)**	
FOR A CERTIFICATE OF PUBLIC	**)**	
CONVENIENCE AND NECESSITY TO	**)**	
DEPLOY AN ADVANCED METERING	**)**	**Case No. 2023-00163**
INFRASTRUCTURE AND	**)**	
GEOGRAPHIC INFORMATION SYSTEM,	**)**	
ISSUANCE OF EVIDENCE OF	**)**	
INDEBTEDNESS, AND REQUEST FOR	**)**	
EXPEDITED RELIEF	**)**	

APPLICATION

Big Sandy Water District ("Big Sandy District" or "Applicant"), by counsel, and pursuant to KRS 278.020(1), KRS 278.300, 807 KAR 5:001 § 15, 807 KAR 5:001 § 18, and other applicable law, hereby applies for an Order: (i) granting Big Sandy District a Certificate of Public Convenience and Necessity ("CPCN") to deploy an advanced metering infrastructure ("AMI") system and a geographic information system ("GIS," and collectively the "Leak Reduction Project");[1] (ii) authorizing Big Sandy District to issue bonds to finance the project; and (iii) afford Big Sandy District expedited relief to ensure it can secure favorable terms for the project, including proceeding pursuant to the RFP response presented by Integrity Water and Energy.

In support of the Application, and in compliance with the rules and regulations of the Commission, Applicant respectfully states as follows:

[1] If the Commission grants a CPCN for the Leak Reduction Project, Big Sandy District anticipates filing an amended Infrastructure Improvement Plan in Case No. 2022-00301 to account for the project as approved by the Commission.

I. INTRODUCTION

1. Big Sandy District has initiated this project to ameliorate issues with unaccounted-for water loss. For the year ending December 31, 2022, Big Sandy District experienced unaccounted-for water loss of 42 percent.

2. Through this proceeding, Big Sandy District seeks to take steps to reduce its water loss percentage by entering into a contract with Integrity Water and Energy, LLC ("Integrity"), which will implement the Leak Reduction Project.

3. The Leak Reduction Project consists of four key changes: (i) implementation of GIS mapping; (ii) replacing existing meters with Neptune AMI meters to establish automatic meter readings; (iii) establishing 27 District Metering Areas ("DMAs"); and (iv) building and installing a daily leak detection notification tool. These four key changes (as well as additional improvements) will be detailed further in the project description below.

4. Through implementation of GIS mapping of the Big Sandy District footprint, which will be constructed in phases, the Leak Reduction Project is anticipated to reduce unaccounted-for water loss by 13%.

5. Additionally, implementation of AMI is estimated to increase water meter accuracy by 5.5%, which is expected to increase Big Sandy District revenue by more accurately recording the volume of water consumed by Big Sandy District customers.

6. Finally, Integrity has guaranteed new revenue and a savings during year 1 equal to $316,029.

7. As a result of the net cost savings achieved by the Leak Reduction Project, no rate increases will be needed as a result of the Leak Reduction Project.

II. BACKGROUND

8. The full name and mailing address of Big Sandy Water District is: Big Sandy Water District, 18211 State Route 3, Catlettsburg, Kentucky 41129. Its email address is bdistrict@windstream.net. Its telephone number is (606) 928-2075.

9. Applicant provides water service to portions of Boyd, Carter, Johnson, and Lawrence Counties, Kentucky. In its operations for the year ending December 31, 2022, Applicant's gross annual revenues from water service did not exceed $5,000,000.

10. Big Sandy District is a water district organized pursuant to the provisions of KRS Chapter 74. Big Sandy District is also a governmental agency within the meaning of KRS 82.083(4)(a).

11. Applicant is not a corporation, limited liability company, or limited partnership. As a result, it has no articles of incorporation, operating agreement, or partnership agreements.

III. PROJECT DESCRIPTION

12. Big Sandy District has approximately 5,000 water meters in its service territory, which stretches approximately 500 miles, ranging as far north as Boyd and Carter counties to as far south as Johnson County. Due to the size and scope of the system, accurately identifying the sources of water loss along the system and manually reading water meters is a time-intensive and costly process.

13. Consistent with KRS 424.130, on January 27, 2023, Big Sandy District issued a Request for Proposals (the "RFP") seeking bidders to present a proposal to assist Big Sandy District with its water loss reduction efforts. A copy of the Public Notice is attached hereto as Exhibit 1. The purpose of the Leak Reduction Project was to invest in new technologies that will allow Big Sandy District to more efficiently and economically decrease its water loss.

14. The only responding bidder putting forth a proposal in response to the RFP was Integrity. A copy of the proposal received from Integrity is attached as CONFIDENTIAL Exhibit 2 (the "Integrity Proposal").

15. On March 17, 2023, the Big Sandy District Board voted to accept the Integrity Proposal to implement the Leak Reduction Projection, subject to Commission approval of the relief requested in this Application. If Commission approval is received, Big Sandy District will enter into a contract with Integrity, consistent with the terms contained in the RFP. A copy of the Letter of Intent executed with Integrity is attached hereto as Exhibit 3.

16. The proposed Leak Reduction Project will achieve several operational efficiencies, recapture lost revenue, and provide benefits to consumers. The Leak Reduction Project will occur in three phases, each with their own substantive benefits.

A. Phase One – Leak Detection

17. Currently, to detect leaks on its system, Big Sandy District performs daily reads of all of its master meters, as well as telemetry checks on its water tanks multiple times a day. The District also walks its service lines as time allows, using a listening device where needed. The Leak Reduction Project is designed to allow Big Sandy District to utilize new technologies to better perform its leak detection activities.

18. The first phase of the Leak Reduction Project principally concerns existing leak detection and construction of a geographic information system (GIS).

19. First, Applicant and Integrity will rely on acoustic leak detection methods to listen for audible leak noises within the system by relying on customer addresses already in the system. At the same time the acoustic leak tests are performed, Integrity will build out GIS mapping of Big Sandy District's facilities. Based upon the results of the acoustic leak detection, Integrity will

place temporary sensors to continually listen for noise, further narrowing down the source of leaks. This will be conducted by zones, until the entire Big Sandy District service area is covered.

20. While the first phase focuses on identification and mapping, the second phase is concerned with repair. Generally, Applicant and Integrity will focus on larger leaks in the system that require more extensive technical work.

21. The final stage of the Leak Reduction Project is planning for the future. Integrity will assist with creating new zones within Big Sandy District's system, resulting in 27 distinct DMAs. Integrity will provide Big Sandy District with the capability to engage in daily leak detection by each DMA. This will allow Big Sandy District to better isolate the area in which a leak is occurring, so that its efforts at locating and remedying the leak are much quicker. In fact, the services provided by Integrity will not only allow Big Sandy District to determine its total water loss, but will also allow Big Sandy District to track water loss by each specific DMA, further clarifying where best to devote Big Sandy District's resources. The development of the DMA zones will also include an automated monthly water report for each zone that will indicate the percentage of unaccounted-for water loss in each zone. Through the utilization of these zones, Applicant will be able to isolate leaks and reduce their water loss.

22. Further, as part of the project, Integrity will provide the equipment needed to better identify leaks, such as listening sticks, ground microphones, and correlators. Just as important for a more efficient leak detection program in the future, Integrity has secured manufacturer-led training on using the equipment to improve Big Sandy District's leak detection without external resources.

23. Accordingly, the Leak Reduction Project is expected to result in a short-term, immediate reduction in existing water loss and also provide the long-term tools to sustain the decrease in water loss.

B. Phase Two - AMI Meter Installation

24. Big Sandy District currently has approximately 4,600 residential meters and 168 commercial and "other" meters. These meters were manufactured by Neptune, the vast majority of which are over 10 years old. In early 2020, Big Sandy District did replace approximately 1,500 meters, which are not static meters. However, many of these meters are already experiencing failures and errors. Accordingly, Big Sandy District believes it is in the best interests of its system and customers to upgrade all meters to AMI meters to take advantage of the manufacturer warranty described below, the additional guarantees offered by Integrity, and the expected benefits of transitioning to a static ultrasound meter.

25. Big Sandy District proposes to upgrade its current meters to Neptune MACH 10 residential or commercial meters, which Integrity has guaranteed will be 90% accurate for up to a 20-year period. The MACH 10 meter is a static ultrasound meter, containing no moving parts. Due to having no moving parts, the MACH 10 is not as susceptible to wear and tear and accuracy over the life of the meter is not expected to diminish. The MACH 10 is lead free and NSF/ANSI 61-G approved.

26. Consistent with the requirements of 807 KAR 5:066 § 15(2), Neptune tests each of its meters for accuracy and the meters are designed to comply with the flow rates established in 807 KAR 5:066 § 15(2)(a). Proof of these test results will be provided to Big Sandy District at the time of delivery.

27. The residential and commercial MACH 10 meters are backed by a 20-year manufacturer warranty. The first 10 years of the warranty the meters are fully warranted by Neptune. For the second 10 years, the warranty is prorated to account for the age of the meter.

28. The MACH 10 meters are capable of remote reading through access to a cellular communications network. Due to the geography of Big Sandy District's territory and that some of its customers live in somewhat remote locations, Integrity has guaranteed that at least 83% of the MACH 10 meters will be capable of remote readings through access to a cellular network. For the remaining meters, it is anticipated that radio reads will still be required.

29. The new metering system will provide for daily water loss detection, automatic billing, and alarm notifications based on water loss or other critical issues. The automatic billing feature reduces the need for physically driving the entire Bluegrass Water system (approximately 500 miles), saving time and increasing efficiency. Similarly, the Applicant will be able to retrieve metering data without having to physically visit the meter, enabling quick and easy customer service.

30. Currently, Big Sandy District uses its employees to read its approximately 5,000 water meters over an approximately 500 mile territory. It is expected that the new meters will eliminate the need for in-person meter readings, resulting in estimated operational savings to Big Sandy District of $12,770 per year.

31. Additionally, the implementation of the AMI meters will provide real-time notifications including, but not limited to: customer leak notifications, reverse flow alerts, empty pipe alerts, and low battery alerts.

32. Over the next twenty years, the Leak Reduction Project is estimated to result in a net financial benefit to Big Sandy District of $1,358,253. A chart of the financial projections,

showing the total costs of the project (including the debt service for which approval is sought herein), as well as additional projected revenue is attached hereto as Page 22 of Exhibit 2.

33. In addition to initial implementation of the Leak Reduction Project, Integrity will provide training to Big Sandy District employees to assist those employees in leak detection utilizing the implemented technologies, as well as providing additional annual services related to the AMI implementation.

34. Big Sandy District did not receive any additional responses to its RFP for these services. Moreover, Big Sandy District has considered its ability to perform similar services with existing employees and technological capabilities. Simply put, Big Sandy District does not believe similar results could be achieved without the expertise of an outside partner, such as Integrity Water.

35. Pursuant to 807 KAR 5:001 § 15(2)(a), Big Sandy District respectfully submits that the foregoing facts show that the Leak Reduction Project serves the public convenience and necessity.

IV. CPCN FOR CONSTRUCTION FILING REQUIREMENTS

36. Pursuant to 807 KAR 5:001 § 15(2)(b), Big Sandy District states that no franchises or permits not previously filed with the Commission are required for the Leak Reduction Project.

37. Pursuant to 807 KAR 5:001 § 15(2)(c), Big Sandy District states that the Leak Reduction Projection will not result in an extension or new construction, but is a modification to its existing infrastructure. This will result in GIS location of its existing service lines and replacement of its current meters with AMI meters. As a result, there are no public utilities, corporations, or persons with whom this construction is expected to result in additional competition.

38. Pursuant to 807 KAR 5:001 § 15(2)(d)(1), Big Sandy District attaches hereto as Exhibit 4 a map of its existing system, which is the area in which the Leak Reduction Project will be implemented. A separate route map has not been prepared for the Leak Reduction Project. As a result, to the extent necessary, Big Sandy District contemporaneously files a Motion for Deviation from 807 KAR 5:001 § 15(2)(d)(1).

39. Pursuant to 807 KAR 5:001 § 15(2)(d)(2), Big Sandy District states that to the extent plans, specifications, or drawings currently exist they are included among the RFP provided by Integrity and attached hereto as Exhibit 2. To the extent necessary, Big Sandy District contemporaneously files a Motion for Deviation from 807 KAR 5:001 § 15(2)(d)(2).

40. As is more fully explained below in its request for approval of issuance of bonds, pursuant to 807 KAR 5:001 § 15(2)(e), Big Sandy District proposes to finance the Leak Reduction Project through a bond issuance. The total cost of the Leak Reduction Project is $3,991,369, which will be fully financed through the bond issuance.

41. Pursuant to 807 KAR 5:001 § 15(2)(f), the estimated annual cost of operation after the proposed facilities are placed into service is $2,676,843. As is explained above, through leak detection and more accurate meters, the Leak Reduction Project is expected to result in a net annual savings of $316,029. Due to the technology of the AMI meters, specifically that the AMI meters have no moving parts, the anticipated annual operational and maintenance costs of the AMI meters is negligible, if any at all.

42. At this time, and as a result of the Leak Reduction Project consisting of replacement or improvement to existing infrastructure, Big Sandy District has no engineering plans or specifications in compliance with KRS 322.340, as engineering plans requiring certification have

not been prepared. Contemporaneously herewith, Big Sandy District files a Motion for Deviation from KRS 322.340, to the extent necessary.

V. FINANCING FILING REQUIREMENTS

43. Pursuant to KRS 278.300(2), the request for a CPCN for issuance of indebtedness is made under oath, with the verification of Paul Thomas, Chairman of Big Sandy District attached hereto.

44. Pursuant to 807 KAR 5:001 § 18(1)(b), a description of Big Sandy District's water system and its property at original cost by account is contained in its 2022 Annual Report (as amended by the amended gross revenue report filed with the Commission on May 19, 2023), which is on file with the Commission and incorporated herein by reference.

45. Pursuant to 807 KAR 5:001 § 18(1)(c), Big Sandy District attaches hereto Exhibit 5, prepared by its financial advisor, RSA Advisors, LLC, which contains the amount of the bonds Big Sandy District desires to issue, the terms, and the rate of interest. The terms included in Exhibit 5 are estimates based upon current market conditions, and the final terms will not be capable of determination until closing.

46. Further, pursuant to 807 KAR 5:001 § 18(1)(c), Big Sandy District provides the following explanation regarding how the bonds are to be secured. Big Sandy District's obligation with the Kentucky Bond Corporation ("KBC") will be represented by a Lease Agreement entered into by Big Sandy District and KBC. Big Sandy District's repayment obligations to KBC under the Lease Agreement will be secured by a pledge of Big Sandy District's revenues on a parity with the Big Sandy District's other first-lien debt. Big Sandy District will also agree to comply with annual debt service coverage requirements and additional debt service coverage requirements commensurate with those already in place with its other first lien debt.

47. Pursuant to 807 KAR 5:001 § 18(1)(d), Big Sandy District states that the bond proceeds will be used to fund the Leak Reduction Project described herein. No amounts will be used to discharge or refund any obligations.

48. Pursuant to 807 KAR 5:001 § 18(1)(e), Big Sandy District states that the property to be acquired with the funds consists of the GIS and AMI equipment described herein to complete the Leak Reduction Project, as well as services provided by Integrity. Big Sandy District has not yet negotiated and executed a contract with Integrity, but intends to do so upon approval of this Application by the Commission. A copy of the contract proposed by Integrity is attached hereto as Exhibit 6.

49. Pursuant to 807 KAR 5:001 § 18(1)(f), Big Sandy District states that the bond issuance is not proposed to discharge or refund any outstanding obligations.

50. Pursuant to 807 KAR 5:001 § 18(1)(g), Big Sandy District contemporaneously requests a deviation from the waiver to attach notice to the Local Debt Officer with its Application. The Department of Local Government ("DLG") requires that notice be provided following the sale of the bonds so that DLG has notice of all final terms of the issuance, which such sale will only occur if the Commission grants the relief requested herein. As a result, Big Sandy District has provided a draft form notice for the Commission's review as Exhibit 7, and Big Sandy District agrees to file a copy of the as-sent notice in the post-case file, assuming the relief is granted by the Commission.

51. Pursuant to 807 KAR 5:001 § 18(2)(a) and 807 KAR 5:002 § 12, the required Financial Exhibit is attached hereto as Exhibit 8.

52. Pursuant to 807 KAR 5:001 § 18(2)(b), Big Sandy District states that there are no outstanding trust deeds or mortgages as of the filing of this Application.

53. Pursuant to 807 KAR 5:001 § 18(2)(c), Big Sandy District attaches hereto as Exhibit 4 a copy of its existing system, which is the area in which the Leak Reduction Project will be implemented. A separate route map has not been prepared for the Leak Reduction Project. As a result, to the extent necessary, Big Sandy District contemporaneously files a Motion for Deviation from 807 KAR 5:001 § 18(c)'s requirement to provide a map or plans of the proposed property.

54. Pursuant to 807 KAR 5:001 § 18(c), estimates of the proposed property to be acquired in the Leak Reduction Project according to Commission prescribed uniform system of accounts is attached hereto as Exhibit 9. Estimates of the cost of the project are contained in Exhibit 2.

55. Pursuant to 807 KAR 5:001 § 18(2) and 807 KAR 5:001 § 12(1)(b), Big Sandy District states that it had less than $5,000,000 in gross annual revenue in the past calendar year and states that no material changes have occurred since the end of the twelve (12) month period contained in Big Sandy Water District's last annual report (as amended) filed with the Commission.

VI. REQUEST FOR EXPEDITED RELIEF

56. Big Sandy District respectfully requests that the Commission enter an Order in this matter as expeditiously as possible to allow Big Sandy District to take advantage of the current proposal of the Leak Reduction Project.

57. Big Sandy District accepted the bid on March 17, 2023.

58. Since accepting the bid, Big Sandy District has been working as expeditiously as possible to prepare and submit its Application.[2]

59. Integrity has expressed concern with continued inflationary pressures related to its bid and the work contemplated by the Leak Reduction Project.

60. Further, due to current economic conditions and continuing increases to borrowing costs, Big Sandy District seeks to issue the revenue bonds as quickly as possible in hopes of obtaining the most advantageous rate.

61. Finally, Big Sandy District requests expedited relief so that it may implement the Leak Reduction Project to achieve the expected reduction in water loss as quickly as possible.

VII. RELIEF SOUGHT

62. For the foregoing reasons, Big Sandy District respectfully asks that the Commission issue an order:

a. Granting Big Sandy District a certificate of public convenience and necessity to proceed with the Leak Reduction Project;

b. Granting Big Sandy District a certificate of public convenience and necessity to issue the evidences of indebtedness described in this Application; and

c. Grant Big Sandy District the requested certificates of public convenience and necessity no later than July 31, 2023.

This the 24th day of May, 2023.

[2] Having discovered the required updates to its Annual Gross Revenue Report, Big Sandy District waited until amendment to its Annual Gross Revenue Report, which was made on May 19, 2023 (and affects the 2022 income statement and balance sheet), prior to filing this Application to ensure compliance with KRS 278.300(2), 807 KAR 5:001 § 18(2), and 807 KAR 5:001 § 12(1)(b).

Respectfully submitted,

/s/ R. Brooks Herrick
R. Brooks Herrick
Easton Depp
DINSMORE & SHOHL LLP
101 South Fifth Street
Suite 2500
Louisville, KY 40202
502.540.2300
502.585.2207 (fax)
Brooks.herrick@dinsmore.com
Easton.depp@dinsmore.com
Counsel to Big Sandy Water District

Certification

I hereby certify that a copy of this filing has been served electronically on all parties of record through the use of the Commission's electronic filing system, and there are currently no parties that the Commission has excused from participation by electronic means. Pursuant to the Commission's July 22, 2021 Order in Case No. 2020-00085, a paper copy of this filing has not been transmitted to the Commission.

/s/ R. Brooks Herrick
Counsel to Big Sandy Water District

VERIFICATION

I, Paul Thomas, the Chairman of Big Sandy Water District state that I have read the foregoing Application and Exhibits as it relates to the request for a CPCN for the Issuance of Evidence of Indebtedness, and the statements contained therein are true and correct to the best of my knowledge, information, and belief.

Paul Thomas, Chairman
Big Sandy Water District

Date: 5-22-23

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF BOYD)

Subscribed, sworn to, and acknowledged this the 22 day of May, 2023, before me, a Notary Public, in and before said County and State.

My commission expires: 6/30/2026

JESSICA SEXTON NOTARY PUBLIC COMM EXPIRES 06/30/2026 ID # KYNP54384 STATE AT LARGE, KENTUCKY

Jessica Sexton
Notary Public

APPLICATION EXHIBIT 1

Issues and
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PUBLIC NOTICE

LEGAL NOTICE

The Big Sandy Water District will be receiving responses to a Request for Proposal (RFP) of companies interested in providing a Guaranteed Energy Savings Contract.

Firms wishing to respond may request a RFP packet by contacting:

Jessica Sexton
Big Sandy Water District
18211 KY-3, Catlettsburg, KY 41129
(606) 928-2075

Responses will be due March 10 at 1:00 p.m. local time at 18211 Ky-3, Catlettsburg, Ky 41129. All submittals will be the property of the Big Sandy Water District and will not be returned. A Mandatory walk through will be held February 3rd at 1:00 P.M.

All questions concerning this RFP will be answered by contacting Jessica Sexton as listed above.

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The Independent

226 Seventeenth Street
Post Office Box 311
Ashland, Kentucky 41105-0311
606-326-2600 • 1-800-955-5860
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BIG SANDY WATER DISTRICT
OPERATION & MAINTENANCE
18211 ST. RT. 3
CATLETTSBURG KY 41129

NEWSPAPER AFFIDAVIT

I, KIM HARPER, ADVERTISING COORDINATOR OF THE DAILY INDEPENDENT NEWSPAPER PUBLISHED IN ASHLAND, AND HAVING THE LARGEST CIRCULATION OF ANY NEWSPAPER IN THE BOYD COUNTY, KENTUCKY, DO HEREBY CERTIFY THAT FROM MY OWN KNOWLEDGE AND A CHECK OF THE FILES OF THIS NEWSPAPER THAT THE FOLLOWING ADVERTISEMENT WAS INSERTED IN THE DAILY INDEPENDENT.

SIGNATURE: _____

SUBSCRIBED AND SWORN TO BEFORE ME BY THE ABOVE, THIS 27th DAY OF January, 2023

NOTARY PUBLIC Lisa K. Callihan

MY COMMISSION EXPIRES _____

Lisa K Callihan
NOTARY PUBLIC
State at Large, Kentucky
ID # KYNP1303
My Commission Expires
March 8, 2024

COMMENTS	EXPIRED DATE	AD CAPTION	#TIMES	AMOUNT
THE DAILY INDEPE 01/27/2023		ENERGY SAVINGS	1	189.60

01/27/2023

APPLICATION EXHIBIT 2

EXECUTIVE SUMMARY

BIG SANDY WATER DISTRICT
Quality on Tap

+

Integrity Water and Energy

Big Sandy Water District has an excellent opportunity to generate guaranteed new revenue and savings, creating a net financial benefit of **$1,358,253**, providing the lowest cost of ownership. At the same time, the utility can improve their operations, establishing the utility as one of the **best water utilities in the region**. These goals can be accomplished by upgrading the metering system, meter reading system, and creating a daily leak detection system. To ensure the long-term success of the utility, tools and additional specialized training will be provided to your team to continue to improve the utility long after the project. These improvements will ensure your customers receive the same great service, while also minimizing long-term water costs and risks of system outages. The new savings and increases in revenue are currently estimated to be **$316,029** annually and will be finalized and guaranteed in the contract. The figure below illustrates a guaranteed reduction in Non-Revenue Water (NRW), improving your system from 42% to a guaranteed 29% after the project completion.

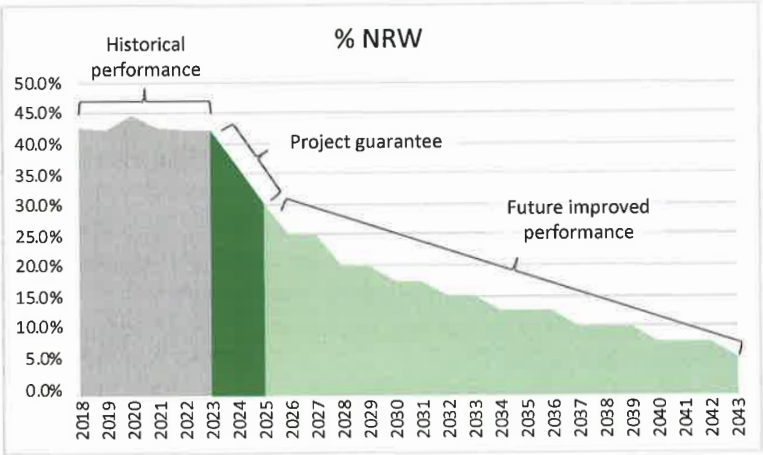

Figure 1: *Expected reduction in % NRW over time.*

This project will be contracted and awarded as a Performance Contract where the cost and savings will be contractually guaranteed. Integrity Water and Energy is solely responsible for developing the project, delivering the solutions and upgrades while also generating the new revenues and savings. This is very different from the traditional design, bid, build process. In the traditional design, bid, build process there is a lack of responsibility for everything from cost overruns to functionality. In this Performance Contract, Integrity Water and Energy is responsible for all deliverables in the contract, including a 1-year "bumper to bumper" warranty as well as product specific warranties that extend up to 20 years.

The project will consist of the below high-level stages, which will be discussed in more detail later in this proposal.

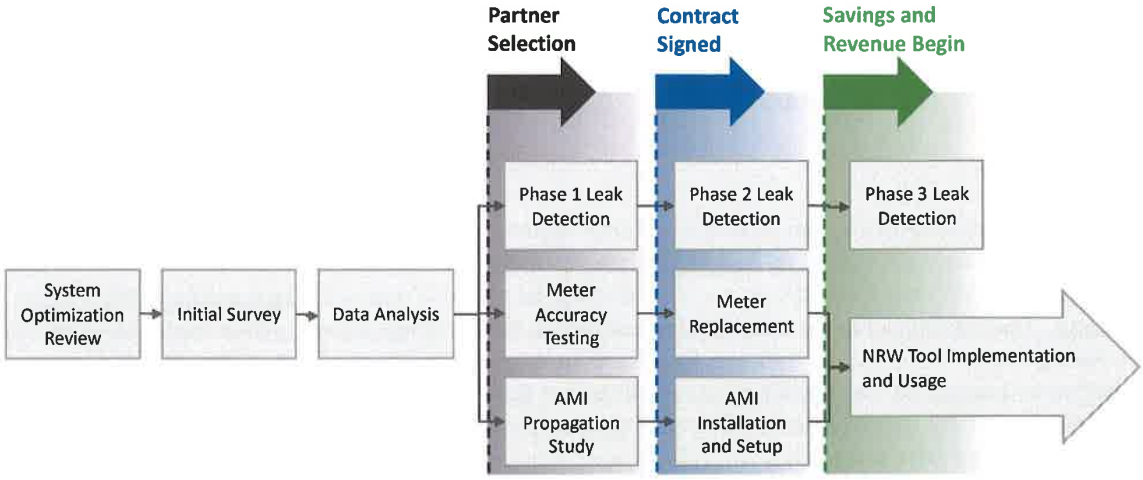

Figure 2: *High level project stages.*

Project Summary:

- Forensic audit of existing purchased and consumption data
- Test and documentation of the existing NRW
- Creation of revenue calculator based on meter accuracy
- Creation of system leak reduction calculator
- Implementation of geographic information system (GIS) for water meters, and the majority of valves and hydrants
- Establishment and implementation of 27 automated district metering zones
- Complete replacement of all water meters with best-in-class solid state water meters
- Installation of Advanced Metering Infrastructure (AMI) system
- Implementation of ***Daily NRW recognition by zone*** establishing Big Sandy Water District as one of the best utilities in the region
- Automated meter data reading and billing process
- Single point of responsibility for a turnkey deliverable
- ***Guaranteed reduction of NRW to fund the project***

A Performance Contract with Integrity Water and Energy will create technical and customer service improvements for Big Sandy Water District. Performance Contracting documents a clear and guaranteed outcome (illustrated in the table below) that will allow your utility to maintain low rates for your customers long term! This contrasts with typical bid projects where utilities have the challenge of raising utility rates and waiting to build up the financial capacity to implement a project without guaranteed financial benefits. Since we are implementing this as a Performance Contract, we have conducted the necessary thorough analysis and are confident that this project will generate a net positive financial benefit.

Project Total Investment	Year 1 AMI Fee	Year 1 M&V Fee	Year 1 Additional Revenue	Year 1 Leak Savings	Year 1 Total Savings and Revenue	20 Year Total Net Financial Benefit
$3,991,369	$29,541	$5,000	$178,294	$137,735	$316,029	**$1,358,253**

The project will also have 100% coverage for insurance and Performance and Payment Bonds so that under all scenarios the project scope will be implemented and deliver the intended benefit to Big Sandy Water District. Integrity Water and Energy will have bonding capacity up to a single project of $10,000,000 at the time of awarding of the contract. We have partnered with Travelers, one of the largest surety companies. Please refer to the Insurance and Bond section for the reference letters provided by Travelers.

The project team represents over 100 people, all from local regions, led by Integrity Water and Energy, that will partner on a successful implementation of your project. This is inclusive of all subcontractors and suppliers. All major purchases and expenditures are with local companies, suppliers, and manufacturers to ensure strong support for the long-term. The extended team also includes many of your staff that are invested in our team by assisting us with site surveys, data acquisition, question and answers, etc. There has been an extensive amount of effort from the partnership of Big Sandy Water District and Integrity Water and Energy to review current conditions and strategize future solutions. Integrity Water and Energy looks forward to the opportunity to serve your utility and customers to make a long-lasting positive impact on the communities that Big Sandy Water District serves.

Brandon Marcum
Account Executive
Integrity Water and Energy

Justin Prather
Project Management Leader
Integrity Water and Energy

JD Bowyer
Data Analytics Leader
Integrity Water and Energy

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Construction Management Process

Integrity Water and Energy will be responsible for all aspects of this project. We will be the single point of contact for the client and will coordinate with our partner teams for certain deliverables, including engineering, design, leak detection and repair, meter installation, and setup of reporting and alerting.

Our mission is to ensure our solutions meet the contracted goals to our client's satisfaction. To ensure we are successful in this, we have developed the following plan.

Scheduling and Planning

Scheduling will be handled by Integrity Water and Energy. Prior to project launch, we will communicate and discuss an initial project plan at a high level, as well as broken down into specific tasks. During the project we will coordinate closely with the Utilities Leadership (and team), tracking specific day-to-day tasks and the overarching workstreams they comprise. Integrity Water and Energy will be the conduit to our partner teams as we progress through specific project tasks. The development of new metering zones for recognition of NRW will require multiple short outages and boil advisories. Integrity Water and Energy will coordinate the outages to best fit your customers and team needs.

Mobilization

Integrity Water and Energy will be responsible for ensuring timely delivery of all necessary components and equipment. We have strong partnerships with manufacturers, suppliers and local contractors, and will work proactively to prevent potential delays.

Implementation and Communication

Strong communication is critical to the construction management process. Integrity Water and Energy will be your central point of contact for all activities related to this project. During contract development Integrity Water and Energy will lead regular meetings with the Utilities Leadership (and other utility team members per leaders' direction) to track project status, discuss open issues, and all other topics as needed. We may choose to meet more frequently during construction to review progress and discuss any necessary adjustments to remain on schedule. As part of these discussions, we will also provide updated 2-week plans to ensure all teams are coordinated on upcoming activities and priorities. Integrity Water and Energy will keep records from these meetings and distribute them to the Utilities Leadership on a monthly basis.

Any anomalies during the process will be documented and communicated to the utility so they are addressed in a timely manner. Examples would be meters that have vehicles parked over the meter box and where Integrity Water and Energy can not gain access.

Integrity Water and Energy will frequently provide onsite support/oversight of project work being performed by partner teams and will work to address any project related issues. Throughout implementation we will coordinate closely with the Utilities Leadership to obtain any necessary approvals and support.

The team will also, at Big Sandy Water District approval, develop articles for the local papers to make customers aware of all the improvements that are being made, and stressing that these improvements are being paid from savings! This would represent a series of articles from project approval through successful project completion.

Upon project completion Integrity Water and Energy will provide final project completion documents illustrating warranties and providers.

Onsite Validation

Integrity Water and Energy is committed to ensuring all installations and repairs are completed fully and accurately. We will provide thorough onsite reviews as work is completed, providing the utilities team with verification and proof of quality workmanship. This includes responsibilities for the entire project for a year from substantial completion: a "bumper to bumper" 1-year warranty after completion of the project. An example would be taking responsibility for the installation of new meters into your existing system. We take responsibility for a 36-inch diameter circle around each new meter or repair conducted by Integrity Water and Energy, inclusive of existing assets. There will also be product specific warranties that extend up to 20 years.

Project Closeout

Once all project tasks have been completed, Integrity Water and Energy will provide full documentation demonstrating the work has been completed accurately. Big Sandy Water District will then sign a certificate of completion, acknowledging that all project requirements have been met. At this point the warranty periods begin for all newly installed equipment, and ownership is transitioned to the Utilities Leadership for contractually required maintenance.

Project Coordination and Responsibility

Integrity Water and Energy will be the single point of contact for Big Sandy Water District for the duration of the project. We bring a wealth of experience in leading teams and overseeing large scale projects (see figure below).

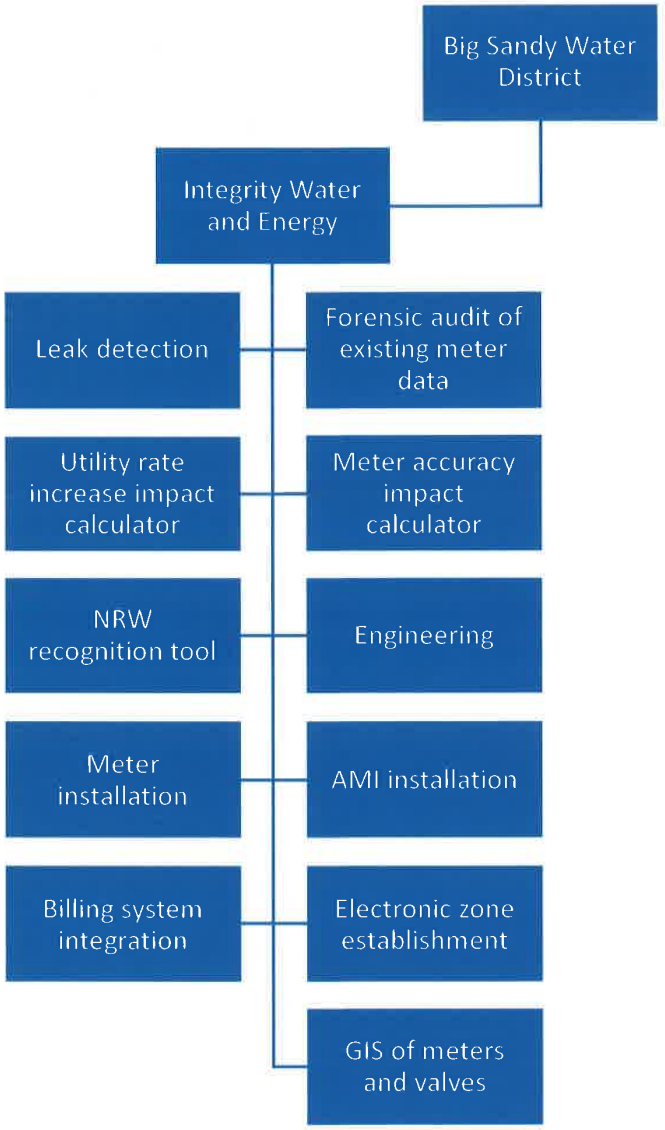

Figure 4: *Project coordination and responsibility illustration.*

Quality Management Plan

Integrity Water and Energy assumes complete ownership and responsibility of this project's quality including, but not limited to contractor workmanship, project coordination, hand over documentation, and system functionality. To ensure the highest quality project is delivered on schedule, Integrity Water and Energy uses a gated management approach. In a gated management project, the project is divided into key milestones (gates). At each gate Integrity Water and Energy will review current project status and readiness to move to the next phase in the project with Big Sandy Water District and involve third party experts as necessary. At that time, any open items are documented, and a determination is made regarding whether to move forward in the project. The below figure illustrates how the gated management process works.

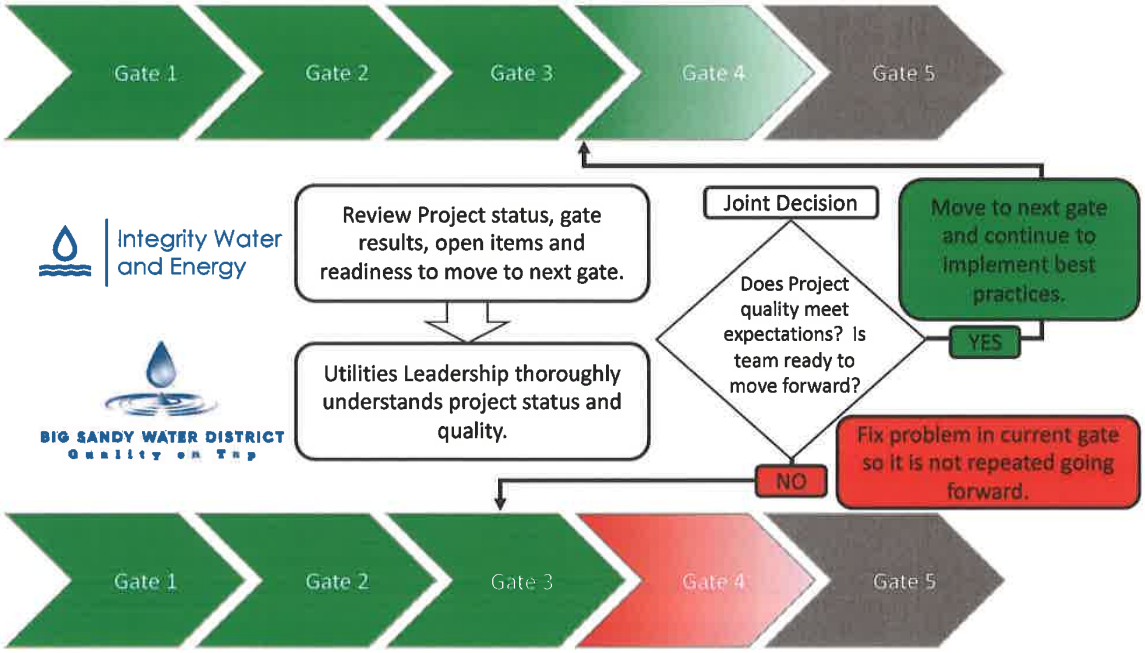

Figure 5: *Gated management process.*

Big Sandy Water District Project Gated Quality Management

The below figure shows the proposed gates and considerations specific to this project.

GATE	DESCRIPTION	JUDGEMENT CRITERIA AND CONSIDERATIONS	LEAD	SUPPORT	
1	Scope of work: Meter testing Leak detection Leak repair	Agreement on scope Methodology Schedule Deliverables	Integrity Water and Energy	Big Sandy Water District	
2	Project Approval	Project scope meets expectations Projected savings meet expectations Big Sandy Water District agreement and approval	Big Sandy Water District	Integrity Water and Energy	
3	Notice to Proceed	Project funding received Fiduciary has proceeds	Big Sandy Water District	Integrity Water and Energy	RSA Advisors
4	Acceptance by Zone	Installation inspection Field verification and confirmation Commissioning Zone documentation	Integrity Water and Energy	Big Sandy Water District	
5	Overall Project confirmation	NWR Tool functionality, training, and usability Leak repair confirmation Project handover documentation			

Figure 6: *Proposed gates for Big Sandy Water District NRW.*

Gate 1: Scope of Work

It is important that project expectations and deliverables are clearly spelled out in the scope of work and that Integrity Water and Energy, and Big Sandy Water District have the same understanding of what work is to be performed and how it will be performed. Once the major scopes of work are written in the categories of meter testing, leak detection, and leak repair Integrity Water and Energy will review the scope with Big Sandy Water District prior to finalization.

Gates 2 & 3: Project Approval and Notice to Proceed

If selected, Integrity Water and Energy will write the formal contract and work with Big Sandy Water District to ensure the terms and conditions, project scope and savings meet expectations. The first step in approving the contract is Project Approval. Once the project is approved, then Big Sandy Water District will work with a financial advisor to secure project funding. After the project funding has been received by a Fiduciary, then Big Sandy Water District can give Integrity Water and Energy the official "Notice to Proceed".

Gate 4: Acceptance by Zone

Integrity Water and Energy will conduct installation inspections and construction management audits to ensure a safe and organized work environment and high-quality workmanship. Installation inspections will follow basic guidelines. Issues found during installation inspections will be added to a punch list and appropriately addressed.

In an effort to deliver benefits to Big Sandy Water District as soon as possible, construction and confirmation will be planned zone by zone. For example, once new meters are installed, leaks repaired, and AMI system is installed in Zone 1, the zone will be commissioned, rather than waiting for the entire project to be completed. At that point, Big Sandy Water District would sign a substantial completion letter for Zone 1. At the end of the project, Zone 1 will be reviewed again as well as all other zones for final completion.

Gate 5: Overall Project Confirmation

Prior to project finalization, Integrity Water and Energy will ensure Big Sandy Water District has everything required to successfully sustain a NRW water management program. An assessment of overall training and review of documentation will be conducted by Integrity Water and Energy and Big Sandy Water District to ensure effectiveness and completeness. Training will be provided for the NRW tool, the new meters, and new leak detection tools to pinpoint additional future leaks. All documentation will be provided to Big Sandy Water District, including construction records and documentation, geolocation system/data updates, component warranty and service provider information.

Proposed Project Schedule

Based on this project's scope Integrity Water and Energy proposes the following schedule. Note that we may coordinate with Big Sandy Water District to adjust the schedule to deliver the scope and savings at an accelerated rate.

Project Schedule	
3/10/23	Proposal Submission
3/17/23	Big Sandy Selection of IWE as a partner
3/17/23	Big Sandy Selection of RSA as a partner
TBD	Send PSC intention to move forward with project
3/22/23	Sign Letter of Intent
3/28/23	Present contract provisions to Big Sandy attorney
4/3/23	Start to pull/test water meters and begin leak detection
6/8/23	Present Final Contract
6/15/23	Approve Final Contract
6/21/23	Advertise for Bonding
7/11/23	Bond Sale
8/7/23	Project Mobilization
8/30/24	Project Completion
1/6/25	Project Debt Services
1/6/25	Begin Measurement and Verification

Figure 7: *Proposed project schedule.*

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INSURANCE AND BOND

Integrity Water and Energy will have bonding capacity for a single project up to $10,000,000 at the time of awarding of the contract. We have partnered with Travelers, one of the largest surety companies, for the Performance and Payment Bond for Big Sandy Water District.

During the formation of Integrity Water and Energy considerable effort was spent on investments into the company and working with the bonding community to understand the process of establishing up to $10,000,000 bonding capacity for our clients for a single project execution. Investments were made in the company to provide the coverage ratios to achieve these goals for our clients.

Once we are awarded the contract, Integrity Water and Energy will provide a record of the Performance and Payment Bond for this project.

A full analysis was also completed of insurance needs for the construction services that Integrity Water and Energy will be providing. Integrity Water and Energy has obtained business liability insurance for up to $4,000,000 through The Hartford (see the figure on the next page). Integrity Water and Energy will also verify that all subcontractors working for Integrity Water and Energy will be fully licensed and insured.

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 03/06/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATIONIS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER ASSUREDPARTNERS NL LLC [redacted]	CONTACT NAME: PHONE (A/C, No, Ext): (502) 635-7066 FAX (A/C, No): E-MAIL ADDRESS:
INSURED INTEGRITY WATER & ENERGY, LLC 380 MISSOURI AVE STE A-5 JEFFERSONVILLE IN 47130-3011	INSURER(S) AFFORDING COVERAGE — NAIC# INSURER A : Hartford Underwriters Insurance Company — 30104 INSURER B : INSURER C : INSURER D : INSURER E : INSURER F :

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED.NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/Y YYY)	LIMITS	
A	COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR [X] General Liability GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC OTHER:			[redacted]	07/16/2022	07/16/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$2,000,000 $1,000,000 $10,000 $2,000,000 $4,000,000 $4,000,000
A	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [X] HIRED AUTOS [X] NON-OWNED AUTOS			[redacted]	07/16/2022	07/16/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$2,000,000
	[ ] UMBRELLA LIAB [ ] OCCUR [ ] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $						EACH OCCURRENCE AGGREGATE	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [ ] (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					[ ] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE -EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	
A	Data Breach - Defense & Liab Covg			[redacted]	07/16/2022	07/16/2023	Limit	$50,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Those usual to the Insured's Operations.

CERTIFICATE HOLDER	CANCELLATION
For Informational Purposes 380 MISSOURI AVE STE A-5 JEFFERSONVILLE IN 47130-3011	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Susan L. Castaneda

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

2305 River Road
Louisville, KY 40206
P 502.259.9321 F 502.894.8737
[redacted]
www.Assuredpartners.com

AssuredPartners NL

February 22, 2023

RE: **Integrity Water & Energy, LLC**

To Whom It May Concern:

Travelers Casualty and Surety Company of America is pleased to be the surety for Integrity Water & Energy, LLC. We have been pleased with our association with Integrity Water & Energy, LLC and look forward to a continuing long-term relationship during the years to come. Travelers Casualty and Surety Company of America will consider providing performance and payment bonds on single projects up to $10,000,000 with an aggregate backlog of up to $15,000,000. Travelers Casualty and Surety Company of America has an AM Best rating of A++ (Superior), Financial Size Category of XIV ($2 Billion or greater) and a federal treasury limit in excess of $211 million.

All bid and final bonds are subject to a review of the contract documents and underwriting conditions at the time of the bid or award. Naturally, any arrangement to release performance and payment bonds is a matter between Integrity Water & Energy, LLC and Travelers Casualty and Surety Company of America and we assume no liability to third parties or to you if for any reason we do not execute any bid or final bonds.

Should you have any questions, please feel free to contact me at 502-259-9321.

Sincerely,

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA

Tammy L. Masterson
Attorney-In-Fact

TRAVELERS

Nate Byerly
Account Executive Officer
Travelers Bond
[redacted]

Big Sandy Water District
18211 State Route 3
Catlettsburg, KY 41129

RE: Integrity Water and Energy, LLC

To Whom it May Concern,

It has been the privilege of Travelers Casualty and Surety Company of America ("Travelers")1 to partner with Integrity Water and Energy, LLC ("Integrity") for their surety bond needs. We are positioned to support bonded projects in the $10,000,000 range with aggregate programs of $15,000,000. These do not represent maximum limits; however, they are intended to cover a majority of typical bond needs. We have confidence in the financial and operational strength of the firm and are a strong supporter of their total work program. We are pleased that Integrity is pursuing the above referenced project and we recommend them to you as one of the outstanding contractors in the country.

Integrity has the ability to provide Performance and Payment Bonds for this project should they be selected. Naturally, as is customary within the surety industry, the issuance of any bid or final bonds is always contingent upon a satisfactory underwriting review at the time a request for bonds is made. This review may include, but not be limited to, acceptable terms, conditions, documents, bond forms and confirmation of an acceptable financing source and payment provisions. It should be understood that any arrangement for surety bonds is a matter strictly between Integrity and Travelers. We assume no liability to third parties or to you by issuance of this letter.

Travelers Casualty and Surety Company of America/Travelers Surety and Casualty Company are licensed to do business in all states. Both companies are listed in the Department of Treasury's Listing of Approved Sureties (Department Circular 570.) Travelers Casualty and Surety Company of America is rated by A.M. Best as "A++" in Financial Strength and "XV" in Financial Size Category.

If you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

TRAVELERS CASUALTY AND SURETY
COMPANY OF AMERICA

Nate Byerly

[1] Travelers is an A++ (Superior) A.M. Best rated insurance company (Financial Size Category XV ($2 billion or more)).

MEASUREMENT AND VERIFICATION

Measurement and Verification (M&V) is a critically important part of a performance contracting project that begins during the development and planning stages of the project as shown in the figure below. Not only is M&V required to be offered by statute (KRS45A.352), but it also helps keep your "eye on the ball". In any project, if you don't actually measure the results, you won't know whether the project was successful. M&V services are unique to each project. The client defines the desired level, type, and frequency of M&V in the project scope.

Integrity Water and Energy's project team has extensive experience leading process improvement projects. The Data Analytics Leader is a certified Six Sigma Blackbelt, and the Project Management Leader is a trained expert in Kaizen. Six Sigma and Kaizen are proven process improvement methodologies used in a variety of industries, using a methodical scientific approach to implement lasting process improvements. These same techniques will be applied to the M&V portion of the Big Sandy Water District project to ensure our solutions have a long-lasting positive impact.

The figure below illustrates the entire 20-year relationship in one visual. At a high level there are three stages to the 20-year relationship:

1. Planning
2. Implementation and Quality Management
3. Sustainment

During the planning stage (stage 1), design of the measurement and verification process begins. The actual process of measurement and verification begins in stage 2 and then after completion of the Implementation and Quality Management the long-term measurement and verification process continues.

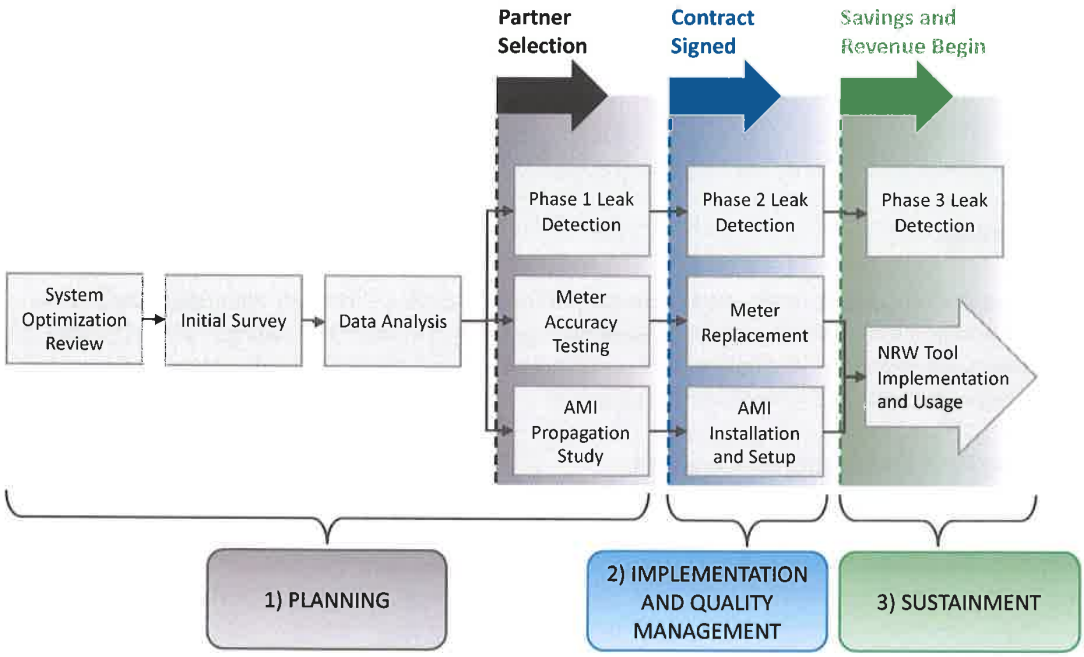


Figure 34: *Measurement and Verification for Big Sandy Water District NRW.*

There are unique M&V activities that happen in each phase. The below figure highlights the key components and activities in each stage.

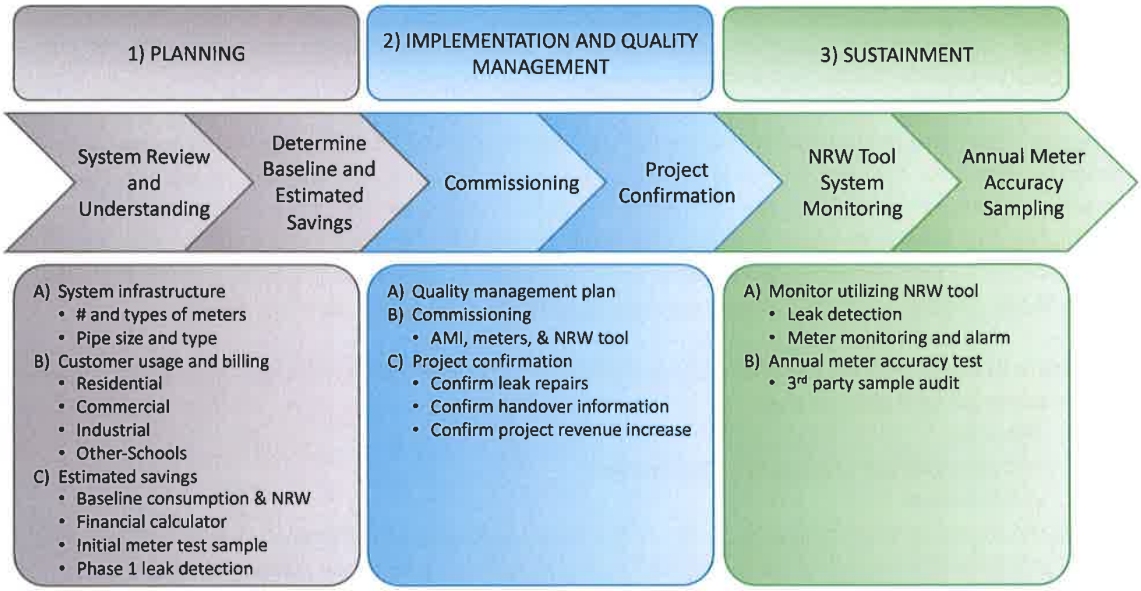


Figure 35: *Activities by stage.*

M&V Planning

Planning is very important to the overall project so that we have a thorough understanding of your water system and determine an accurate baseline from which to base the savings. The data collection and analysis are described in detail in the Foundational Utility System Knowledge explanation in the Project Technical Solutions section of this proposal.

Implementation and Quality Management

A gated management approach will be used to confirm quality throughout this project. As previously discussed, this approach is described in detail in the quality management explanation in the project team section. An important step within the quality management plan is commissioning.

Commissioning

Commissioning is a critical part of the construction process that transitions into the long-term measurement and verification process. Commissioning is an important step to ensure the system will operate as planned and that the project will achieve the guaranteed savings specified in this proposal. Commissioning will be performed for meters, the Advanced Metering Infrastructure (AMI) system, and the NRW tool.

Commissioning of meters will consist of the following:

- Meter installation – the meters should be installed with the following considerations:
  - Horizontally installed for optimum function
  - Water-tight connections
  - Installed within the correct number of pipe diameter lengths upstream and downstream of the meter (per the meter's specifications)
- Meter location – the meters should be located to ensure the following items:
  - Accessible for maintenance and repair and proper reading
  - Protected from freezing and other adverse conditions (such as flooding) that could potentially cause damage
- Meter components – the meters should have the following components:
  - Inlet shut-off valve that is easily accessible and allows the meter to be taken offline for maintenance
- Network functionality:
  - Communication to AMI
  - Alarm functionality and reporting

Commissioning of the AMI will consist of the following:

- Communications network connectivity and data transmission – system has been tested to:
  - Ensure system network connection is communicating with the advanced meters
  - Ensure data is accurately transmitting at the designated intervals
  - Alert the system if meters are not sending data to the network
- Software integration - software has been properly programmed to:
  - Collect the desired interval data
  - Generate automated billing
  - Set thresholds that alert of high-water use, which will inform Big Sandy Water District of leaks and other operational issues
  - Generate the necessary reports for meter data management (e.g., leak detection, high-use alerts)

Commissioning of the NRW tool will consist of the following:

- System level reporting – Reporting tool has been tested to:
  - Ensure the tool is accurate and updates properly
  - Shows NRW by zone and accurately projects cost impacts
  - Allows user to adjust report time periods
- Zone detail reporting – Reporting tools have been tested to:
  - Ensure accurate reporting of daily zone NRW
  - Allows user to adjust report time periods
  - Alarm thresholds can be set by user and function properly

Commissioning and confirmation of leak reduction is another important aspect of the M&V for this project. Once leaks are detected they will be visibly identified by digging to expose the leak. Once exposed, the size of the leak will be documented via photo and/or video for record keeping. Then the repair will be made. At this point a leak repair will be logged and geolocated. After the leak is covered or filled in, the team will listen for an additional confirmation that the leak has been repaired. At project completion, after all leaks have been repaired to achieve the guaranteed volume of leak reduction, Integrity Water and Energy will return to every repair site that was part of the project to confirm that no leaks have returned utilizing acoustic leak detection. Beyond that, the NRW daily recognition tool will provide your team with additional assurance that the leaks have not reappeared.

All commissioning activities will be led and documented by Integrity Water and Energy.

Sustainment (20-year Period)

Once the project is complete Big Sandy Water District will be able to use the NRW tool and AMI to continue to reduce leaks and maintain the system. In addition to the reporting and monitoring systems, Integrity Water and Energy is guaranteeing the meter accuracy. Each year a sample of meters will be pulled to test and verify meter accuracy. This will be compared against the guarantee in the contract to prove that the guarantee has been met. Integrity Water and Energy will produce a report to review annually.

Cost of Services

The annual cost for this service is estimated to be $5,000, as illustrated in the proforma located in the Project Financial Approach section of this proposal.

PROJECT FINANCIAL APPROACH

Performance Contracts are designed to provide financial value by having the project pay for itself through savings and revenue increases, preventing the city or utility from needing to increase taxes or experience major rate increases. This project will achieve payback through the reduction of NRW in the form of leak reduction and meter accuracy increases.

The financial markets are still relatively low but are raising quickly, there is broad interest in making investments in infrastructure now. The current financial conditions by themselves are a reason to investigate this work now. Additionally, taking advantage of these current rates through a Performance Contracting project can be even more financially beneficial.

On the next page is the Proforma illustrating the estimated investments, future revenues and related project savings. After being selected as your partner, Integrity Water and Energy will finalize all costs and savings prior to the presentation of a contract to Big Sandy Water District.

Project Summary

Below is our recommended set of solutions for your project. This includes meter installation, leak detection, and various technologies and required analysis summarized below. There are multiple other solutions that have been analyzed and could be considered if your team would like to discuss upon development of the final contract.

- Forensic audit of existing purchased and consumption data
- Test and documentation of the existing NRW
- Creation of revenue calculator based on meter accuracy
- Creation of system leak reduction calculator
- Implementation of geographic information system (GIS) for water meters, and the majority of valves and hydrants
- Establishment and implementation of 27 automated district metering zones
- Complete replacement of all water meters with best-in-class solid state water meters
- Installation of Advanced Metering Infrastructure (AMI) system
- Implementation of ***Daily NRW recognition by zone*** establishing Big Sandy Water District as one of the best utilities in the region
- Automated meter data reading and billing process
- Single point of responsibility for a turnkey deliverable
- ***Guaranteed reduction of NRW to fund the project***

Big Sandy Non-Revenue Water Project

Year	Debt Services	AMI Services above AMR	M&V Services	Total Costs	Additional Revenue from Meters	Savings from Leaks	Total Savings and Revenue	Net Savings
0	$ -	$ -	$ -	$ -	$ 79,252	$ 67,188	$ 146,440	$ 146,440
1	$ 293,628	$ 23,541	$ 5,000	$ 322,169	$ 178,294	$ 137,735	$ 316,029	$ (6,140)
2	$ 293,628	$ 23,541	$ 5,125	$ 322,294	$ 181,149	$ 141,179	$ 322,328	$ 34
3	$ 293,628	$ 23,541	$ 5,253	$ 322,422	$ 184,059	$ 144,708	$ 328,767	$ 6,346
4	$ 293,628	$ 23,541	$ 5,384	$ 322,553	$ 187,026	$ 148,326	$ 335,352	$ 12,799
5	$ 293,628	$ 23,541	$ 5,519	$ 322,688	$ 190,051	$ 152,034	$ 342,085	$ 19,397
6	$ 293,628	$ 23,541	$ 5,657	$ 322,826	$ 193,135	$ 155,835	$ 348,970	$ 26,144
7	$ 293,628	$ 23,541	$ 5,798	$ 322,967	$ 196,279	$ 159,731	$ 356,010	$ 33,043
8	$ 293,628	$ 23,541	$ 5,943	$ 323,112	$ 199,486	$ 163,724	$ 363,210	$ 40,098
9	$ 293,628	$ 23,541	$ 6,092	$ 323,261	$ 202,755	$ 167,817	$ 370,572	$ 47,311
10	$ 293,628	$ 23,541	$ 6,244	$ 323,413	$ 206,089	$ 172,013	$ 378,101	$ 54,688
11	$ 293,628	$ 23,776	$ 6,400	$ 323,805	$ 209,489	$ 176,313	$ 385,802	$ 61,997
12	$ 293,628	$ 24,014	$ 6,560	$ 324,202	$ 212,956	$ 180,721	$ 393,677	$ 69,474
13	$ 293,628	$ 24,254	$ 6,724	$ 324,607	$ 216,492	$ 185,239	$ 401,731	$ 77,125
14	$ 293,628	$ 24,497	$ 6,893	$ 325,017	$ 220,099	$ 189,870	$ 409,969	$ 84,952
15	$ 293,628	$ 24,742	$ 7,065	$ 325,435	$ 223,778	$ 194,617	$ 418,395	$ 92,960
16	$ 293,628	$ 24,989	$ 7,241	$ 325,859	$ 227,531	$ 199,482	$ 427,013	$ 101,154
17	$ 293,628	$ 25,239	$ 7,423	$ 326,289	$ 231,359	$ 204,469	$ 435,828	$ 109,539
18	$ 293,628	$ 25,492	$ 7,608	$ 326,727	$ 235,264	$ 209,581	$ 444,845	$ 118,117
19	$ 293,628	$ 25,746	$ 7,798	$ 327,173	$ 239,248	$ 214,820	$ 454,069	$ 126,896
20	$ 293,628	$ 26,004	$ 7,993	$ 327,625	$ 243,313	$ 220,191	$ 463,504	$ 135,879
Total	**$ 5,872,556**	**$ 484,164**	**$ 127,723**	**$ 6,484,443**	**$ 4,257,102**	**$ 3,585,594**	**$ 7,842,696**	**$ 1,358,253**

Financial Inputs

Project Term (years):	20
All-In Interest Rate:	4.50%
CPI Increase:	2.50%
Project Investment Amount	$ 3,991,369
Additional Client Repair Budget	$ -
Project Total Investment	$ 3,991,369

Leak Reductions

Reduction in Purchased Water:	13.00%
Meter Accuracy Increase:	5.50%
Maintaince Water Used:	5.00%
Wholesale Production Cost:	$2.76

Meter Accuracy Improvements

	Residential	Commercial	Industrial	Other-Schools
Accuracy Increase:	5.50%	5.50%	5.50%	5.50%
Annual Rate Increase:	2.50%	2.50%	2.50%	2.50%

Figure 36: *Financial model inputs & outputs.*

Reasons to Implement a Performance Contracting Project

1. Professional Services:
    a. A Performance Contracting process is based on best overall value to the utility with the lowest upfront price. Many "low bids" are not the best overall value when appropriately accounting for all causes for the improvement. Low bids are appropriate for commodities (e.g., purchasing pens, paper, etc.), but not for complex solutions.
    b. Best overall value since a Performance Contract has guaranteed cost, savings, and no change orders.
    c. Average cost overage in "bid" projects is over 25% vs. Performance Contracts where we are required to guarantee all costs, schedules, and funding prior to contract.
    d. Utilization of industry concepts. Performance Contracts implement some of the most advanced solutions in the industry.
    e. Complete understanding of the project to be executed at the time of presentation of contract, unlike traditional low bid projects where contractors can interchange solutions that are "equivalent".
2. Guaranteed Results:
    a. Integrity Water and Energy will document the known meter inaccuracy in the existing water meter system and will provide a written guarantee of future meter accuracies for 20 years to generate increased revenues.
    b. Integrity Water and Energy will locate and repair a guaranteed quantity of leak reduction, improving NRW.
3. Improved System Knowledge:
    a. Big Sandy Water District already has consumer confidence, having no violations, and consistently providing high quality water for its customers. After the project Big Sandy Water District will be one of the most advanced utilities in the region, while the reallocation of savings keeps the utility rates low and stable for a 20-year period.

Integrity Water and Energy is not a Financial Advisor, but we will work seamlessly with your chosen Financial Advisor after selection to get the lowest cost of capital. Integrity Water and Energy will provide a written guarantee of new revenue and savings in year 1 in the amount of $316,029. The Financial Advisory firm will review all current debts for the utility and make a recommendation as to the best overall investment plan.

Big Sandy Water District will pay Integrity Water and Energy based on project progress on a monthly basis, withholding 10% for retainage, 5% to be released upon 50% project completion, and 5% to be released upon project final completion once everyone agrees that all scope has been completed. An example of a potential payment schedule is listed below.

Payment Schedule		
7/11/23	$	1,037,756
8/11/23	$	359,223
9/11/23	$	359,223
10/11/23	$	239,482
11/11/23	$	239,482
12/11/23	$	239,482
1/11/24	$	239,482
2/11/24	$	239,482
3/11/24	$	239,482
4/11/24	$	239,482
5/11/24	$	159,655
6/11/24	$	199,568
7/11/24	$	99,785
8/30/24	$	99,785
Total	$	3,991,369

Figure 37: *Proposed payment schedule.*

PROJECT TECHNICAL SOLUTIONS

BIG SANDY WATER DISTRICT
Quality on Tap

Big Sandy Water District has an opportunity to become one of the most advanced water utilities in the region by upgrading the metering system, meter reading system, and creating a daily leak detection system that will be paid for through savings and new revenues due to a reduction in Non-Revenue Water (NRW). The new savings and increase in revenue will be guaranteed to be $316,029 annually. This project will bring the utility to best-in-class technology and usability. Achieving the new savings and revenue increase requires replacing existing meters, automatic meter reading, establishing District Metering Area (DMA's, aka zones), and building and installing a daily leak detection notification tool. Each of these upgrades will be discussed in this section.

At this stage in the project development no leak detection or meter accuracy testing has been completed. In our experience with systems like yours, we expect to be able to find and guarantee meter accuracy increases in the range of 5-10% and reduction in purchased water due to leaks in the range of 10-15%. The proforma models a 5.5% increase in meter accuracy, and a 13% reduction in purchased water due to leak repairs, resulting in an overall reduction in NRW of 13%. These details will be finalized and contractually guaranteed after meter testing and phase 1 leak detection.

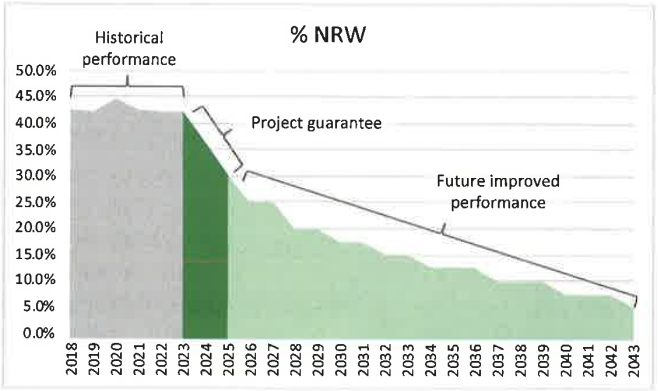


Figure 8: *Expected reduction in % NRW over time.*

The figure above illustrates how the NRW reduction might look over time. After partner selection and prior to final contract Integrity Water and Energy will document the final guaranteed accuracy and leak reduction through a written guarantee in the contract. These improvements would then be guaranteed to generate savings and new revenues that will exceed the investments in new technology (see the above figure).

Leak Detection

We have documented ***42% system NRW*** for Big Sandy Water District. Integrity Water and Energy will find, and repair leaks guaranteed to reduce the purchased water volume by ***13%***. The leaks (see figure shown here) will be discovered and documented through an extensive engineering process over multiple phases utilizing multiple tools and technologies. Some of this work will occur after Big Sandy Water District selects Integrity Water and Energy during the development period, and some of the work will occur after we have a signed and executed contract during project construction. The figure below shows the relationship between leak detection phases and project milestones.

Figure 9: *Typical leak we expect to find in this project.*

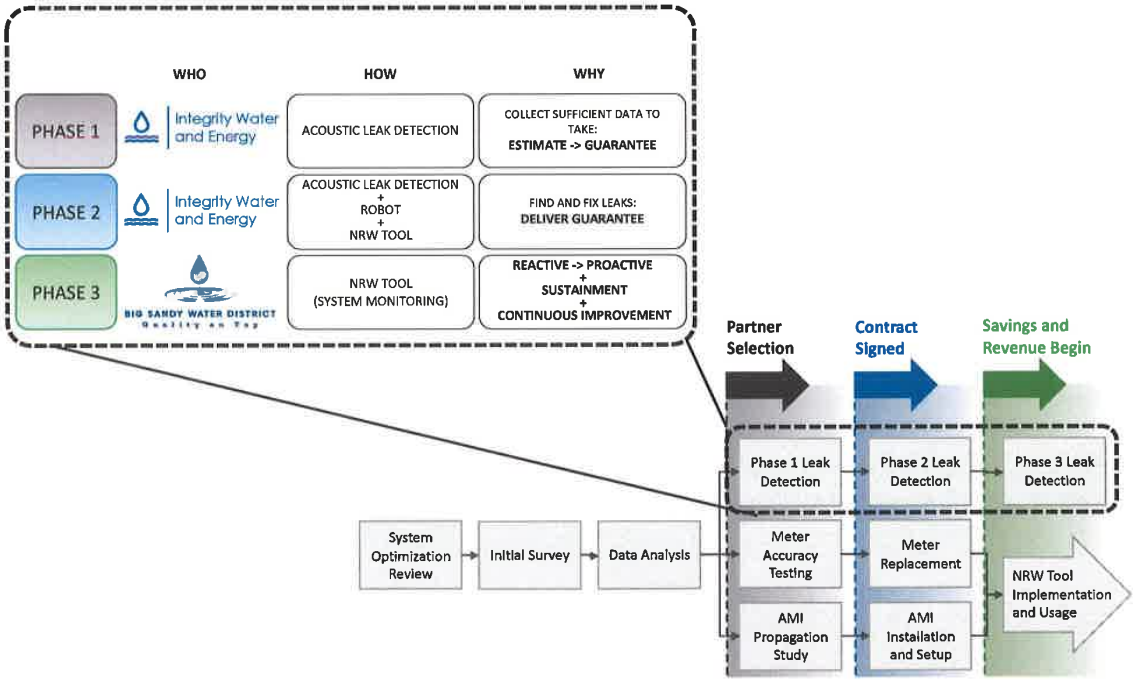


Figure 10: *Project development and implementation process and leak detection phases.*

Phase 1 Leak Detection

Phase 1 occurs after Big Sandy Water District selects Integrity Water and Energy as the Performance Contracting provider (prior to having a signed and executed contract). In this phase the team will use acoustic leak detection methods and correlators (see figure below), listening for audible leak noises on all assets in the system, which we will located based on the customer addresses already provided by the utility team. Integrity Water and Energy will begin to build out a geographic information system (GIS, aka "Mapping System"). This will be of great benefit to your team over the next 20 years. This phase may be iterative as the process of narrowing down leak locations may lead us to identify additional leaks. Phase 1 leak detection will take 1-3 months depending on weather and noise correlations. All leaks that are found will be photographed, and in many cases videoed.

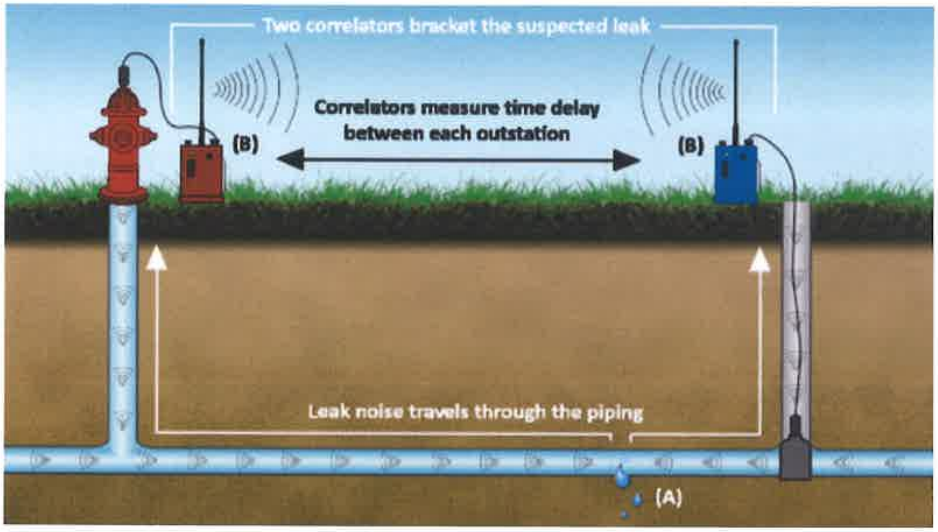


Figure 11: *Description of audible leak detection.*

Phase 2 Leak Detection

The specific actions and technologies in phase 2 will vary based on the analysis performed in phase 1. The objective of phase 2 is to locate, document the size of larger leaks and fix them so that the guarantee can be delivered. This can be performed with extensive technical work using temporarily mounted sensors that continually listen for noise and provide additional location services. Larger lines (6+ inches) may require a temporary inline sensor or inserted mobile sensor that can detect leaks as it travels through the pipe. All work requiring inline sensing of any kind will be coordinated with your team before execution. The below figure is an example of how we might view the location of detected leaks.

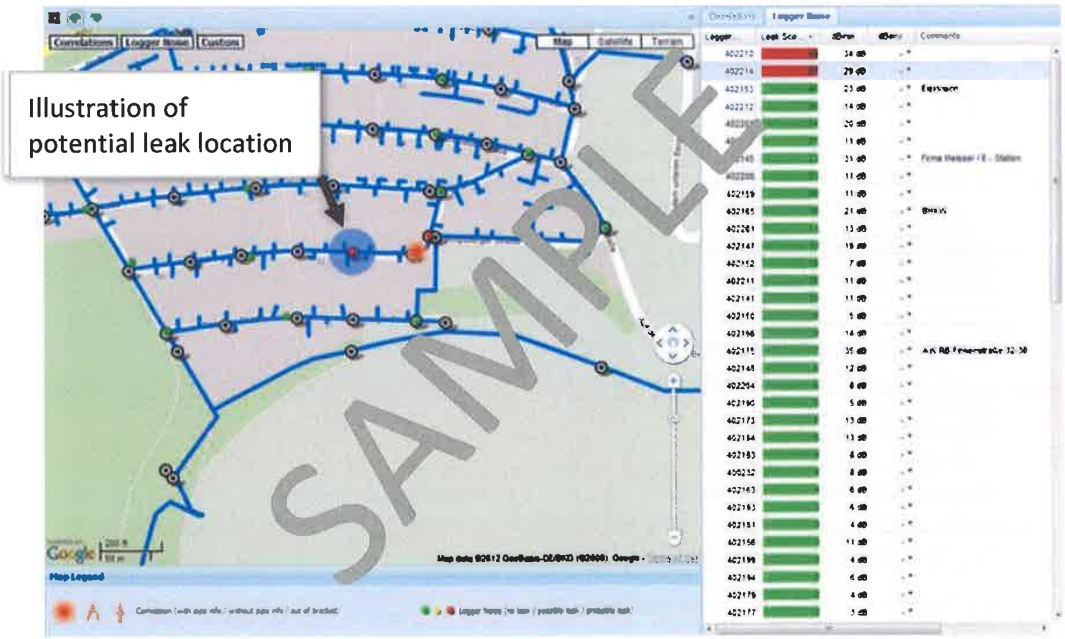


Figure 12: *Example of one of the tools used in phase 2 to fine-tune leak detection.*

Phase 3 Leak Detection

While phase 1 and 2 are focused on fixing current leaks, phase 3 focuses on ensuring the system performs well past the construction event and into the long-term future. Due to the age of your system, even after leaks are repaired in phase 1 and 2, new leaks could emerge. To ensure the long-term health and stability of the system, we will equip your team with a tool that provides daily leak detection by zones. We have been working with your team to strategically establish 13 new zones and automate the existing 14 zones for a total of 27 zones (see figure below) that will allow the Big Sandy Water District team to monitor system performance for each isolated zone and narrow their focus as necessary. Each zone requires at least one new zoning meter pit to be installed. Currently it is nearly impossible for your team or anyone else to know where a leak would be in 500 square miles of water district. Once these new district meters are installed along with the zoning technology, your team will be able to look across your 500 square miles of water to decide when and where to focus to achieve absolute best-in-class performance!

Figure 13: *Big Sandy Water District future Leak Detection Zones.*

The below figure is an illustration of the monthly NRW report that the Board and Utilities Leadership will receive. The tool allows for daily as well as custom time period reporting. This NRW report is the absolute pinnacle in modern water utility reporting and management. It allows for "real time" management of your system. As you can see, the graphic shows the % loss in a zone, the associated volume of water, and the cost of the loss. ***The tool also is designed with alerts that can be customized by your team***. For example, you can ask the tool to ***not*** alert if a zone is at or below 25% NRW, alert between 25% and 38%, and well as create an emergency alarm above 38% NRW.

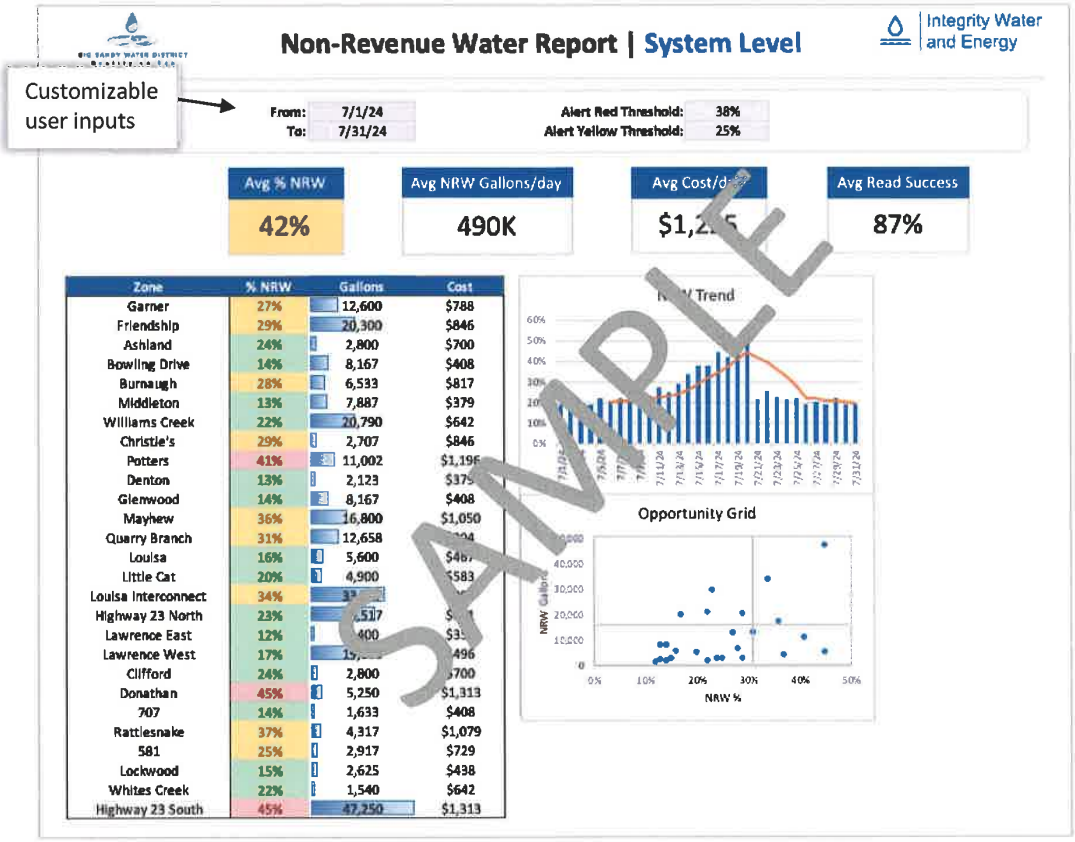
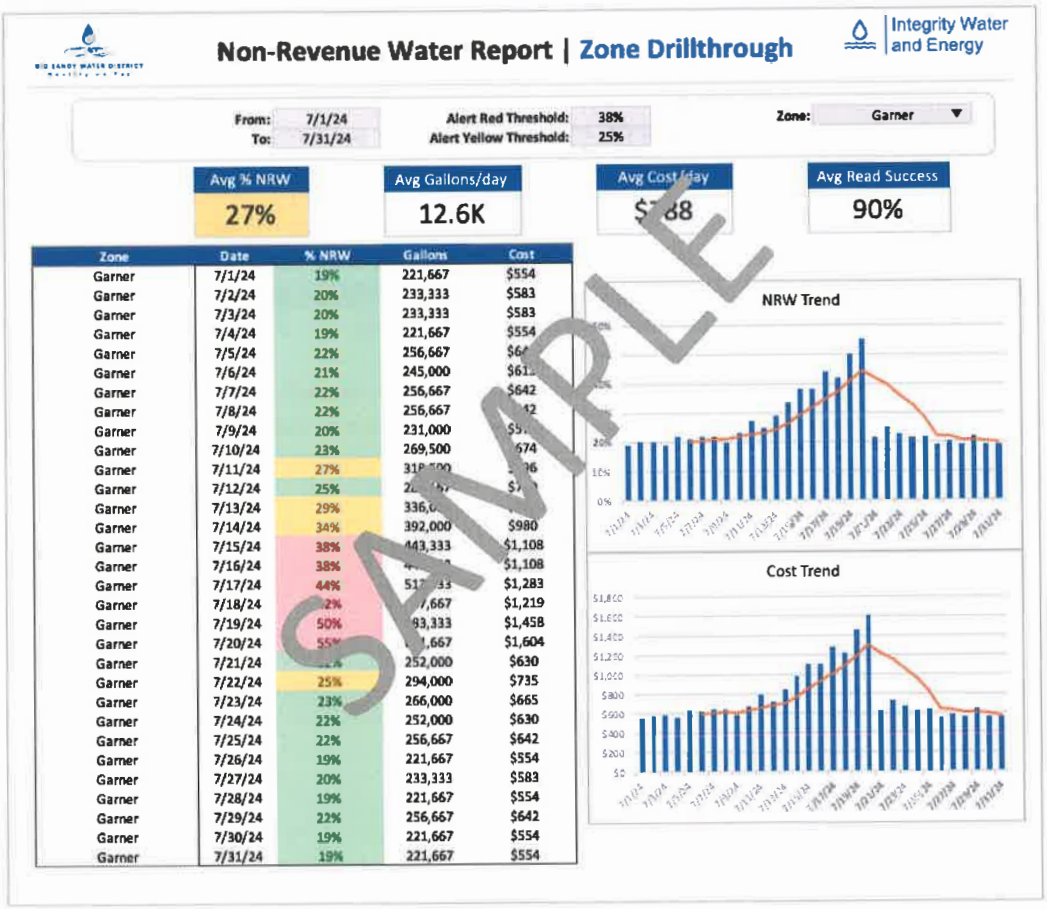


Figure 14: *Example Non-Revenue Water System Level Report.*

The below figure shows how the team can manage daily to proactively identify leaks by zone and repair them prior to significant loss, to sustain overall performance.



Zone	Date	% NRW	Gallons	Cost
Garner	7/1/24	19%	221,667	$554
Garner	7/2/24	20%	233,333	$583
Garner	7/3/24	20%	233,333	$583
Garner	7/4/24	19%	221,667	$554
Garner	7/5/24	22%	256,667	$64
Garner	7/6/24	21%	245,000	$61
Garner	7/7/24	22%	256,667	$642
Garner	7/8/24	22%	256,667	12
Garner	7/9/24	20%	231,000	$5
Garner	7/10/24	23%	269,500	74
Garner	7/11/24	27%	31	06
Garner	7/12/24	25%	2	$
Garner	7/13/24	29%	336,	
Garner	7/14/24	34%	392,000	$980
Garner	7/15/24	38%	443,333	$1,108
Garner	7/16/24	38%		$1,108
Garner	7/17/24	44%	51	$1,283
Garner	7/18/24	2%	7,667	$1,219
Garner	7/19/24	50%	83,333	$1,458
Garner	7/20/24	55%	1,667	$1,604
Garner	7/21/24		252,000	$630
Garner	7/22/24	25%	294,000	$735
Garner	7/23/24	23%	266,000	$665
Garner	7/24/24	22%	252,000	$630
Garner	7/25/24	22%	256,667	$642
Garner	7/26/24	19%	221,667	$554
Garner	7/27/24	20%	233,333	$583
Garner	7/28/24	19%	221,667	$554
Garner	7/29/24	22%	256,667	$642
Garner	7/30/24	19%	221,667	$554
Garner	7/31/24	19%	221,667	$554

Figure 15: *Example Non-Revenue Water Daily Operational Report.*

Currently we envision that Integrity Water and Energy will begin the installation of new meters in one specific zone, as well as install the new associated zone meter pit. Then we will establish each subsequent NRW zone as the project completes. This gives us the ability to start using the new zoning solution as early as possible throughout the project. For example, if we started at the top of the zone map we would then know the exact NRW of a specific zone early in the process, giving us additional intelligence in detecting leaks. This approach optimizes the leak detection process of phase 2 and 3.

Keep in mind ***the commissioning of the tool could illustrate some unknowns in your system that we will have to work through as a team***, like possible old valves that are unknown and open, potentially "leaking through". If a system valve is discovered and documented to be inadvertently bleeding into another zone, that would be outside of Integrity Water and Energy's scope. But the NRW tool would be providing the needed process and information to document the cross flow between zones. Your utility

system has very limited areas where challenges like this may exist, most likely related to the old portions of the system downtown.

Additional Leak Detection Tools

Integrity Water and Energy also worked with the Big Sandy Water District team to understand any additional needs related to future leak detection. We collectively determined that the team would benefit from additional leak detection tools and training in order to identify, locate, and pinpoint leaks. To support this need, as part of this project Integrity Water and Energy will provide **listening sticks, ground microphones, and correlators** to your team, and include manufacturer-led training. During final contract development we will have multiple manufacturers demonstrate the different types of listening sticks, ground microphones, and correlators available so that the team can select the products that best work for Big Sandy Water District. These new tools will also include two days of training to ensure your team will be fully prepared to support the system after the project.

We envision your team using these new tools in conjunction with the daily NRW tool. If the tool alerts your team for multiple consecutive days, your team will be able to use the above tools to investigate the alerted zone, identify any new leaks, and resolve them. This process and package will allow your team to support the system well into the future.

Water Meter Upgrades

Multiple options exist for meter upgrades, but after extensive discussion with the Big Sandy Water District team to explore all options, the Integrity Water and Energy recommended solutions are shown below.

Residential Water Meter Upgrade

We will replace existing residential meters with solid state water meters (see figure to the right). Integrity Water and Energy has strategic partnership with Diehl, Sensus, and Master Meter. Due to your team's past partnership with Neptune we have begun a relationship with a local Neptune representative and look forward to partnering with Neptune for this project.

Integrity Water and Energy will guarantee 99% accuracy of the MACH 10 meter for up to a 20-year period and will test a sample of the meters for accuracy each year during the measurement and verification process.

Figure 16: *Neptune residential MACH 10 meter.*

Commercial Water Meter Upgrade

Commercial meters will also be replaced with Neptune MACH 10 meters, which are solid state meters available in sizes up to 12 inch pipe diameter. These solid state meters provide a much more accurate reading at lower water flow.

Figure 17: *Neptune commercial MACH 10 meter.*

Construction of New Zones

The above-mentioned MACH 10 meter will also be used to establish the zones required for "phase 3" of the leak detection process, which will provide daily notification of leaks. The selection of new zones and new zone meter locations were collaboratively developed by the Big Sandy Water District team and Integrity Water and Energy. The team spent many hours determining the optimal size and location of each zone based on a variety of factors, balancing the desire to create smaller zones (to more quickly pinpoint leaks), while minimizing the overall construction cost. The team then determined the recommended placement of zone meter pits based on the lay of the land and other factors inherent to Big Sandy Water District's water system. This resulted in our recommendation to construct 13 new zones and automation of 14 existing for a total of 27 new zones (see zone figure listed earlier in this section). Each new meter pit will require:

Scope of Meter Upgrades

Meter Size	Active Billing Meters	Inactive Billing Meters (with usage since Dec 2021)	Zone Meters	Total
5/8	4,777	156		4,933
1	12			12
1 1/2	1			1
2	4			4
3	5		9	14
4	4		7	11
6			11	11
8			2	2
Total	**4,803**	**156**	**29**	**4,988**

Figure 18: *Scope of meter upgrades.*

- Excavation of the new location
- Installation of the new meter pit, meter, bypasses, valves, and test ports
- Tie-in to the existing system

Changeout Process

Integrity Water and Energy puts significant effort into managing the meter changeout process to make it as seamless as possible for Big Sandy Water District and their customers, increasing awareness ahead of time and on the day of the changeout. We will start by developing a communication package for you to submit to the local paper to make customers aware of the project, why this investment is being made, benefits to the utility, city and customers, and what to be aware of during the project.

During the changeout process Integrity Water and Energy will work closely with your team, providing 2-weeks advanced notice of scheduled changeouts, and updates as needed on a regular basis. At the time of changeout, we will provide "door hangers" to ensure customers know that their water meter has been changed. We will also knock on every door when possible to make customers aware that we will be shutting their water off for the changeout.

During changeout Integrity Water and Energy will take a picture of the existing meter and current reading, then install the new meter and take a picture of the new meter and new reading. Then before moving to the next installation, we will validate that there are no leaks on the customer's system. At this point the team has confirmed the meter installation, that there are no leaks present, and confirmed that the meter is communicating with the AMI system. The team will then move to the next installation and repeat the process. Every meter will be GPS located and data provided to Big Sandy Water District.

The pre and post meter installation information will be available to your team the next day by Integrity Water and Energy, to help answer any questions or concerns about the changeout process. This information will be maintained online for 1 year after the project as well as provided to the utility electronically.

For more details about the overall construction process, refer to the Construction Management Process portion of the Project Team section of the proposal.

Automatic Meter Reading

The new metering system will be upgraded to an Advanced Metering Infrastructure (AMI) system, which is best-in-class technology coupled with Integrity Water and Energy's advanced daily NRW detection system. AMI systems allow for real-time automatic billing, as well as alarming based on NRW increases and system alarms (see examples below).

Integrity Water and Energy will guarantee a system uptime rate of at least ***80% coverage of your system***, ensuring the system will be available almost any time for reading and reporting NRW. Big Sandy Water District ***is 500 square miles of beautiful Eastern Kentucky***, but that beauty presents a challenge when trying to communicate water data. Integrity Water and Energy analyzed multiple technologies and approaches in order to determine the best investment and coverage for your system. The coverage map is show below.

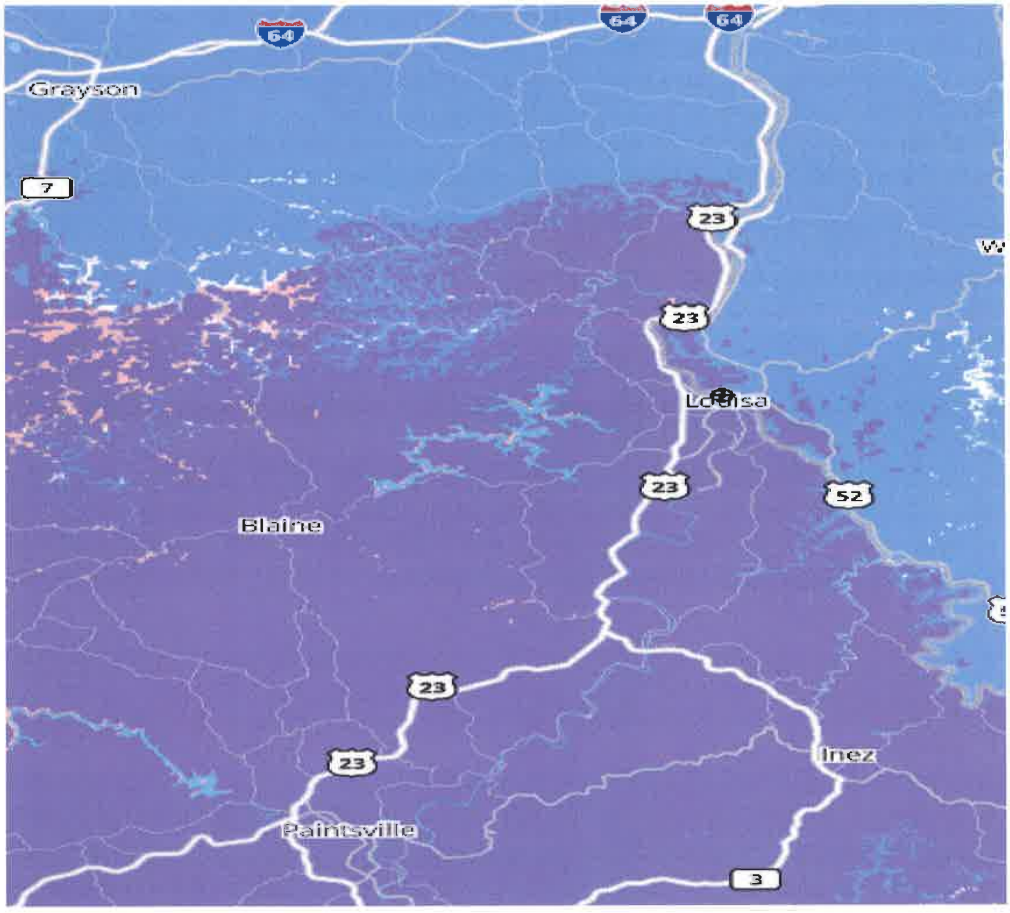


Figure 19: *AMI proposed coverage map.*

With AMI, creating a bill is as simple as pushing a button. Your team will no longer have to physically drive the entire system every month for billing as your team currently does. Driving the system for readings can be challenging and provides no value to the utility or the customer. Even though your team is in a vehicle driving the system it's not an enjoyable role on rainy days, cold days, or the extreme heat of summer. Please consult with your team.

Benefits to Customer Service

AMI also provides new information to help resolve customer complaints in real-time. In the past your billing team would have to "take a call", have someone travel and physically re-read a meter, report back to the office, then contact the customer to discuss the data. With the new AMI system, the billing team can review the customer's bill in real-time and email an image to the customer while on the phone. Often the AMI system will also show the time of an event, allowing the billing team and customer to narrow down the specific cause of the event (customer water leak, hose left on, toilet valve, etc.). This capability provides information and quick responses for your customers. This allows your team to focus on more valuable services, versus spending significant time reading meters.

Integrity Water and Energy will not record or realize any savings from labor associated with not reading meters.

The AMI system will provide many additional benefits to the utility and the city through real-time notifications. These alerts will provide benefits ranging from reduction of theft to identification of customers leaks. Examples include:

- **Customer Leak Notification** - This alert will allow your team to proactively contact your customer to make them aware that they have a leak. This is in addition to the leak detection work discussed previously.
- **Reverse Flow** - This alert will make the utility aware of reverse flow through a meter, which is against code and must be addressed. It's possible that the reverse flow may be due to an account that is stealing water by running the meter backward. When theft is detected and remedied by the utility, that information normally spreads like wildfire and "water thefts" stop quickly. We don't expect that Big Sandy Water District has much of this, but currently there is no way to determine this with the existing system.
- **Empty Pipe** - Empty pipe will allow the utility to know that there has been a major break and alert the customer in case they are not home or haven't realized they have an outage.
- **Low Battery** - This alert allows the utility team to address aging batteries before they cause an issue.

There are many other alerts that are beneficial to the utility as well as the customer that will be discussed, and training will be provided as part of the project.

The below figure illustrates a typical leak in the system. In this example the water volume rises over time until the leak is found and resolved. The daily NRW tool will "alarm" when the water in a zone is out of range. Then after a leak is resolved will demonstrate that the repair was successful.

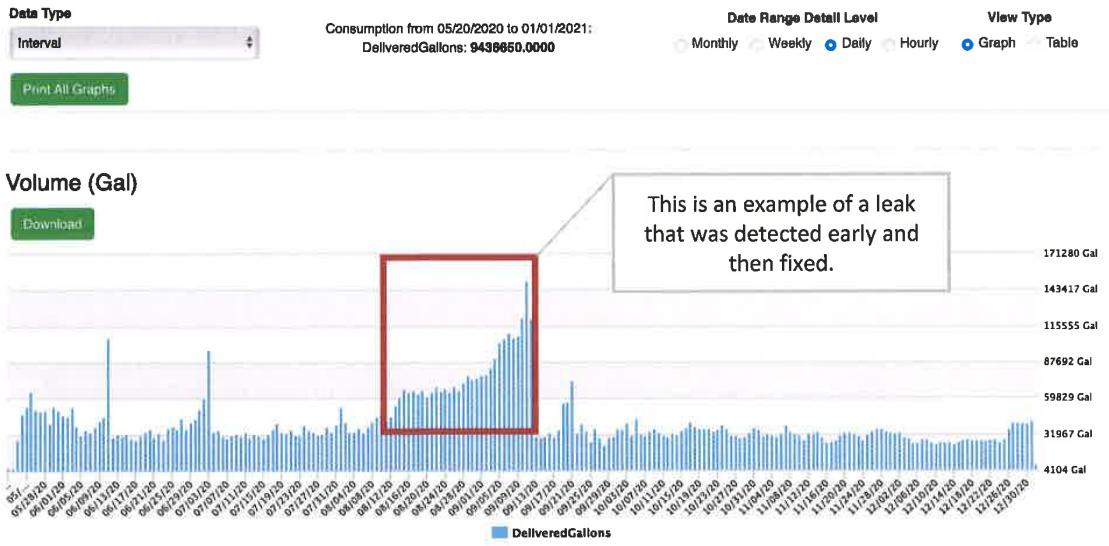


Figure 20: *Example of reporting available in NRW tool.*

Foundational Utility System Knowledge

Integrity Water and Energy has interviewed the Big Sandy Water District team and surveyed key assets throughout the system to understand your utility system with a focus on how to reduce NRW. Drinking water tends to be underappreciated until the "tap runs dry" or there is a water quality violation. Many people think about the problems of Flint, Michigan water, but there are many violations in Kentucky as well.

Integrity Water and Energy has also reviewed Big Sandy Water District's water billing data and purchase data in detail. Following are high level summary findings from the data.

At a high level, the vast majority of Big Sandy Water District accounts are Residential, and most meters are 5/8-inch.

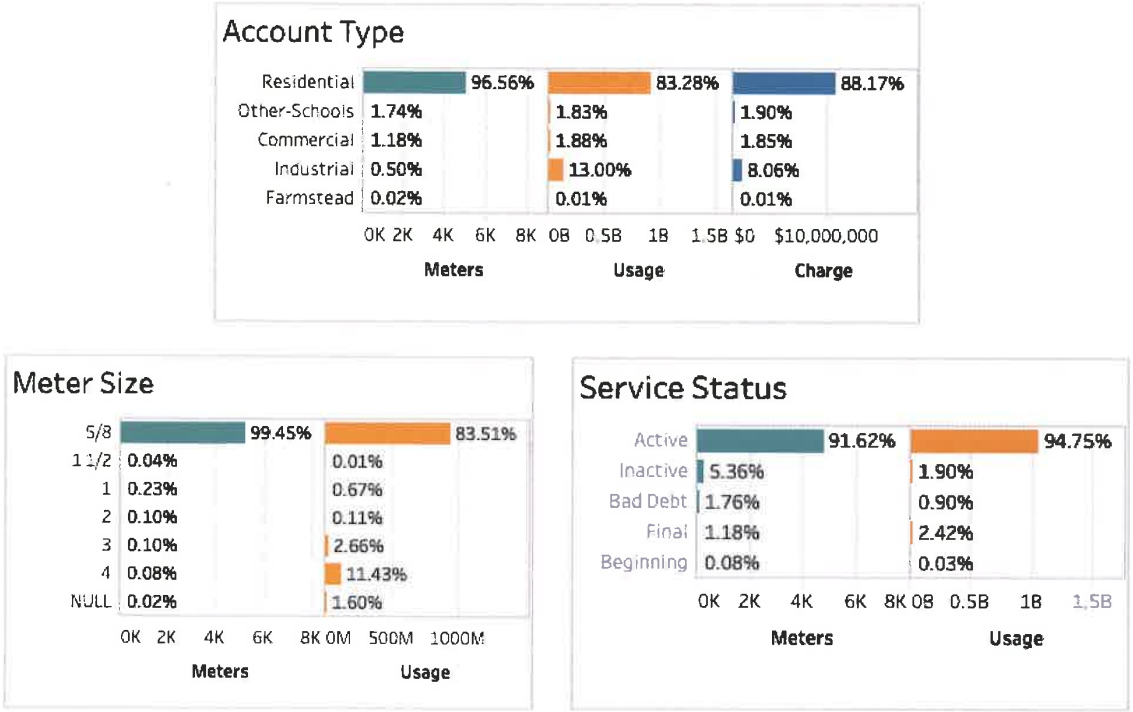


Figure 21: *Summarized high level usage and billing data.*

Residential Customer Profile

- The average usage for residential customers is about 3,500 gallons per month (2,800 using the median).
- Nearly all (99.9%) residential customers have a 5/8-inch meter.
- Residential customers make up 83% of water usage and 88% of revenue. The proportion of revenue is higher because residential customers have a higher overall revenue per gallon than commercial, industrial, and other-schools.
- Residential customers account for 97% of the meters in our data set.

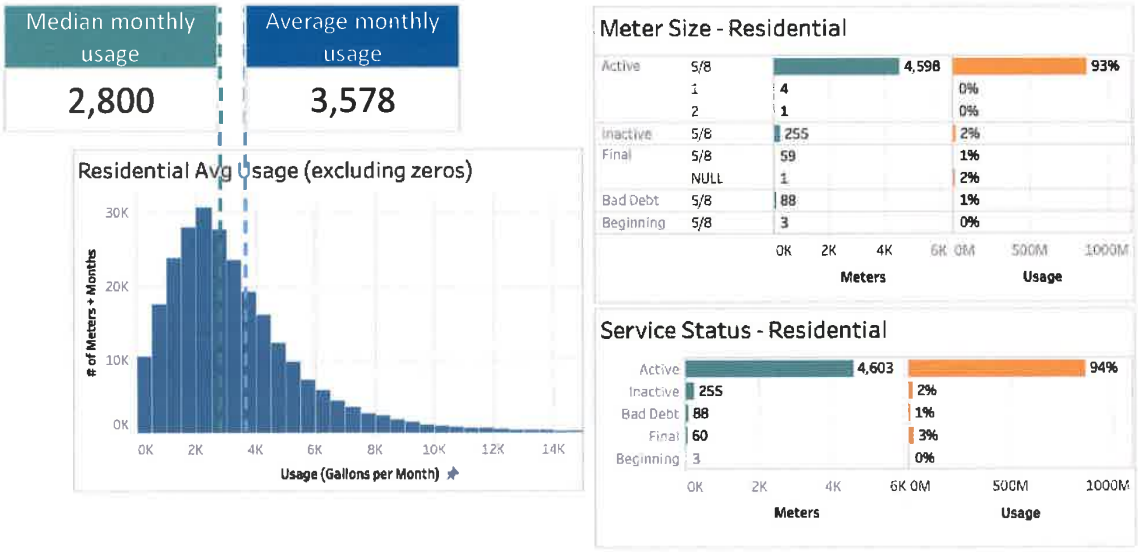
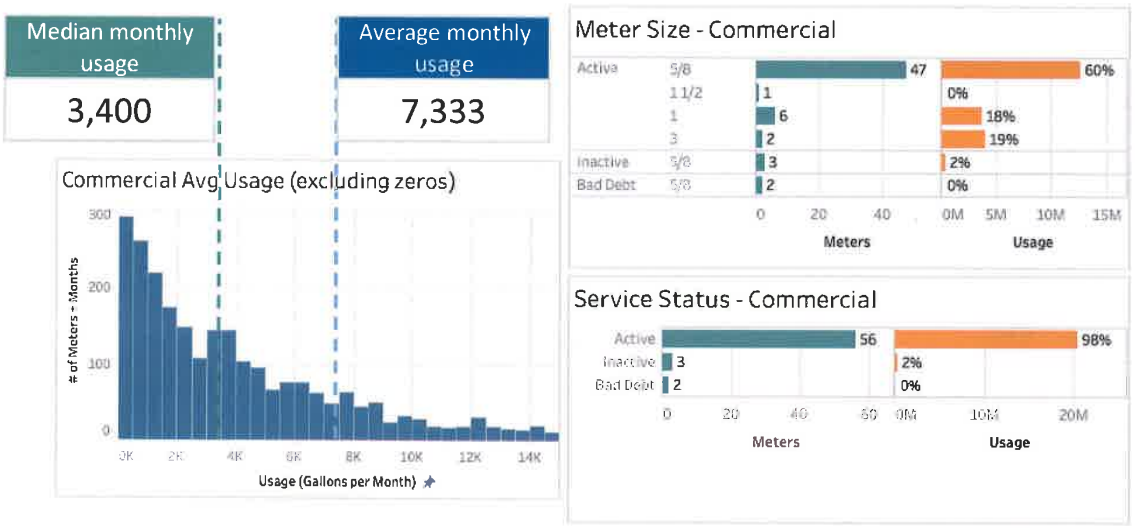


Figure 22: *Summarized data focusing on residential customers.*

Commercial Customer Profile

- The average usage for commercial customers is about 7,300 gallons per month, but the average is skewed high due to a few high-usage outliers. So using the median instead, most commercial customers use about 3,400 gallons per month, somewhat similar to residential customers.
- Commercial customers have more variation in usage: some tend to be very high, and others low, depending on the type of business that drives water usage. The highest usage is T[redacted]s [redacted], which makes up 20% of the commercial usage in the last 3 years.
- Meter size varies, but 85% of commercial customers have a 5/8-inch meter.
- Commercial customers make up 2% of usage and 2% of revenue.
- Commercial customers account for only 1% of meters in our data set.



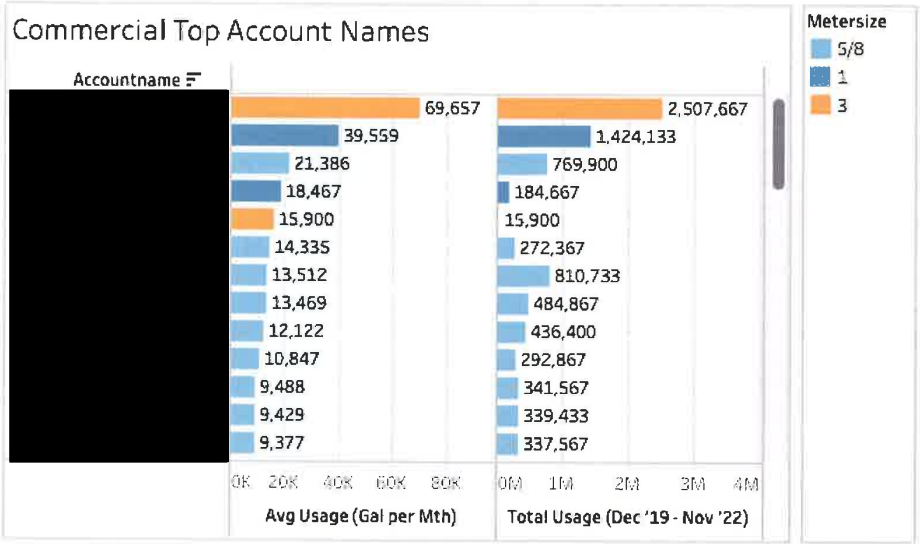


Figure 23: *Summarized data focusing on commercial customers.*

Industrial Customer Profile

- The average usage for industrial customers is skewed high by 3 high-usage outliers. After removing these 3 outliers, the average is about 10,000 gallons per month. Using the median instead, most commercial customers use about 3,500 gallons per month.
- The top 3 accounts make up 93% of the industrial usage in the last 3 years.
- Meter size varies, but roughly half (58%) of industrial customers have a 5/8-inch meter.
- Industrial customers make up 13% of usage and 8% of revenue. Their share of revenue is less due to a lower rate structure.
- Industrial customers account for less than 1% of meters in our data set.

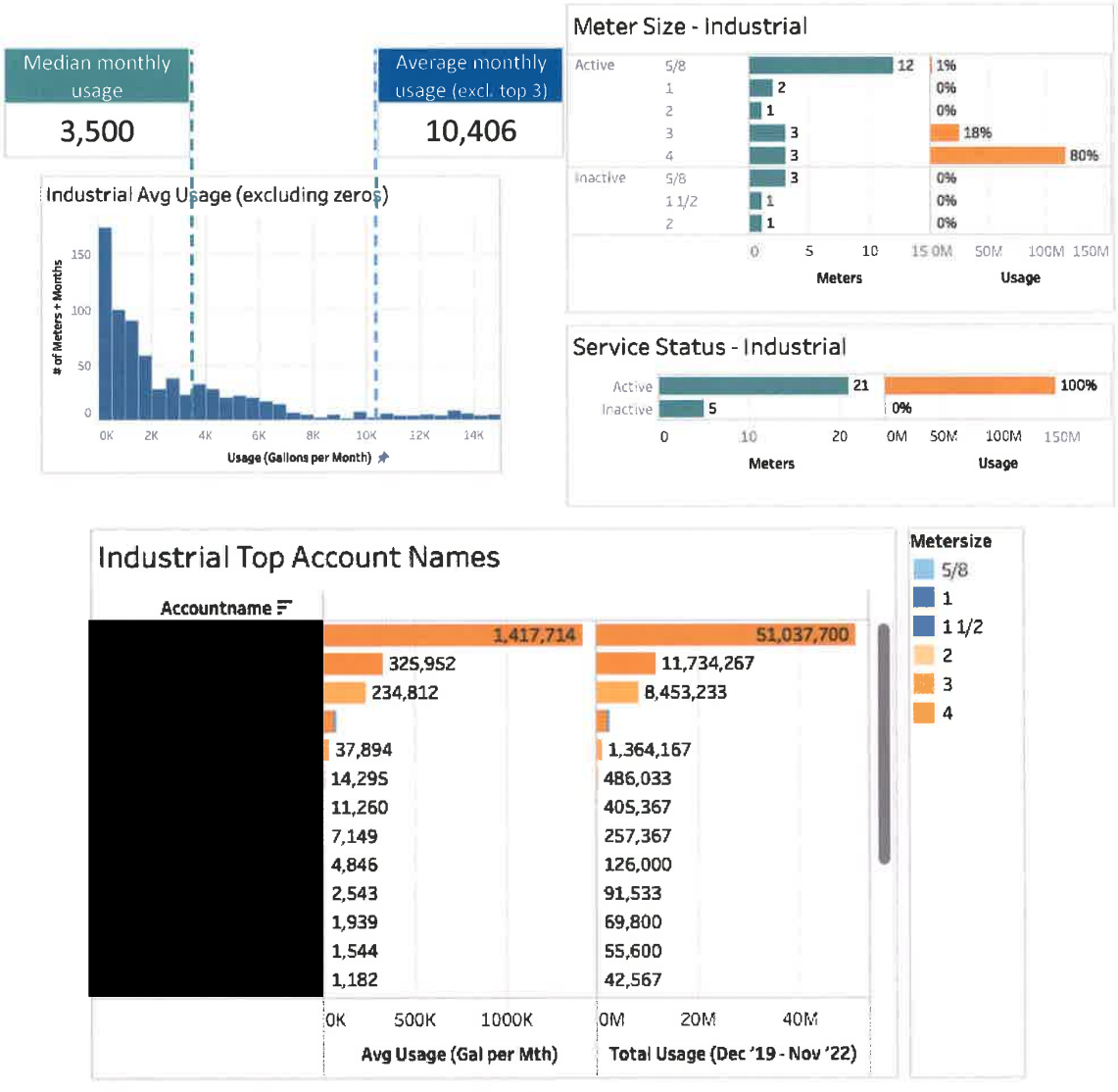


Figure 24: *Summarized data focusing on industrial customers.*

Other-Schools Customer Profile

- This category has 1 especially high-usage outlier. Excluding this outlier, the average usage for other-schools customers is about 2,300 gallons per month. But many other-schools accounts have very low monthly usage, so the median is much lower at 600 gallons per month.
- [redacted] has one 4-inch meter and three 5/8-inch meters. This customer makes up 56% of the other-schools usage in the last 3 years, and is the #4 high-usage account across all customer types.
- Several other-school customers have more than one account and meter, but not all of them are being used consistently.
- The top 10 accounts make up 85% of the other-schools usage in the last 3 years.
- Meter size varies, but 97% of other-schools customers have a 5/8-inch meter.
- Other-schools customers make up 2% of usage, revenue, and meters in our data set.

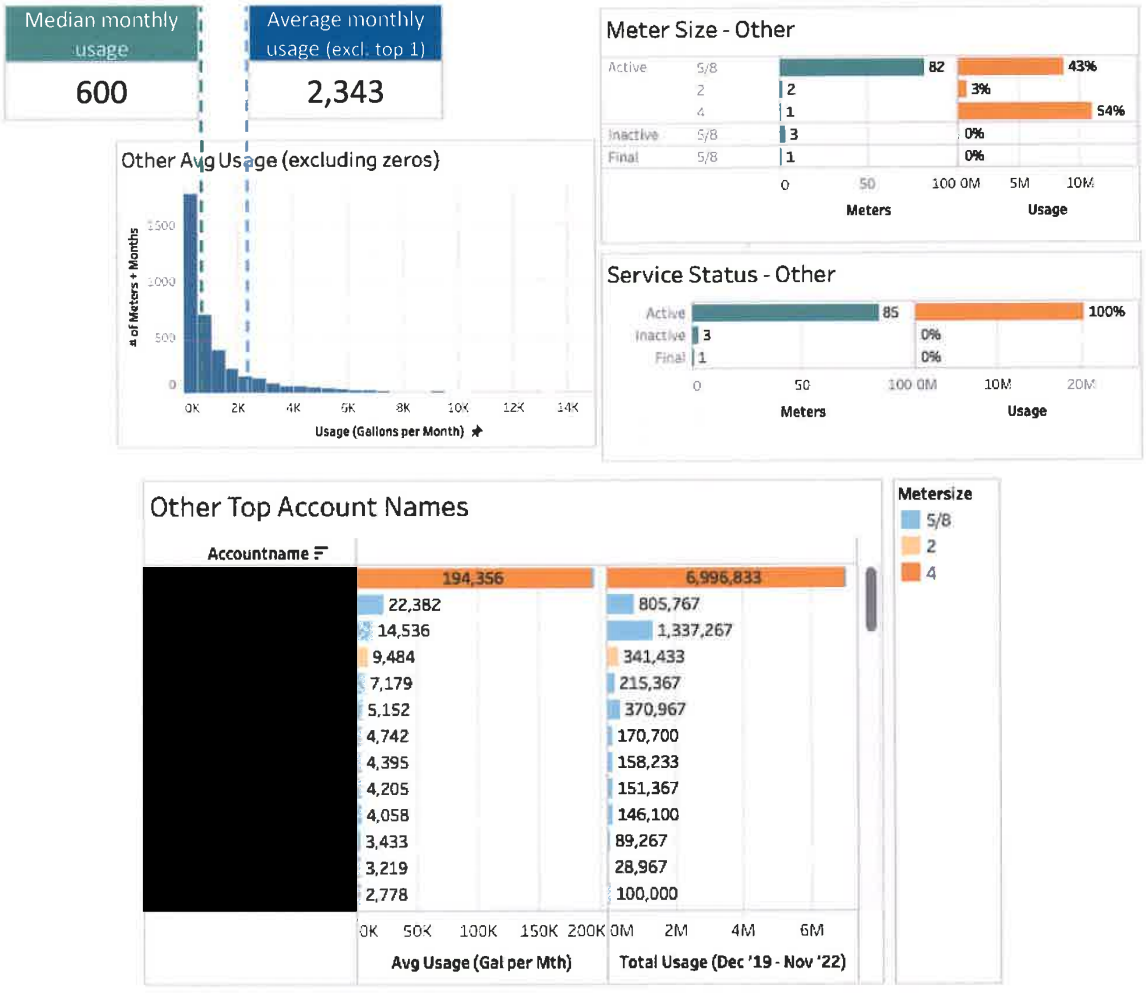


Figure 25: *Summarized data focusing on other-schools customers.*

System Review and Understanding

Integrity Water and Energy reviewed the water distribution system and surveyed active meters to understand the assets that your team manages. The below table summarizes the number of meters currently in the system.

Our team also requested 5+ years of purchase data and water billing data, which was used to populate the information in the Data Analysis section.

Then our team began to document the NRW and Unaccounted-For Water (UFW).

UFW and NRW

First let's describe what Non-Revenue Water (NRW) is, how to calculate NRW, and the what the history of Big Sandy Water District NRW has been.

- NRW = Purchased – Consumption
- When NRW is unknown, it is called Unaccounted For Water (UFW)

NRW exists for many reasons. Undocumented fire usage would be the best example. When the fire department is responding to a large fire, they are rightfully focused on saving lives and protecting assets. It is very common for fire departments to not report the water they use or report it at a low estimated number.

Examples of NRW:

1. Fire
2. Maintenance water for flushing that estimated low
3. Theft
4. Water line breaks
5. Leaks

Non-Revenue Water (NRW) is either intentionally not billed (for example, free water for a government building) or represents lost revenue for the utility. NRW reduction is Integrity Water and Energy's mission for your utility. The below figure demonstrates the different types of NRW and UFW, and how they are related.

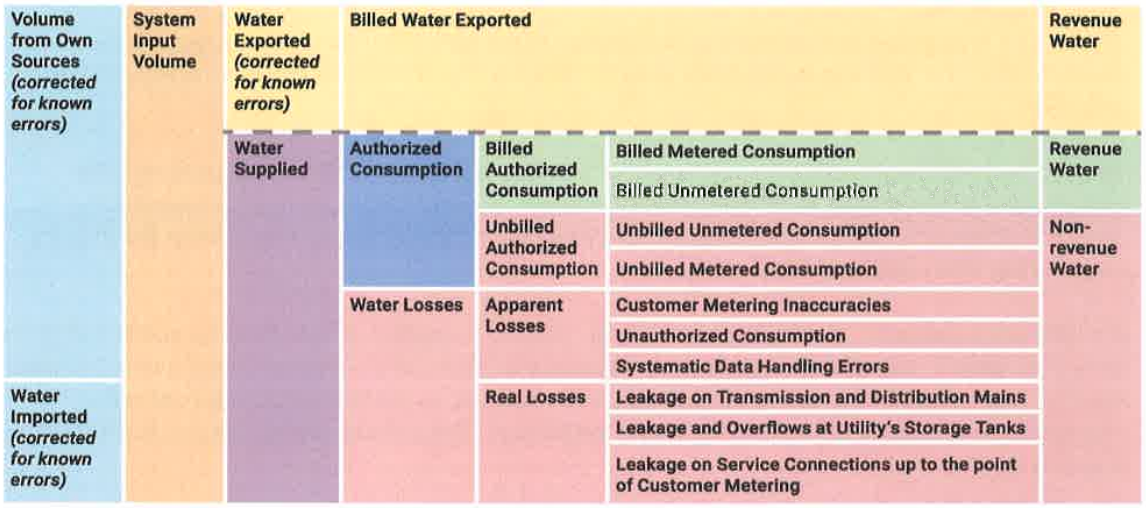


Figure 26: *Water usage chart.*

Per Kentucky Water Data the statewide average water losses are over 22% with a very wide variance system to system, some systems having over 70%. The best-in-class system performance is 10% or less. Many utilities are aging, and some losses aren't worth the resources to resolve the loss.

Data Analysis

Baseline Consumption and NRW

This section is intended to illustrate the complexities in the data and is for informational purposes. It demonstrates how that knowledge leads us to the process of guaranteeing meter accuracy and leak reduction.

This section contains detailed information about the data aggregation and analysis performed by Integrity Water and Energy. It shows the level of detail that went into validating the opportunity, analyzing different scenarios and strategies, and understanding the best options to meet the ongoing needs of Big Sandy Water District.

For initial data validation, our team compared the billed consumption data to financial audits during the same time period. Using the below example showing the 2021 audit, our water charges were 2% lower than the audit. Based on previous experience this is expected, as the billing data does not reflect charges/fees related to things like initial meter installation. This gives us confidence that our billing data is accurate.

Big Sandy Water District
Statement of Revenues, Expenses and Changes in Net Position
Proprietary Fund
For the year ended December 31, 2021

Revenues	
User fees	$ 2,602,146
Other water revenue	85,148
Other revenue	642
Total Revenues	2,687,936

Figure 27: *Excerpt from Big Sandy Water District 2021 audit.*

Another early step in the analysis was to understand how to accurately handle the billing data. The data we received was "flattened", requiring restructuring in order to properly analyze.

In the first example, the meter is at the same address, but the account was updated with a new customer. We can see that the usage shifted from one account to the next. To analyze the historical usage for this meter, the data needs to be reorganized, but we have to be careful not to double count some duplicate values (address, meter size, etc.). And for columns that truly have more than one value over time (account name, service status, etc.) we need to assign a "current" value for each meter to understand if the meter is currently active, where is it, who is it assigned to, etc.

Meter #	Acct #	Acct Name	Address	Status	Aug 2019	Sep 2019	Oct 2019	Nov 2019
30507007	[redacted]	[redacted]	[redacted]	Inactive	4000	6200	0	0
30507007	[redacted]	[redacted]	[redacted]	Active	0	0	2500	2500

Here's a more complicated example. This appears to be a rental property where the account is put in the name of the tenant, then moved back to the landlord multiple times. Again, for our analysis we used the most recent values for this meter.

Meter #	Acct #	Acct Name	Address	Status	Mar 2018	Jan 2019	Jan 2020	Jan 2021	Sep 2021	Sep 2022	Jan 2023
[redacted]		[redacted]	[redacted]	Bad Debt	4100	0	0	0	0	0	0
[redacted]		NAME 2	[redacted]	Inactive	0	200	0	0	0	0	0
[redacted]		NAME 3	[redacted]	Bad Debt	0	0	4600	0	0	0	0
[redacted]		NAME 2	[redacted]	Inactive	0	0	0	100	0	0	0
[redacted]		NAME 4	[redacted]	Bad Debt	0	0	0	0	900	0	0
[redacted]		NAME 2	[redacted]	Inactive	0	0	0	0	0	400	0
[redacted]		NAME 5	[redacted]	Active	0	0	0	0	0	0	2600

Here's one more example. In this case, the location was temporarily used for a different type of account with a different rate code (in this case the actual rate structure was the same), then switched back to a residential account.

				Rate		Mar 2018		Oct 2020		Jan 2023	
Meter #	Acct #	Type	Acct Name	Code	Address	Usage	Charge	Usage	Charge	Usage	Charge
34722996	[redacted]	Residential	[redacted]	1	[redacted]	100	$17.02	0	$0.00	0	$0.00
34722996		Other-Schools	[redacted]	4		0	$0.00	8000	$84.05	0	$0.00
34722996		Residential	[redacted]	1		0	$0.00	0	$0.00	2600	$34.74

To process the purchased water data we started with photos of the historical purchase record sheets from the five suppliers. We entered this data into a spreadsheet and then uploaded it to our SQL server to join with the billing/usage data. We later obtained Excel reports which validated our original purchase data.

A few months' data had to be estimated due to a dead battery and missing 1 month of data. But the impact is minimal.

To accurately join to the billing data, we subtracted 1 month from the purchased water "paid month", which matches Big Sandy Water District reporting, representing when the water was available for usage.

For the past 3 years (usage months: Jan '20 – Dec '22) 64% of the water was purchased from Kenova, and another 28% from Louisa.

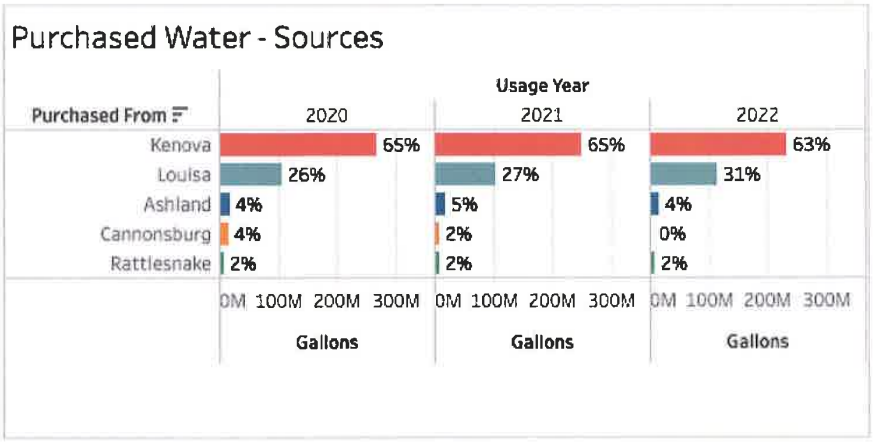


Figure 28: *Summary purchased water data.*

Looking at the historical trend, water purchased from Kenova doubled in March 2020, replacing water that was previously supplied by Ashland.

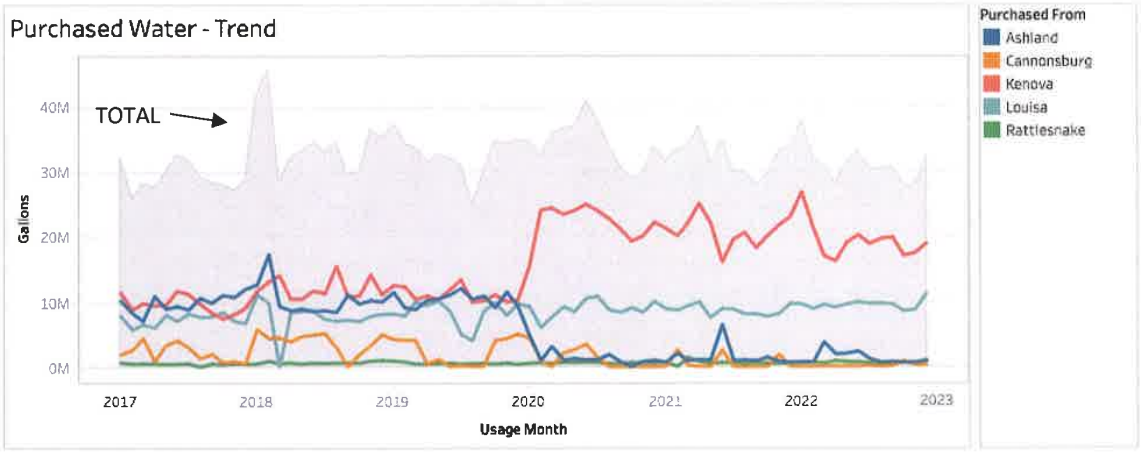


Figure 29: *Purchased water data trend.*

Integrity Water and Energy then reviewed the year-over-year usage (or customer billings) and found that the data was consistent enough to derive an accurate system-level baseline based on the average of the 3 years. The below figure shows Big Sandy Water District' 3-year usage (Dec '19 – Nov '22). We can see some seasonal trends, for example June/July are consistently the highest months of the year. We see some slight shifts in high/low trends, likely driven by different weather patterns or work/travel habits. But generally, the same trends exist in all 3 years. Based on this data, we feel confident in using the 3-year average for our baseline.

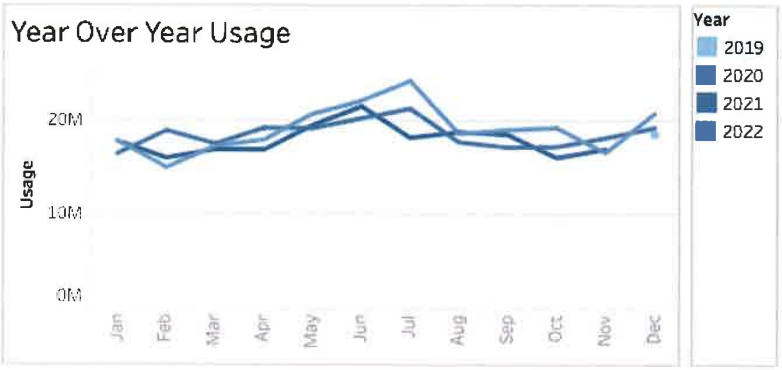


Figure 30: *Year over year usage (gallons) based on data provided by United Systems.*

The next step in the auditing process is to analyze the NRW. This begins with understanding your purchase meters from the suppliers. A survey of all meters was performed, confirming that the meters are being tested per Public Service Commission (PSC) requirements for water districts. Integrity Water and Energy then calculated the NRW using the data from your Monthly Operating Reports and your Billing System to create the NRW volume and percentage (see figure below).

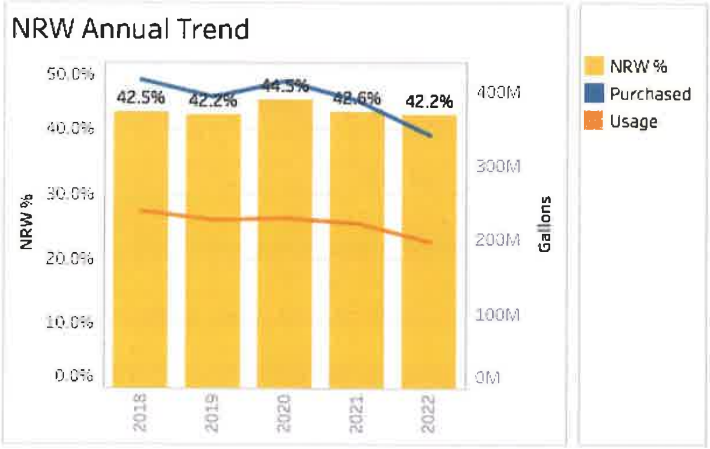


Figure 31: *% NRW trending over time, calculated based on purchase data vs. billed usage.*

Billing Rate Calculations

The next step in our process was to replicate the billing rate calculations. Using the water rate sheets provided by the Big Sandy Water District team, Integrity Water and Energy created a model to calculate billing amounts and validated that it matches the existing billing data with a **99.95% accuracy**.

The below figure is an example of some of the rate analysis that was performed by Integrity Water and Energy, which helped derive and validate our rate calculation methodology. In this example, we see two comparisons:

1) **Reported usage vs. reported charges:** We can see the "meter charge" for each meter size, where the charge is a flat horizontal line as usage increases, and once the rate threshold is met, we see the steady increase in charges calculated using the $/gallon rate. The different colors allow us to see the different rate structures based on meter size.
2) **Integrity Water and Energy's calculated charges vs. reported charges:** The tight grouping along a solid line indicates that our calculations are accurate for all meter sizes (colors). There were a handful of outliers where the calculations didn't match, but it amounted to less than 1% of the data.

Once **we confirmed the accuracy of the calculations**, the final model was calculated based on the updated rates that took effect Oct 2022.

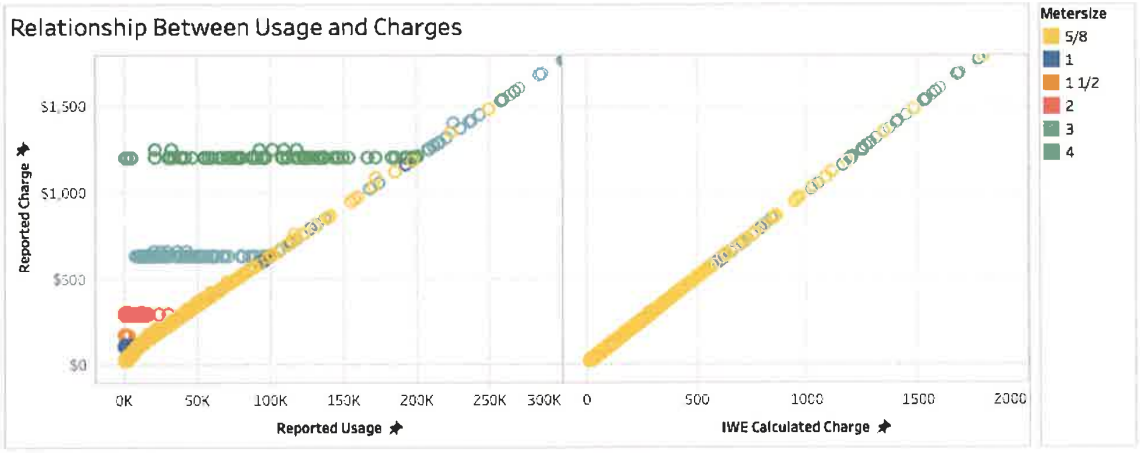


Figure 32: *Comparison of reported charges vs. reported usage, and calculated charges.*

Financial Impact Modeling Calculator

To be able to clearly illustrate and guarantee the financial benefits created by these solutions, Integrity Water and Energy created a financial impact calculator. The calculator uses 3 years of monthly consumption data (over 150K lines of data) to model Big Sandy Water District's financial benefits from reducing NRW. The calculator itself required a tremendous amount of effort, knowledge of your system and hours of programing (over 100+ hrs.) to create and test the tool against known audited data. The calculator accounts for all of the unique variables related to Big Sandy Water District. The graphic below illustrates the input variables for the modeling tool. For example, the Wholesale Production Cost of $2.76 per thousand gallons was calculated as an overall weighted cost per gallon for calendar year 2022 from the five suppliers.

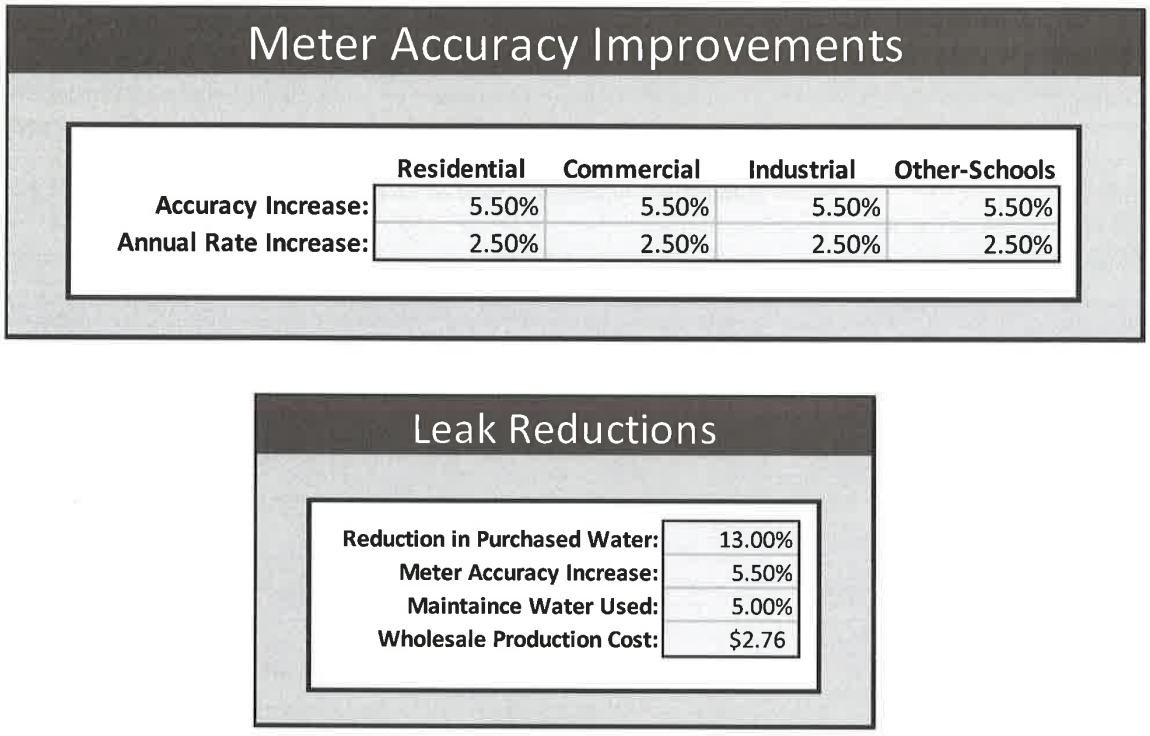


Figure 33: *Inputs to the financial impact calculator.*

The real time functionality and capabilities of the tool, related to meter inaccuracy and leak reduction, were demonstrated to your team. Your team should be proud of creating a tool like this, which is one of the most advanced decision-making tools in the industry. Most utilities don't have a tool providing the ability to make this level of knowledge-based decisions.

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APPLICATION EXHIBIT 3

Integrity Water and Energy
380 Missouri Avenue
Jeffersonville, In 47130

To whom it may concern,

Big Sandy Water District intends to sign a contract with Integrity Water and Energy to reduce our NRW and upgrade our water utility assets. In signing this Letter of Intent, Big Sandy Water District agrees to approve and sign the final contract within 60 days of presentation of final contract and move forward with the project. This is contingent on the final contract being:

- Approved by the Public Service Commission
- The same scope as the proposal delivered 3/10/23
- With no more than a 7% increase of the proposed investment amount
- With no more than a 7% decrease in the net financial benefit from the project, summarized below from the project proforma

Project Total Investment	Year 1 AMI Fee	Year 1 M&V Fee	Year 1 Additional Revenue	Year 1 Leak Savings	Year 1 Total Savings and Revenue	20 Year Total Net Financial Benefit
$3,991,369	$29,541	$5,000	$178,294	$137,735	$316,029	**$1,358,253**

If Integrity Water and Energy presents a final contract that is within the constraints listed above and Big Sandy Water District does not sign the contract with Integrity Water and Energy, then Integrity Water and Energy would bill Big Sandy Water District for the Development services listed below.

Development Work:

- Forensic audit of existing production and consumption data
- Test and documentation of existing Non-Revenue Water (NRW)
- Creation of revenue calculator based on meter accuracy
- Creation of system leak reduction calculator
- Planning and survey work for implementation of district metering zones
- Planning and development of ***Daily NRW recognition by zone*** establishing Big Sandy Water District as one of the best utilities in the region

Total development cost to be recovered.....$74,652

Paul E. Thomas 3-27-23

Paul Thomas
Chairman
Big Sandy Water District Commission

Brandon Marcum 3/27/23

Brandon Marcum
Account Executive
Integrity Water and Energy

APPLICATION EXHIBIT 4


Grayson
Louisa
Paintsville

APPLICATION EXHIBIT 5

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

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Report

RSA Advisors, LLC

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Sources & Uses

Dated 07/15/2023 | Delivered 07/15/2023

Sources Of Funds	
Par Amount of Bonds	$4,060,000.00
Total Sources	**$4,060,000.00**

Uses Of Funds	
Total Underwriter's Discount (1.750%)	71,050.00
Costs of Issuance	64,960.00
Deposit to Project Construction Fund	3,919,824.09
Rounding Amount	4,165.91
Total Uses	**$4,060,000.00**

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Net Debt Service

Date	Principal	Coupon	Interest	Total P+I	Expenses	Net New D/S
06/30/2024	90,000.00	3.200%	82,205.67	172,205.67	5,976.12	178,181.79
06/30/2025	90,000.00	3.150%	148,110.00	238,110.00	10,375.00	248,485.00
06/30/2026	100,000.00	3.100%	145,275.00	245,275.00	10,150.00	255,425.00
06/30/2027	110,000.00	3.100%	142,175.00	252,175.00	9,900.00	262,075.00
06/30/2028	120,000.00	3.100%	138,765.00	258,765.00	9,625.00	268,390.00
06/30/2029	130,000.00	3.100%	135,045.00	265,045.00	9,325.00	274,370.00
06/30/2030	145,000.00	3.100%	131,015.00	276,015.00	9,000.00	285,015.00
06/30/2031	155,000.00	3.150%	126,520.00	281,520.00	8,637.50	290,157.50
06/30/2032	170,000.00	3.200%	121,637.50	291,637.50	8,250.00	299,887.50
06/30/2033	180,000.00	3.300%	116,197.50	296,197.50	7,825.00	304,022.50
06/30/2034	195,000.00	3.450%	110,257.50	305,257.50	7,375.00	312,632.50
06/30/2035	210,000.00	3.600%	103,530.00	313,530.00	6,887.50	320,417.50
06/30/2036	225,000.00	3.750%	95,970.00	320,970.00	6,362.50	327,332.50
06/30/2037	245,000.00	3.850%	87,532.50	332,532.50	5,800.00	338,332.50
06/30/2038	260,000.00	3.950%	78,100.00	338,100.00	5,187.50	343,287.50
06/30/2039	280,000.00	4.000%	67,830.00	347,830.00	4,537.50	352,367.50
06/30/2040	305,000.00	4.100%	56,630.00	361,630.00	3,837.50	365,467.50
06/30/2041	325,000.00	4.150%	44,125.00	369,125.00	3,075.00	372,200.00
06/30/2042	350,000.00	4.200%	30,637.50	380,637.50	2,262.50	382,900.00
06/30/2043	375,000.00	4.250%	15,937.50	390,937.50	1,387.50	392,325.00
Total	**$4,060,000.00**	**-**	**$1,977,495.67**	**$6,037,495.67**	**$135,776.12**	**$6,173,271.79**

Yield Statistics

Average Coupon	3.8995826%
True Interest Cost (TIC)	4.0583531%
All Inclusive Cost (AIC)	4.5005907%

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Operation Of Project Construction Fund

Date	Principal	Rate	Interest	Receipts	Disbursements	Cash Balance
07/15/2023	332,614.08	4.0000000%	-	332,614.16	332,614.08	0.08
08/15/2023	320,755.15	4.0000000%	11,858.92	332,614.07	332,614.08	0.07
09/15/2023	321,815.53	4.0000000%	10,798.54	332,614.07	332,614.08	0.06
10/15/2023	322,879.42	4.0000000%	9,734.65	332,614.07	332,614.08	0.05
11/15/2023	323,946.82	4.0000000%	8,667.25	332,614.07	332,614.08	0.04
12/15/2023	325,017.77	4.0000000%	7,596.32	332,614.09	332,614.08	0.05
01/15/2024	326,092.23	4.0000000%	6,521.84	332,614.07	332,614.08	0.04
02/15/2024	327,170.25	4.0000000%	5,443.82	332,614.07	332,614.08	0.03
03/15/2024	328,251.85	4.0000000%	4,362.23	332,614.08	332,614.09	0.02
04/15/2024	329,337.02	4.0000000%	3,277.07	332,614.09	332,614.09	0.02
05/15/2024	330,425.77	4.0000000%	2,188.31	332,614.08	332,614.09	0.01
06/15/2024	331,518.12	4.0000000%	1,095.96	332,614.08	332,614.09	-
Total	**$3,919,824.01**	**-**	**$71,544.91**	**$3,991,369.00**	**$3,991,369.00**	**-**

Investment Parameters

Investment Model [PV, GIC, or Securities]	GIC
Default investment yield target	Unrestricted
Cash Deposit	0.08
Cost of Investments Purchased with Bond Proceeds	3,919,824.01
Total Cost of Investments	$3,919,824.09
Target Cost of Investments at bond yield	$3,922,055.98
Actual positive or (negative) arbitrage	2,231.89
Yield to Receipt	3.9999992%
Yield for Arbitrage Purposes	3.8724631%

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Primary Purpose Fund Proof Of Yield @ 3.9999992%

Date	Cashflow	PV Factor	Present Value	Cumulative PV
07/15/2023	332,614.08	1.0000000x	332,614.08	332,614.08
08/15/2023	332,614.07	0.9967050x	331,518.11	664,132.19
09/15/2023	332,614.07	0.9934209x	330,425.76	994,557.94
10/15/2023	332,614.07	0.9901475x	329,337.00	1,323,894.95
11/15/2023	332,614.07	0.9868850x	328,251.84	1,652,146.79
12/15/2023	332,614.09	0.9836332x	327,170.27	1,979,317.06
01/15/2024	332,614.07	0.9803922x	326,092.23	2,305,409.29
02/15/2024	332,614.07	0.9771618x	325,017.75	2,630,427.04
03/15/2024	332,614.08	0.9739420x	323,946.83	2,954,373.87
04/15/2024	332,614.09	0.9707329x	322,879.44	3,277,253.31
05/15/2024	332,614.08	0.9675343x	321,815.54	3,599,068.85
06/15/2024	332,614.08	0.9643463x	320,755.16	3,919,824.01
Total	**$3,991,368.92**	**-**	**$3,919,824.01**	**-**

Composition Of Initial Deposit

Cost of Investments Purchased with Bond Proceeds	3,919,824.01
Adjusted Cost of Investments	3,919,824.01

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Proof of Bond Yield @ 3.8724631%

Date	Cashflow	PV Factor	Present Value	Cumulative PV
07/15/2023	-	1.0000000x	-	-
02/01/2024	172,205.67	0.9793346x	168,646.97	168,646.97
08/01/2024	74,055.00	0.9607326x	71,147.05	239,794.03
02/01/2025	164,055.00	0.9424839x	154,619.20	394,413.23
08/01/2025	72,637.50	0.9245819x	67,159.32	461,572.55
02/01/2026	172,637.50	0.9070199x	156,585.65	618,158.20
08/01/2026	71,087.50	0.8897915x	63,253.05	681,411.25
02/01/2027	181,087.50	0.8728903x	158,069.52	839,480.77
08/01/2027	69,382.50	0.8563101x	59,412.94	898,893.71
02/01/2028	189,382.50	0.8400449x	159,089.81	1,057,983.51
08/01/2028	67,522.50	0.8240887x	55,644.53	1,113,628.04
02/01/2029	197,522.50	0.8084355x	159,684.20	1,273,312.24
08/01/2029	65,507.50	0.7930796x	51,952.66	1,325,264.90
02/01/2030	210,507.50	0.7780154x	163,778.09	1,489,042.99
08/01/2030	63,260.00	0.7632374x	48,282.40	1,537,325.39
02/01/2031	218,260.00	0.7487401x	163,420.01	1,700,745.39
08/01/2031	60,818.75	0.7345181x	44,672.47	1,745,417.86
02/01/2032	230,818.75	0.7205663x	166,320.20	1,911,738.07
08/01/2032	58,098.75	0.7068794x	41,068.81	1,952,806.88
02/01/2033	238,098.75	0.6934526x	165,110.19	2,117,917.07
08/01/2033	55,128.75	0.6802808x	37,503.03	2,155,420.10
02/01/2034	250,128.75	0.6673592x	166,925.71	2,322,345.81
08/01/2034	51,765.00	0.6546830x	33,889.66	2,356,235.48
02/01/2035	261,765.00	0.6422476x	168,117.94	2,524,353.41
08/01/2035	47,985.00	0.6300484x	30,232.87	2,554,586.29
02/01/2036	272,985.00	0.6180809x	168,726.82	2,723,313.10
08/01/2036	43,766.25	0.6063407x	26,537.26	2,749,850.36
02/01/2037	288,766.25	0.5948236x	171,764.98	2,921,615.34
08/01/2037	39,050.00	0.5835252x	22,786.66	2,944,402.00
02/01/2038	299,050.00	0.5724414x	171,188.60	3,115,590.59
08/01/2038	33,915.00	0.5615681x	19,045.58	3,134,636.18
02/01/2039	313,915.00	0.5509014x	172,936.22	3,307,572.39
08/01/2039	28,315.00	0.5404373x	15,302.48	3,322,874.87
02/01/2040	333,315.00	0.5301719x	176,714.26	3,499,589.13
08/01/2040	22,062.50	0.5201016x	11,474.74	3,511,063.87
02/01/2041	347,062.50	0.5102225x	177,079.09	3,688,142.96
08/01/2041	15,318.75	0.5005310x	7,667.51	3,695,810.47
02/01/2042	365,318.75	0.4910237x	179,380.16	3,875,190.63
08/01/2042	7,968.75	0.4816969x	3,838.52	3,879,029.15
02/01/2043	382,968.75	0.4725473x	180,970.85	4,060,000.00
Total	**$6,037,495.67**	**-**	**$4,060,000.00**	**-**

Derivation Of Target Amount

Par Amount of Bonds	$4,060,000.00
Original Issue Proceeds	$4,060,000.00

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Derivation Of Form 8038 Yield Statistics

Maturity	Issuance Value	Coupon	Price	Issuance Price	Exponent	Bond Years
02/01/2024	90,000.00	3.200%	100.000%	90,000.00	0.5444444x	49,000.00
02/01/2025	90,000.00	3.150%	100.000%	90,000.00	1.5444444x	139,000.00
02/01/2026	100,000.00	3.100%	100.000%	100,000.00	2.5444444x	254,444.44
02/01/2027	110,000.00	3.100%	100.000%	110,000.00	3.5444444x	389,888.89
02/01/2028	120,000.00	3.100%	100.000%	120,000.00	4.5444444x	545,333.33
02/01/2029	130,000.00	3.100%	100.000%	130,000.00	5.5444444x	720,777.78
02/01/2030	145,000.00	3.100%	100.000%	145,000.00	6.5444444x	948,944.44
02/01/2031	155,000.00	3.150%	100.000%	155,000.00	7.5444444x	1,169,388.89
02/01/2032	170,000.00	3.200%	100.000%	170,000.00	8.5444444x	1,452,555.56
02/01/2033	180,000.00	3.300%	100.000%	180,000.00	9.5444444x	1,718,000.00
02/01/2034	195,000.00	3.450%	100.000%	195,000.00	10.5444444x	2,056,166.67
02/01/2035	210,000.00	3.600%	100.000%	210,000.00	11.5444444x	2,424,333.33
02/01/2036	225,000.00	3.750%	100.000%	225,000.00	12.5444444x	2,822,500.00
02/01/2037	245,000.00	3.850%	100.000%	245,000.00	13.5444444x	3,318,388.89
02/01/2038	260,000.00	3.950%	100.000%	260,000.00	14.5444444x	3,781,555.56
02/01/2039	280,000.00	4.000%	100.000%	280,000.00	15.5444444x	4,352,444.44
02/01/2040	305,000.00	4.100%	100.000%	305,000.00	16.5444444x	5,046,055.56
02/01/2041	325,000.00	4.150%	100.000%	325,000.00	17.5444444x	5,701,944.44
02/01/2042	350,000.00	4.200%	100.000%	350,000.00	18.5444444x	6,490,555.56
02/01/2043	375,000.00	4.250%	100.000%	375,000.00	19.5444444x	7,329,166.67
Total	**$4,060,000.00**	**-**	**-**	**$4,060,000.00**	**-**	**$50,710,444.44**

Description of Bonds

Final Maturity Date	2/01/2043
Issue price of entire issue	4,060,000.00
Stated Redemption at Maturity	4,060,000.00
Weighted Average Maturity = Bond Years/Issue Price	12.547 Years
Bond Yield for Arbitrage Purposes	3.8724631%

Uses of Proceeds of Issue

Proceeds used for accrued interest	-
Proceeds used for bond issuance costs (including underwriters' discount)	136,010.00
Proceeds used for credit enhancement	-
Proceeds allocated to reasonably required reserve or replacement fund	-

Disclosure

Municipal Advisor Disclosure of Conflicts of Interest and Other Information
RSA Advisors, LLC ("RSA Advisors")
:
RSA Advisors is a registered municipal advisory firm registered with the Securities and Exchange Commission (the "SEC") and the Municipal Securities Rulemaking Board (the "MSRB"). In accordance with MSRB
rules, this disclosure statement is provided by RSA Advisors to each client prior to the execution of its advisory agreement with written disclosures of any material conflicts of interest and legal or
disciplinary events that are required to be disclosed with respect to providing financial advisory services pursuant to MSRB Rule G-42(b) and (c) (ii).
:
RSA Advisors employs a number of resources to identify and subsequently manage actual or potential conflicts of interest. These resources include the implementation of policies and procedures and a supervisory structure.
:
General Conflict of Interest Disclosures
:
Disciplinary History- As a registered municipal advisory firm registered with the "SEC" and the "MSRB", our disciplinary events are required to be disclosed on our forms MA and MA-I filed with the SEC. To review the disclosures on these forms, you may access them electronically via the SEC's Electronic Data Gathering, Analysis, and Retrieval System (EDGAR) at: www.sec.gov
:
Compensation Based- The fees due under a Municipal Advisor Agreement may be based on the size of the transaction and the payment of such fees shall be contingent upon the closing of the transaction
While this form of compensation is usual and customary in the municipal securities market, this may present a conflict of interest. RSA Advisors believes that this conflict of interest will not impair our ability to render unbiased advice or to fulfill our fiduciary duty to the client.
Sponsorships and Donations- Upon request, RSA Advisors may provide sponsorships or donations to various municipal organizations (to which you may be a member), charitable organizations
Or client sponsored events. RSA limits the size of any such sponsorship or donation to a reasonable level taking into consideration various matters such as the purpose of the organization, other sponsorships or donations made to the organization and RSA's role and physical presence in the community and the state.
:
Other Municipal Advisory Relationship- RSA Advisors serves a wide variety of clients that may potentially have interests that could have a direct or indirect impact on the interests of the client.
RSA Advisors could potentially face a conflict of interest arising from these competing client interests. None of these other relationships or engagements would impair RSA Advisors' ability to fulfill its regulatory duties to the client.
To our knowledge, following reasonable inquiry, we are not aware of any actual or potential conflicts of interest that could reasonably be anticipated to impair our ability to provide advice to or on behalf of the client in accordance with the applicable standards of conduct of MSRB Rule G-42. If RSA Advisors becomes aware of any potential or actual conflict of interest after this disclosure, we will disclose the detailed information in writing to the client in a timely manner including a plan for mitigation.

DRAFT Financial Proforma - Big Sandy Water District

BIG SANDY INPUTS	
Project Term:	20
All-In Interest Rate:	4.47%
CPI Increase:	2.50%
Project Investment Amount:	$3,991,369
Additional Client Repair Budget:	$0
Total Project Investment:	$3,991,369

Year	Debt Service	AMI Services above AMR	M&V Services	Total Costs	Additional Revenue from Meters	Savings from Leaks	Total Savings and Revenue	Net Savings
0					$79,252	$67,188	$146,440	$146,440
1	$178,182	$23,541	$5,000	$206,723	$178,294	$137,735	$316,029	$109,307
2	$248,485	$23,541	$5,125	$277,151	$181,149	$141,179	$322,328	$45,177
3	$255,425	$23,541	$5,253	$284,219	$184,059	$144,708	$328,767	$44,548
4	$262,075	$23,541	$5,384	$291,000	$187,026	$148,326	$335,352	$44,352
5	$268,390	$23,541	$5,519	$297,450	$190,051	$152,034	$342,085	$44,635
6	$274,370	$23,541	$5,657	$303,568	$193,135	$155,835	$348,970	$45,402
7	$285,015	$23,541	$5,798	$314,354	$196,279	$159,731	$356,010	$41,655
8	$290,158	$23,541	$5,943	$319,642	$199,486	$163,724	$363,210	$43,568
9	$299,888	$23,541	$6,092	$329,521	$202,755	$167,817	$370,572	$41,052
10	$304,023	$23,541	$6,244	$333,808	$206,089	$172,013	$378,102	$44,294
11	$312,633	$23,776	$6,400	$342,809	$209,489	$176,313	$385,802	$42,993
12	$320,418	$24,014	$6,560	$350,992	$212,956	$180,721	$393,677	$42,685
13	$327,333	$24,254	$6,724	$358,311	$216,492	$185,239	$401,731	$43,420
14	$338,333	$24,497	$6,893	$369,722	$220,099	$189,870	$409,969	$40,247
15	$343,288	$24,742	$7,065	$375,094	$223,778	$194,617	$418,395	$43,300
16	$352,368	$24,989	$7,241	$384,598	$227,531	$199,482	$427,013	$42,415
17	$365,468	$25,239	$7,423	$398,129	$231,359	$204,469	$435,828	$37,699
18	$372,200	$25,492	$7,608	$405,300	$235,264	$209,581	$444,845	$39,545
19	$382,900	$25,746	$7,798	$416,445	$239,248	$214,820	$454,068	$37,623
20	$392,325	$26,004	$7,993	$426,322	$243,313	$220,191	$463,504	$37,182
Totals:	**$6,173,272**	**$484,164**	**$127,723**	**$6,785,159**	**$4,257,104**	**$3,585,592**	**$7,842,696**	**$1,057,537**

APPLICATION EXHIBIT 6

Integrity Water and Energy

AGREEMENT

between

Client

and

Integrity Water and Energy

Date of Submission

March 8, 2022

Draft

ARTICLE 1 – GENERAL PROVISIONS

1.1 The Agreement. This Agreement is made and entered into between Client ("Customer") and Integrity Water and Energy headquartered in Jeffersonville, IN on March 8, 2022.

1.2 Extent of the Agreement. This agreement, including all exhibits, attachments, and appendixes shown below, represents the entire agreement between Customer and Integrity Water and Energy. This agreement supersedes all previous documents, proposals, discussions, and negotiations. This agreement shall not be altered in any material way unless agreed upon in writing and signed by Customer and Integrity Water and Energy.

ARTICLE 1 – GENERAL PROVISIONS
ARTICLE 2 – INTEGRITY WATER AND ENERGY RESPONSIBILITIES
ARTICLE 3 – CUSTOMER RESPONSIBILITIES
ARTICLE 4 – CONSTRUCTION PROCESS
ARTICLE 5 – PROJECT CHANGES
ARTICLE 6 – PRICE AND PAYMEN
ARTICLE 7 – INSURANCE, IND MNITY, IABILITY
ATTACHMENT A – SCOPE OF WORK
ATTACHMENT B – WATER METER GU RANTEE
ATTACHMENT C – LEAK GUA NTEE
ATTACHMENT D – NOTICE TO PROCEED
ATTACHMENT E – CERTIFICATE OF OMPLETION
ATTACHMENT F – PROJECT HANDOVER DOCUMENTATION
ATTACHMENT G – MEASUREMENT AND VERIFICATION

In case of any conflicts between the terms of this Agreement and the terms of any Attachment or Exhibit to this Agreement, the terms of the Attachment or Exhibit will control.

1.3 Term. The term of this agreement has two major phases: construction, and Measurement and Verification.

1.3.1 The construction phase commences upon the approval of the Notice to Proceed, and ends upon project final completion, which is expected to be approximately twelve (12) calendar months from the commencement date. This term may be accelerated or decelerated based on actual construction completion.

1.3.2 The Measurement and Verification phase commences upon project final completion and continues for twenty (20) calendar years after project final completion (see Attachment G).

1.4 Reassignment. Customer may not reassign this agreement to any other third party in any way.

1.5 Termination by Customer With or Without Cause. Customer may terminate this agreement, with or without cause, with at least ten (10) calendar days' advance written notice to Integrity Water and Energy's home office, at the address listed in this agreement. Upon termination, a) Customer shall be liable to reimburse Integrity Water and Energy for all materials and services provided up to the date of termination, b) Customer shall be liable to Integrity Water and Energy for any costs directly resulting from the termination. Integrity Water and Energy shall have no further obligations to Customer on or after the termination date.

1.6 Termination by Integrity Water and Energy. If Customer defaults on their responsibilities in this agreement, Integrity Water and Energy may provide written notice to Customer of Integrity Water and Energy's intention to terminate the agreement if the default is not remedied. If Customer fails to remedy the default within ten (10) calendar days, Integrity Water and Energy may terminate this agreement in part or in whole, by providing written notice to Customer. Upon termination, Customer shall be liable to Integrity Water and Energy for any unpaid invoices, work already performed, and any costs and damages directly resulting from the termination.

1.7 Performance and Payment Bond. A Performance and Payment Bond will be delivered to Customer after signature of this contract. The Performance and Payment Bond is for the construction services in this contract and in no way covers a savings guarantee or warranty period. The Performance and Payment Bond will be retired one (1) year after the project is considered substantially complete.

1.8 Notice to Proceed. Once Customer has funding in place with the fiduciary, Customer shall provide evidence that full project funding has been acquired and is available, and Customer shall sign the Notice to Proceed (Attachment D) and provide it to Integrity Water and Energy. Integrity Water and Energy will then countersign, return to Customer, and start preparatory work within thirty (30) calendar days.

1.9 Contract Severability. If any requirements or provisions of this agreement are determined to be invalid or unenforceable under any applicable law, or otherwise are removed from the agreement, the other remaining requirements and provisions will not be affected and are still valid and enforceable.

1.10 Waiver. Failure of either party to enforce specific requirements of the other party does not constitute a waiver of subsequent requirements of either party to fulfill any and all requirements assigned to the respective parties in this agreement.

1.11 Notices. All notices and formal communication must be delivered, either in person to the below named individuals, or in writing mailed to the below addresses. Other day-to-day

communications about the project can be sent to the assigned Integrity Water and Energy project manager.

To Integrity Water and Energy:
Integrity Water and Energy
Attn: JD Bowyer
380 Missouri Ave, Suite A-5
Jeffersonville, IN 47130

To ClientUtilities:
ClientUtilities
Attn: Client
Address

1.12 Confidentiality. For the purposes of this agreement, confidential information is considered information that is in a human or machine-readable format and marked as "Confidential and Proprietary". All rights to confidential information are reserved by the originating party. In the course of doing business, confidential information may be shared to/from Integrity Water and Energy and Customer. Any confidential information that is shared, whether verbally, in writing, or electronically, must be protected by the receiving party, and must not be shared with any other party except for the express purposes contained in this agreement.

1.12.1 Upon request from either party, the receiving party will return all copies of the originating party's confidential information.

1.12.2 Neither party will be held liable for any release or disclosure of confidential information if the information is publicly available, or disclosure is explicitly authorized in writing by the originating party.

1.13 Transfer of Ownership. Risk and liability related to all materials and equipment provided by Integrity Water and Energy to Customer as part of this agreement, are transferred to Customer upon installation into Customer's system or facilities.

1.14 Perpetuation of 1.12 and 1.13. The restrictions in 1.12 Confidentiality and 1.13 Transfer of Ownership contained in this ARTICLE 1 – GENERAL PROVISIONS will continue to remain in effect after the completion or termination of this agreement.

Draft

ARTICLE 2 – INTEGRITY WATER AND ENERGY'S RESPONSIBILITIES

2.1 Construction. Integrity Water and Energy is responsible for construction of this project and will provide the necessary development, design, resources, subcontracts, tools, material, equipment, and oversight.

2.2 Subcontractors. Integrity Water and Energy may use subcontractors to complete portions of this project. Integrity Water and Energy shall manage and provide direction to subcontractors who are under contract with Integrity Water and Energy for work to complete this project. Integrity Water and Energy is not responsible for contractors employed by Customer or any services outside of the scope of this agreement.

2.3 Safety. Integrity Water and Energy is responsible for maintaining safety and order at the jobsites, including daily cleanup.

2.3.1 At completion of each job Integrity Water and Energy shall remove all tools, equipment, and surplus material. Debris and waste material, unless toxic or hazardous, shall be disposed of by Integrity Water and Energy or its subcontractor(s).

2.3.2 Any property damaged by Integrity Water and Energy, except for concrete or asphalt as described in Article 4, shall be repaired to original condition or replaced by Integrity Water and Energy unless directed otherwise by Customer.

2.3.3 Integrity Water and Energy shall comply with applicable federal, state, and municipal laws and regulations to ensure a safe work environment for all persons. Integrity Water and Energy is not responsible for any violations, unsafe actions, or unsafe conditions caused by individuals or work that is not directly under contract with Integrity Water and Energy, including Customer and those working for Customer.

2.4 Schedule and Invoicing. Integrity Water and Energy shall provide a project schedule and manage to the schedule with due diligence. Integrity Water and Energy will invoice based on job completion as described in Article 6.

2.4.1 Integrity Water and Energy will schedule zone approval dates once the work in a zone is complete. Integrity Water and Energy shall provide a report to Customer at that time showing the work that has been completed in that zone.

2.5 Construction Warranty. Integrity Water and Energy shall provide a one (1) year construction warranty starting from 100% substantial completion of the project. This warranty includes any equipment or material defects and any defects that are due to poor workmanship at the time of install by Integrity Water and Energy.

2.5.1 During the one (1) year construction warranty period, if Customer perceives a material deficit that results in a warranty claim, it must notify Integrity Water and Energy in writing within thirty (30) calendar days. Integrity Water and Energy's liability regarding the warranty claim is limited to the cost of replacing and/or repairing equipment covered in the scope of this agreement.

2.5.2 The warranty is void if any of the following occurs:
A) There have been repairs or modifications made by someone other than Integrity Water and Energy without Integrity Water and Energy's written consent.

B) The equipment or materials have been subject to misuse, vandalism, neglect, or accident.

C) Equipment or materials fail due to grit, debris, rocks, scaling, physical damage or other damages outside of Integrity Water and Energy control, including Force Majeure.

2.5.3 Upon receipt of a valid warranty claim, Integrity Water and Energy shall promptly fix all defects from workmanship or manufacturer error found within the warranty period and when the warranty is not void.

2.6 Handover Documentation. Integrity Water and Energy shall provide handover documentation to Customer at the time of handover. Handover documentation will include a list of manufacturer warranties that apply to this project. Operating manuals, engineering drawings, quality confirmation information, a list of material and equipment installed and location sites, and an overall project report will also be included.

2.7 AMI Costs. During the construction process, Integrity Water and Energy shall pay applicable fees to enable the AMI and reporting technology, excluding monthly utility bill. Upon substantial completion of the AMI system, Customer shall be responsible for all subsequent future costs to enable the AMI and reporting technology.

ARTICLE 3 – CUSTOMER'S RESPONSIBILITIES

3.1 Required Information. Customer shall provide to Integrity Water and Energy all information pertinent to this project. This includes, but is not limited to monthly billing data, utility locations, system specifications, updates to the list of active and inactive accounts/meters, etc.

3.2 Subcontractors. Customer shall not directly manage or provide direction to subcontractors working for Integrity Water and Energy on this project. If Customer wishes to make a request of the stated contractors, Customer shall provide the request to Integrity Water and Energy via written communication.

3.3 Safety. Customer shall support maintaining safety and order at the jobsites.

3.3.1 Customer shall be responsible for any removal and disposal of toxic or hazardous material related to work covered under this agreement, regardless of whether the material was discovered by Customer, Integrity Water and Energy, or any other entity.

3.3.2 Customer shall repair or replace any asphalt or concrete removed or damaged during zone meter installation or leak repair.

3.3.3 Customer shall provide a disposal site for construction debris from this project.

3.3.4 Customer shall comply with applicable federal, state, municipal laws and regulations to ensure a safe work environment for all persons. Customer shall comply to reasonable requests from Integrity Water and Energy and its subcontractors especially regarding maintaining a safe and orderly worksite.

3.4 Schedule. Customer will work with Integrity Water and Energy to maintain and not impede the implementation schedule specified in this agreement.

3.4.1 Customer shall designate at least one (1) person with the authority to grant approvals related to payment, project acceptance, and changes to the project. This person will be referred to as the Customer Representative.

3.4.2 If Customer becomes aware of a defect or has a concern about the workmanship throughout this project, it shall give prompt notice (within the next business day) in writing to Integrity Water and Energy.

3.4.3 Customer shall confirm easement requirements and gain or modify easements as necessary. Customer shall pay the related fees if applicable.

3.4.4 Customer shall coordinate any and all efforts, and cover related costs, required by government authorities (for example, the city of…).

3.4.5 Customer shall provide access to any applicable facilities, locations, equipment, or other resources, for Integrity Water and Energy and its agents and subcontractors, related to completing the scope of this agreement.

3.5 Limitation of Project Scope. Customer is responsible for leaks and water line repairs outside of Integrity Water and Energy's scope as defined in this agreement.

3.6 AMI Costs. Customer is responsible for monthly utility bills supporting the AMI system, during the construction process, and after project completion. Upon substantial completion of the AMI system, Customer shall be responsible for all future fees to enable the AMI and reporting technology.

3.7 Unserviceable Meters. Customer shall take corrective action regarding unserviceable meters (as defined in Attachment A), identified issues, or needed repairs that impede the project and are outside of Integrity Water and Energy's scope.

3.8 Utilities. Customer shall provide Integrity Water and Energy, and all agents and subcontractors, access to utilities needed for the completion of the scope of this agreement. Customer shall be responsible for the above stated utilities costs.

3.9 Other Warranties. Throughout the duration of the Measurement and Verification phase, Customer shall notify Integrity Water and Energy of all warranty issues or claims, outside of the Integrity Water and Energy one (1) year construction warranty, related to project-related equipment or material.

ARTICLE 4 – CONSTRUCTION PROCESS

4.1 Schedule. The work outlined in this agreement shall be completed per the schedule attached in Article 6.

4.2 Delays. Integrity Water and Energy will exercise due diligence to maintain the schedule, however delays are possible. Invoices shall be adjusted appropriately based on delays and to represent the actual percentage of work completed and materials purchased. Integrity Water and Energy shall not be penalized due to schedule delay.

4.2.1 If the project schedule is delayed due to actions or omissions of Customer, Customer's agents or employees, or due to Force Majeure, Integrity Water and Energy may submit to Customer in writing the reason for the delay, and may require equitable adjustment for changes in the project schedule, project costs, or project guarantees.

4.3 Equipment and Materials Staging Area. Customer shall provide, without charge, staging areas for equipment and materials. Staging area locations shall be mutually agreed upon by Customer and Integrity Water and Energy.

4.4 Substantial Completion Acceptance. Once installation, construction, or a service is complete in one of the major categories of work shown below, and functioning properly with only minor work remaining, that category is considered substantially complete.

Major Categories of Work:

- Zone Meter Installation
- >1" Billable meters
- <= 1" Billable meters
- AMI
- AMI system
- Non-Revenue Water (NRW) Tool
- Leak Detection
- Leak Repair
- Professional Services and Engineering
- Other (if applicable)

When a category of work is considered by Integrity Water and Energy to be substantially complete, Integrity Water and Energy will document said work. Integrity Water and Energy will then complete a Certificate of Completion (Attachment E) and will notify Customer and document the date of notification. Customer shall provide approval within ten (10) calendar days after notification of substantial completion. At this time any minor work remaining observed by the Customer and Integrity Water and Energy will be documented

on a punch list. All punch list items shall be documented within ten (10) calendar days after notification of substantial completion.

If both parties agree to the items remaining on the punch list, and which party is responsible to fix, and that the portion of the work reviewed is substantially complete, then Integrity Water and Energy and Customer shall sign and date the substantial completion section on the Certificate of Completion. If Customer rejects the substantial completion, Customer must provide the specific reason(s) for the rejection. Upon rejection, provided the reason(s) for rejection are covered in this agreement, Integrity Water and Energy will complete the necessary work and submit a revised Certificate of Completion to be reviewed and inspected by Customer.

If Customer does not respond within ten (10) calendar days of substantial completion notification, the work will be considered substantially complete.

4.4.1 When the substantial completion has been signed for each of the Major categories of work shown above, the project is said to be 100% substantially complete and the one (1) year construction warranty begins.

4.5 Final Completion. Once the punch list items are completed for a category then it is said to be in the final completion phase. Integrity Water and Energy will then complete a Certificate of Completion (Attachment E) and will notify the Customer and document the date of notification. Customer shall provide approval within ten (10) calendar days of final completion notification.

If both parties agree the punch list items are complete and satisfactory, then both parties will sign the final completion section on the Certificate of Completion. If Customer rejects the final completion, Customer must provide the specific reason(s) for the rejection. Upon rejection, provided the reason(s) for rejection are covered in this agreement, Integrity Water and Energy will complete the necessary work and submit a revised notice of final completion to be reviewed and inspected by Customer.

If Customer does not respond within ten (10) calendar days of final completion notification, the work will be considered finally complete.

4.6 Project Handover. After each category is 100% in the final completion phase and the necessary documentation as described in article 2 has been prepared, then the construction term of this project is considered complete, and the project will be handed over from Integrity Water and Energy to Customer. Integrity Water and Energy will request a Project Handover within ten (10) calendar days, at which point both parties will sign the Project Handover Form (Attachment F), and project documentation (per Article 2) will be delivered to Customer.

ARTICLE 5 – PROJECT CHANGES

5.1 Change to Project. Integrity Water and Energy shall supervise and direct the work and have exclusive control over construction means, methods, sequences, and procedures. Integrity Water and Energy can also change materials, substitute equipment, alter the scope, and otherwise make any necessary changes to this agreement providing that Customer gives written consent prior to the change. A change in the project outside of this agreement, in price, scope or schedule will be referred to as a scope adjustment and shall be signed by both Integrity Water and Energy and Customer.

5.1.1 Customer shall designate a representative who has authority to approve scope adjustments. This representative shall be knowledgeable of the project details and be available at a minimum on a weekly basis.

5.1.2 Customer may request a change in scope to Integrity Water and Energy if desired. Integrity Water and Energy has the right to reject requests outside of this agreement if the work is undesirable for Integrity Water and Energy. If the change in scope request is accepted, Integrity Water and Energy will provide pricing and the scope adjustment for the request. Both parties must sign prior to completion of the scope adjustment.

5.2 Change in Law. The parties agree that if a governmental or public authority enacts or modifies a law or tariff prior to project handover that makes completion or handover illegal, impractical, or impossible for either party, then either party can terminate this agreement as described in Article 1.

5.3 Concealed or Unknown Conditions. If conditions are encountered at the project site which are a) subsurface or otherwise concealed physical conditions which differ materially from facts or information in the contract documents or b) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist in construction and services of this type and nature, Integrity Water and Energy shall promptly notify Customer within ten (10) calendar days after the condition was made known. If such conditions cause Integrity Water and Energy an increase in cost or time, Integrity Water and Energy shall be entitled to equitable adjustment to the contract price. The equitable adjustment shall be represented and agreed to in a scope adjustment. If agreement cannot be reached within ten (10) calendar days of issuing the scope adjustment, either party can terminate this agreement as described in Article 1.

ARTICLE 6 – PRICE AND PAYMENT

6.1 Construction Price and Payment. The price for the scope of services in Attachment A is Project Investment Amount$, to be paid per the schedule listed below. This schedule may vary based on actual construction progress. A monthly project progress schedule will be discussed regularly, and invoices will be presented to Customer on the on or about the 15th of each month for approval and payment, due upon receipt. An approved invoice that is ten (10) calendar days or more past due will be deemed late and interest will be accrued on the amount at a rate of one and a half percent (1.5%) per month, or the highest legal rate allowed, whichever is lower. Customer shall pay all attorneys or collections fees for outstanding invoices. Below is the project schedule and price schedule for the project.

Payment Schedule	
4/1/22	$
5/1/22	$
[illegible]/22	$
7/1/[illegible]	$
8/1/22	$
9/1/[illegible]	$
[illegible]/22	$
11/1/[illegible]	$
12/1/22	$
1/1/23	$
2/1/23	$
3/1/23	$
4/1/23	$
Total	**$**

The schedule will be adjusted based on actual construction progress. Customer will hold 10% retainage per Payment Application form up to substantial completion. Upon substantial completion Customer will release 5% of the retainage. Upon project final completion customer will release the final 5% of retainage.

6.2 Measurement and Verification Price and Payment. The price for the scope of services in Attachment G – Measurement and Verification will be paid annually according to the below table. Fees will be billed in the 12th month of the year for services to be performed the first quarter of the following year.

Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7
Year 8
Year 9
Year 10
Year 11
Year 12
Year 13
Year 14
Year 15
Year 16
Year 17
Year 18
Year 19
Year 20

The above Measurement and Verification payment schedule is based on a 3% annual escalation and is subject to annual cost escalation beyond the above table if local Consumer Price Index is higher than the planned 3% escalation.

6.3 Tax Exemption. If Customer claims any taxes do not apply to items in this agreement, Customer must provide Integrity Water and Energy the appropriate documentation demonstrating applicable tax exemption.

ARTICLE 7 – INSURANCE, INDEMNIFICATION, LIABILITY

7.1 Insurance. Integrity Water and Energy shall carry and maintain insurance coverage in force from the effective date of the contract through final completion of the work, in the following minimum amounts.

COVERAGES	LIABILITY LIMITS
Commercial General Liability – Per Occurrence	$2,000,000
Commercial General Liability – General Aggregate	$4,000,000

Customer shall be responsible for purchasing and maintaining its own liability insurance and shall be responsible for any risk of loss related to the work listed in this agreement.

7.2 Indemnification. Integrity Water and Energy and Customer shall, to the full extent of the law, indemnify and hold each other and all respective consultants, agents, employees, and affiliates harmless from all claims, damages, demands, expenses, and suits of any kind, including reasonable attorney's fees, resulting from a breach of a material obligation under this Agreement (including but not limited to Customer's failure to timely and fully satisfy any monetary obligation arising under or relating to this Agreement), intentional misconduct or negligence of their respective employees, subcontractors, or authorized agents that harms the other party, in performance of the work listed in this Agreement.

7.3 Liability. Integrity Water and Energy's liability shall be limited to an amount equal to the amounts paid by Customer for the services under this agreement, but excluding pass-through costs, for the six (6) month period immediately preceding the month in which the event giving rise to the liability occurred. Neither Integrity Water and Energy nor Customer shall be responsible to the other for any special, indirect, remote, consequential, or punitive damages arising in any way from the services or work listed in this agreement. Neither party will be responsible to the other for damages, loss, injury, or delay caused by conditions that are beyond the reasonable control, and without the intentional misconduct or negligence, of that party.

7.4 Dispute Resolution Process.

7.4.1 Good Faith Negotiation Period. Subject to Section 7.4.3, upon written request of either Party, authorized representatives with decision-making authority will meet at agreed time(s) and location(s) for a period not to exceed 60 days to attempt in good faith to resolve the Dispute. Both of the parties shall continue performing their respective obligations under this Agreement during any Dispute.

7.4.2 Mediation. If the Parties have not resolved a Dispute under Section 7.4.1, then, on either Party's written request, the Parties will enter into non-binding mediation

administered under the Rules by one or more mediators mutually selected and appointed by the Parties or, if the Parties are unable to agree, then appointed in accordance with the Rules. The place of mediation will be Lexington, Kentucky. The language of the mediation will be English. Each Party will bear its own costs, fees, and expenses associated with any mediation, except the Parties will equally split the costs and expenses of the mediator(s).

7.4.3 Equitable Relief. Notwithstanding any provision in this Agreement to the contrary, a Party may bring an action in equity at any time for equitable relief in the jurisdiction and venue identified in Section 7.4.4.

7.4.4 Jurisdiction and Venue. If the parties fail to resolve their dispute(s) after the conclusion of the mediation described in this Section 7.4.2, then either party may file a civil action in the Kentucky state courts in Carter County Kentucky.

7.5 Force majeure. Neither party shall be held responsible for failures due to Force Majeure that are reasonably beyond control, including, but not limited to, acts of God, tornadoes, storms, acts of government, labor disputes, strikes, pandemics, thefts, vandalism, explosions, shortages of parts, materials, or labor. If Integrity Water and Energy experiences Force Majeure, written documentation of the act will be presented to Customer and equitable adjustments will be made to the invoices and schedules. If either party, due to Force Majeure, is unable to fulfill their respective obligations in this agreement, the parties may, at either's discretion, decide to a) keep the agreement in effect but suspend operations until a mutually feasible future date, or b) terminate the agreement.

IN WITNESS WHEREOF the Parties have executed this Agreement by their duly authorized officers as of the Effective Date.

Client of	**Integrity Water and Energy, LLC**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____

ATTACHMENT A – SCOPE OF WORK

A summary of the scope of work is below.

Scope of Work Summary

A.1	Water meter replacement
A.2	Zone meter installation
A.3	Leak detection and repair
A.4	AMI infrastructure installation
A.5	AMI system integration and training
A.6	Non-Revenue Water (NRW) monitoring system implementation and training

A.1 Water Meter Replacement.

A.1.1 Revenue-Generating Water Meter Installation. The following work will be performed during meter replacement:

- Removing dirt around buried meters as necessary to access the meter
- Pumping out water as necessary to access the meter
- Drilling a hole in the meter pit cover if necessary for the AMI transmitter
- Removing old meters, gaskets, and flange bolts (if flanged style)
- Installing new meters, new gaskets and new flange bolts (if flanged style)
- Visual confirmation of no leaks
- Documenting the old meter reading and new meter reading
- Providing documentation to Customer so billing information can be updated
- Storing old meters in a location designated by Customer for at least two (2) calendar months in case the old meter reading needs verified
- Documenting and coordinating with Customer as necessary to quickly resolve issues that deem service locations as "unserviceable"

A.1.2 Unserviceable Meters. Some situations may arise that require Customer to remedy. One example is if a service location is deemed "unserviceable." If a service location is deemed unserviceable, it means that the meter cannot be installed within the work described in section 1.1. Here are some examples of an unserviceable locations.

- A faulty valve prevents Integrity Water and Energy from shutting off the water to a point that the meter swap is not reasonable.
- Locations where the meter flanges or couplings are outside of the pit or incased in concrete.
- Locations that cannot be found after a reasonable amount of searching.
- Locations that cannot be reached and require that the lid, lid ring, and/or meter pit be removed or opened to facilitate access.

- Meters where the citizens or businesses prevent Integrity Water and Energy from accessing the meter after three documented attempts were made to perform the change or schedule the work.

A.1.3 Meter type and Quantity. Integrity Water and Energy will replace meters that are on 3/4" and 1" lines and are not already solid state meters with solid state meters. Meters that are on 3/4" lines and designated as "high frequency shut off" meters by Customer will be replaced with Manufacture Ally Meters that allow for remote shutoff. Meters greater than 1" will be replaced with Master Meter Octave meters. Below is a summary of meter new meters to be installed.

SAMPLE TABLE

Meter Type	Size	Billing Meters	Zone Meters	Total
iPERL meters provided by Customer installed by Integrity Water and Energy prior to contract	3/4 inch	320		320
iPERL		3,653		3,653
Ally		100		100
iPERL	1 inch	52		52
Octave	1 1/2 inch	7		7
	2 inch	76	1	77
	3 inch	8		8
	4 inch	3		3
	6 inch	1	9	10
	8 inch		3	3
	12 inch		3	3
	Total	**4,220**	**16**	**4,236**

NOTE: The 2-inch zone meter will replace the existing Rattlesnake zone meter.

Meter touch pads will be replaced as well. Where a new meter is installed and a radio transceiver does not exist, a new transceiver will be installed. Existing transceivers will not be replaced.

Integrity Water and Energy will keep up to 400 used meters and return the rest to Customer.

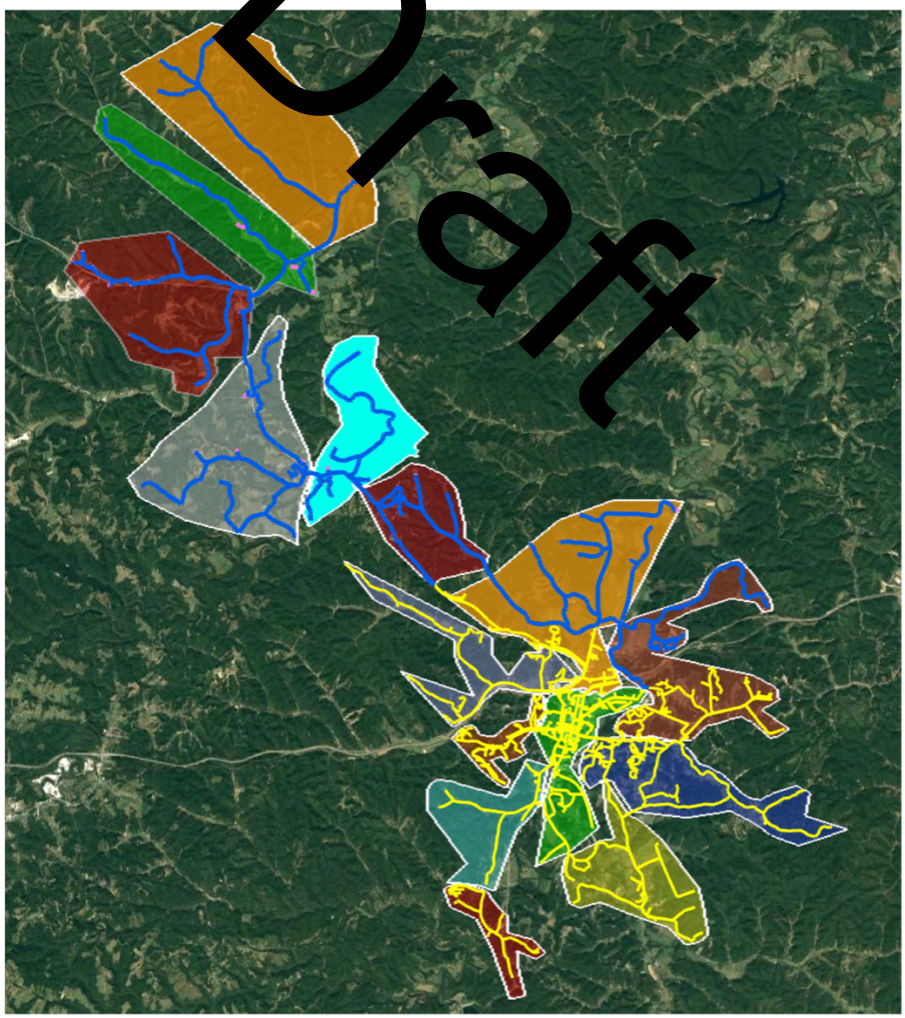
A.1.4 Meter installation coordination. Meter installation will be led by Integrity Water and Energy who will coordinate w/ Customer and the installation contractor to ensure proper communication, documentation, and confirmation.

Door hangers or flyers will be provided to citizens notifying them of a meter swap approximately one (1) week prior to the swap. On the day of the swap, the contractor will knock on the resident's door to let them know water will be shut off briefly. If the resident cannot be contacted and there is no continuous water flow, then the installation contractor will proceed with the swap.

Documentation shall include a before and after picture of the meters including the readings, new meter #'s and new radio #'s. The Survey 1,2,3 app will be used to transfer required documentation to the customer. This data will be available online for one (1) calendar year after the project and provided electronically to Customer.

Meters will be visually confirmed to have no leaks at the time of install. Integrity Water and Energy will be responsible for any leaks within a 36" diameter circle of the meter excluding piping within a structure for one (1) calendar year after substantial completion.

A.2 Zone Meter Installation. Custo[illegible]water distribution system will be split into 15 zones as shown in the picture below. S[illegible]ecific l[illegible]ations are in the table below.



Sample graphic and location

Meter #	Zone Meter Name	Line size	Line Material	Approx. Address	Description	Longitude West	Longitude North
1	Leatherwood	6	PVC	HWY 7 25999	Tie into valve # 984. South side of Hwy 7, Near road in corner of yard	83.044473	38.4694394
2	748 Three Prong	6	PVC	HWY 1773 122	Tie in to valve 1220 North side of Hwy 7, East of 1773, near the intersection in a field	83.063584	38.45846
3	AA North	6	PVC	HWY 9 9853	East side of St Hwy 9 (AA), North of Dragon Ln at the bend in the road	83.065818	38.440975
4	Tygart Creek Exit	8	PVC	HWY 7 N 7853	Tie in to valve 870 on the south side of Hwy 7 at bend in the road, near intersection with Hwy 9.	83.030089	38.407239
5	Tygart Creek	8	PVC	59 Kees Br	Tie into valve 1211 on the south side of Kees Br., at bend in the road near Hwy 9.	83.018468	38.398864
6	AA Pump Station	6	PVC	HWY 9 376	Tie into valve 877. North side of St Hwy 9 (AA) east side of the driveway of the pump station	82.995764	38.374727
7	Downtown 2	8	Ductile Iron	EVERMAN 200	Tie into valve # 1162 north of Left center KCU baseball field	82.947198	38.343695
8	1947	6	PVC	HWY 19 24	On the north side of I-64 East of truck lane.	82.94897	38.344177
9	Downtown 1	16	Ductile Iron	803 Landsdown A	the en f Landsdown Ave west f football nd Substati	82.950334	38.342551
10	Paradise Tank	6	Asbestos Cement	227 College Hill Dr	Tie into val by the Pa e Tank	82.9545653	38.3381281
11	South Zone	6	PVC	PINE RIDGE 150	North side of Ky 7 neer intersection w/ Pine Ridge Rd	82.956756	38.3205
12	Hwy 1 North	12	PVC	INTERSTATE DR 114	Behind Arby's, North of the back edge of the parking lot in the field across access road.	82.9403066	38.3428614
13	East Zone	6	PVC	1600 US 60 East	Same side of Main St just south of the baseball fields between parking lot and US 60.	82.905046	38.329578
14	East 60	12	Asbestos Cement	411 E Main St	Tie into valve 117 on the South side of E Main St. West of Meadow Vw intersection	82.940889	38.330619
15	Hitchins	6	PVC	1845 Damron Branch	South side of Damron Br in a field	82.924223	38.308455

A.2.1 Zone Meter Preparation and Installation. The following work will be performed during zone meter preparation and installation.

- Pit will be designed and stamped drawings provided to Customer at the end of the project
- Excavation of site for pit
- Installation of pit in accordance to engineered installation drawings
- Installation of new Octave meter, bypasses, valves as necessary, and test ports
- Coordinate water shutoff for system tie in with Customer
- Tie-in to existing system
- Post install verification of fire hydrant flow
- Reseed excavation site if necessary to restore grass
- Visual confirmation of no leaks
- Update documentation in ArcGIS.

A.3 Leak Detection and Repair.

A.3.1 Leak Detection and Repair Work. Integrity Water and Energy will locate, and repair leaks as described below to achieve the guaranteed quantity (66,394,388 gallons per year) of Non-Revenue Water (NRW) as defined in Attachment C – Water Leak Guarantee.

- Prep site for safe work. (i.e., plates, cones, signs, and barriers as needed)
- Ensure Osha standards pertaining to excavation and construction are followed
- Excavate leak site and pump out water as necessary
- Assess the damage and pipe condition to determine the best repair
- Coordinate water shutoff with Customer if necessary
- Repair leak utilizing the following solutions
    - Install Hymax repair clamp (or similar)
    - Replace sections of pipe up to 5’
    - Replace water meters that are leaking
    - Resolve leaking connections (For example Setters, meters, valves etc.)
- Sections of pipe greater than 5’ that need replaced will be the responsibility of the customer to replace
- Leave accessible until next day so that the repair can be visually inspected for no leaks
- Install traffic rated covers as necessary
- Backfill excavation site
- At the end of construction, Integrity Water and Energy shall test the repair sites with acoustic listening devices to confirm that there is still no leak
- If still leaking at either initial confirmation or at the end of construction Integrity Water and Energy is responsible to fix the leak
- Provide documentation for all leak repairs including picture and/or video, leak type, estimated leak size, pipe material and size, and repair method

A.3.2 Leak Detection and Repair Exclusions.

- Integrity Water and Energy is not responsible for asphalt and concrete work that might be needed after leak site excavation. Asphalt and concrete work will be coordinated by Customer
- Customer is responsible for any leaks after the savings in leak guarantee has been met and not included in the one (1) year construction warranty

A.3.3 Leak Detection Sustainability. Integrity Water and Energy will provide the following equipment to Customer to be used in conjunction with the Non-Revenue Water (NRW) tool future leak investigation by the Customer's team. Training will be provided by a factory representative to use these tools.

- Sewerin AC 200 correlator kit
- Sewerin T 200 carrying rod
- Sewerin M200 touch microphone
- Sewerin B200 ground microphone

A.4 AMI Infrastructure Installation. Integrity Water and Energy will install Manufacture FlexNet radio frequency communication network. The FlexNet system will communicate with and collect data from the smart meters. This system will also be used to remotely activate the Ally meters. The necessary infrastructure will be installed to guarantee 1-way communication of 80% the installed meters.

The table below shows the locations of transmitters and repeaters that will be installed and what type of fees apply at that location. Integrity Water and Energy will install power as needed at the locations shown in the table. Existing power sources have been verified by the property owners and Integrity Water and Energy and will be used at the locations shown in the table.

	AMI Asset	Location	Elevation
1			
2			

A.4.1 AMI Installation and Confirmation Work.

- Install transmitters and repeaters in locations shown in the table above
- Install power shown in the table

A.5 AMI system Integration and Training. Data from the new meters will be made available via the AMI system online reporting tool. AMI system logins/accounts will be provided to Customer. The system will be integrated into Customer's existing billing system.

Training will be provided to Customer personnel as needed in how to use AMI system.

A.6 Non-Revenue Water (NRW) Tool Integration and Training.

The NRW tool compares the finished water supplied to each zone with the associated billed water in each zone and will illustrate the lost water in each zone. The tool will also provide notification to Customer when the lost water is higher than the target amount. The target amount is a variable input per zone that Customer can change. The NRW tool will also have the input for the whole sale value of water and will illustrate the dollar value of the lost water by zone. The above information will be available graphic via web browsers.

ATTACHMENT B – WATER METER GUARANTEE

B.1 Guarantee. Integrity Water and Energy guarantees the accuracy of the revenue-generating water meters installed as part of this project, according to the table shown below. This guarantee will remain in effect for as long as Customer continues the annual Measurement and Verification agreement with Integrity Water and Energy. Meter accuracy will be measured annually and then combined with cumulative accuracy measurements to demonstrate performance against the cumulative guarantee. Integrity Water and Energy will illustrate new revenue due to increased billable water consumption, but the guarantee only applies to the meter accuracy as stated in this Attachment B – Water Meter Guarantee.

Year	Guaranteed Accuracy
Year 1	99.00%
Year 2	99.00%
Year 3	99.00%
Year 4	99.00%
Year 5	99.00%
Year 6	98.90%
Year 7	98.90%
Year 8	98.90%
Year 9	98.80%
Year 10	98.80%
Year 11	98.80%
Year 12	98.80%
Year 13	98.75%
Year 14	98.75%
Year 15	98.75%
Year 16	98.75%
Year 17	98.75%
Year 18	98.75%
Year 19	98.75%
Year 20	98.50%

B.1.1 Stipulations. The guarantee stated in this Attachment B is contingent on a) Customer not making any additions or alterations to work performed in this agreement without express written consent from Integrity Water and Energy, and b) Customer performing appropriate maintenance on water meters covered under this agreement. Customer shall promptly notify Integrity Water and Energy of any situation or condition that may adversely affect Integrity Water and Energy's ability to recognize the guarantee stated in this agreement. If the additions, alterations, or any other adverse effect contained in

this paragraph is reasonably outside of Integrity Water and Energy's control, Integrity Water and Energy shall be entitled to adjust the guarantee stated in this agreement.

B.2 Pre-Project System Data.

B.2.1 Baseline Water Meter Accuracy. Integrity Water and Energy and Customer partnered to generate 320 randomly sampled accounts/meters to test accuracy of existing meters. Smaller meters (5/8" – 3/4") were selected for this sample because they represent the vast majority of the system's water consumption and also represent both residential and commercial customers. These meters were tested per AWWA standards, producing a mutually agreed to existing meter weighted average inaccuracy of 5.63% that was used to calculate water meter inaccuracy in this Attachment.

Sample Table

Meter Type	Size	Billing Meters	Zone Meters	Total
iPERL meters provided by Custome installed by Integrity Water and Energy prior to contract	3/4 inch	320		320
iPERL		3,653		3,653
Ally		100		100
iPERL	1 inch	52		52
Octave	1 1/2 inch	7		7
	2 inch	7	1	77
	3 inch	8		8
	4 inch	3		3
	6 inch	1	9	10
	8 inch		3	3
	12 inch		3	3
	Total	**4,220**	**16**	**4,236**

NOTE: The 2-inch zone meter will replace the existing Rattlesnake zone meter.

B.2.2 Baseline Water Consumption. Customer provided Integrity Water and Energy three (3) years of utility data (October 2018-September 2021). Integrity Water and Energy reviewed this data and created a baseline billable consumption volume by averaging the volume of *each* account for *each* calendar month as shown in the table below.

Sample Table

Month	Water Pre-Meter Replacement Consumption (gal)	Sewer Pre-Meter Replacement Consumption (gal)
January	31,596,733	9,504,333
February	29,746,333	9,413,033
March	22,405,700	7,109,500
April	27,899,167	8,310,867
May	27,228,600	8,290,300
June	30,660,667	9,255,233
July	33,388,867	10,068,700
August	29,801,500	8,847,500
September	31,215,500	9,821,667
October	28,652,933	9,103,400
November	29,843,267	9,823,467
December	30,750,900	9,210,933
Total	**355,290,467**	**108,758,933**

B.2.3 Savings Calculations. The water meter accuracy increase was calculated based on the guaranteed accuracy of the new meters shown in B.1 and the measured baseline accuracy shown in B.2.1. The resulting increase in billable water volume was then determined using the baseline water consumption shown in B.2.2. This can then be used to illustrate the financial benefit of replacing the water meters.

After extensive engineering analysis, surveying and testing of the system, Integrity Water and Energy utilized the above data to create an industry-accepted spreadsheet calculation method to model the financial impacts of the project improvements. The calculator models the increase in accuracy of the new water meters, the respective rate structures, and rate escalations.

Example calculation: YEAR 1 CALCULATED NEW BILLABLE VOLUME =
BASELINE BILLABLE VOLUME x
[1 + (YEAR 1 VALIDATED ACCURACY – BASELINE ACCURACY)]

The below table illustrates the new total monthly billable consumption after calculating the increase per the guaranteed accuracy amount.

Sample Table

Month	Water Post-Meter Replacement Consumption (gal)	Sewer Post-Meter Replacement Consumption (gal)
January	32,897,656	10,026,740
February	30,939,512	9,929,046
March	23,363,417	7,498,992
April	29,015,532	8,768,940
May	28,326,073	8,746,736
June	31,905,487	9,763,603
July	34,723,610	10,620,664
August	31,038,778	9,332,744
September	33,483,890	10,359,073
October	29,836,601	9,603,935
November	32,061,287	10,364,079
December	31,990,326	9,716,576
Total	**369,582,168**	**114,731,127**

The financial benefit of upgrading the water meters is summarized in the table below.

Sample Table

Month	Water Pre-Meter Replacement Consumption (gal)	Water Post-Meter Replacement Consumption (gal)	Post-Meter Replacement Increased Metered Consumption (gal)	Post-Meter Replacement Additional Revenue
January	31,596,733	32,897,656	1,300,923	$9,979
February	29,746,333	30,939,512	1,193,179	$9,123
March	22,405,700	23,363,417	957,717	$7,138
April	27,899,167	29,015,532	1,116,365	$8,591
May	27,228,600	28,326,073	1,097,473	$8,598
June	30,660,667	31,905,487	1,244,820	$9,565
July	33,388,867	34,723,610	1,334,743	$10,273
August	29,801,500	31,038,778	1,237,278	$9,503
September	32,215,500	33,483,890	1,268,390	$9,729
October	28,652,933	29,836,601	1,183,668	$9,028
November	30,843,267	32,061,287	1,218,020	$9,284
December	30,750,900	31,990,326	1,239,426	$9,487
Total	**355,190,167**	**369,582,168**	**14,392,002**	**$110,298**

Sample Table

Month	Sewer Pre-Meter Replacement Consumption (gal)	Sewer Post-Meter Replacement Consumption (gal)	Post-Meter Replacement Increased Metered Consumption (gal)	Post-Meter Replacement Additional Revenue
January	9,504,333	10,026,740	522,407	$5,913
February	9,413,033	9,929,046	516,013	$5,807
March	7,109,500	7,498,992	389,492	$4,352
April	8,310,867	8,768,940	458,073	$5,162
May	8,290,300	8,746,736	456,436	$5,102
June	9,255,233	9,763,603	508,369	$5,707
July	10,068,700	10,620,664	551,964	$6,193
August	8,847,500	9,332,744	485,244	$5,433
September	9,821,667	10,359,073	537,407	$6,017
October	9,103,400	9,603,935	500,535	$5,594
November	9,823,467	10,364,079	540,612	$6,040
December	9,210,933	9,716,576	505,642	$5,660
Total	**108,758,933**	**114,731,127**	**5,972,194**	**$66,983**

The table below illustrates the benefit over the term of the project inclusive of the 1% annual rate increase. Year zero represents the construction period when only a portion of the financial benefit will be realized as the system is installed.

Year	Increased Revenue
Year 0	
Year 1	
Year 2	
Year 3	
Year 4	
Year 5	
Year 6	
Year 7	
Year 8	
Year 9	
Year 10	
Year 11	
Year 12	
Year 13	
Year 14	
Year 15	
Year 16	
Year 17	
Year 18	
Year 19	
Year 20	
Total	

ATTACHMENT C – LEAK GUARANTEE

C.1 Guarantee. Attachment C establishes the basis of the guarantee and documentation of the Non-Revenue Water (NRW) reduction in the project. As of DATE the NRW for Customer is 45% per data provided by Customer. Integrity Water and Energy will execute leak detection, repair, or other required solutions to reduce NRW by 66,394,388 gallons annually. Integrity Water and Energy is guaranteeing this NRW reduction in gallons, which can also be illustrated to be worth $170,136 in year one of the contract.

C.2 Measuring Water Volume. When a leak is found, the water lost will be estimated via the Kentucky Rural Water Associate leak detection calculation sheet. After a leak is repaired the site will be temporarily covered, and the leak will be revisited in approximately a week to verify that the leak has been repaired.

C.3 Water Cost. Customer and Integrity Water and Energy have mutually agreed that the wholesale rate of potable water to be used for this project is $2.50/Kgal. The 66,394,388 gallons saved in leak reduction correlates to a savings of $170,136 dollars in year one of the contract. Year zero represents the construction period where only half of the leak benefit will be realized due to construction. The Customer and Integrity Water have mutual agreed to use 2.5% annual inflation for cost and will be applied to the year two leak value.

C.4 Shared Goals. As leak reducing is a shared goal between Customer and Integrity Water and Energy, any leaks found and resolved during the project's construction phase (or during the development and construction phases) will be recorded and added to the value of the leak guarantee, including leaks resolved by the Utility or other work.

C.5 Ongoing Ownership. At the end of the one (1) year warranty period, Customer will be responsible for maintaining the leak repairs, and Customer also has the responsibility for continuing to reduce NRW.

ATTACHMENT D – NOTICE TO PROCEED

TO: Integrity Water and Energy
380 Missouri Ave.
Jeffersonville, KY 47013

FROM: Client

DATE: _____

SUBJECT: Notice to Proceed with Guaranteed Energy Savings Contract

Pursuant to the Guaranteed Energy Savings Contract, awarded on _____[date] to Integrity Water and Energy, 380 Missouri Ave., Jeffersonville, IN, you are hereby notified to commence work set forth in the contract within 30 days after receiving this notice. All work is to be done in accordance with the plans, timing, specifications and conditions provided in the contract. Attached is evidence that the full project funding has been acquired is available.

_____[name] has been appointed Customer Representative and is duly authorized to administer your contract for and in the name of the Client. In case of inability to act in this capacity at any time,

_____[name] has been designated as an alternate.

Please acknowledge receipt of this Notice by signing both copies in the space provided below. Keep one copy and return the other copy to the address listed above.

Please advise if there are any questions.

Sincerely,

_____
Client
Title

Acceptance of Notice
I acknowledge receipt of this Notice on _____[date].

_____
Brandon Marcum
Account Executive, Integrity Water and Energy

ATTACHMENT E – CERTIFICATE OF COMPLETION

PROJECT Name	Client Non-Revenue Water (NRW) Reduction
PROJECT LOCATION	, Kentucky
PROJECT NAME	Guaranteed Energy Savings Contract
CUSTOMER REPRESENTATIVE	Client
INTEGRITY WATER AND ENERGY	Justin Prather
PROJECT SCOPE DESCRIPTION (Check boxes that apply to Project scope description)	☐ Zone Meter Install ☐ >1" Billable meters ☐ </= 1" Billable meters ☐ AMI ☐ Sensus Analytics ☐ NRW Tool ☐ Leak Detection ☐ Leak Repair ☐ Other _____

Project scope description is the scope of the project that is substantially or finally complete per this document.

SUBSTANTIAL COMPLETION: Notification date: _____. Substantial completion of the project scope description means installation, construction, or a service is substantially complete with only minor work remaining and is functioning properly. A list of items to be completed or corrected, prepared by Integrity Water and Energy and verified and amended by the Customer Representative is attached hereto. The failure to include any items on such list does not alter the responsibility of Integrity Water and Energy to complete all work in accordance with the contract documents.

The work performed under this contract has been reviewed and found to be substantially complete. The date of substantial completion is the date accepted by the Customer Representative as indicated below.

INTEGRITY WATER AND ENERGY: _____ DATE:_____

CUSTOMER REPRESENTATIVE: _____ DATE:_____

FINAL COMPLETION: Notification date: _____. Final completion of the project scope description means the punch list identified at substantial completion are complete and satisfactory and no other punch list items remain. The work performed under this contract has been reviewed and found to be complete. The date of final completion of the project is the date accepted by the Customer Representative as indicated below.

INTEGRITY WATER AND ENERGY: _____ DATE:_____

CUSTOMER REPRESENTATIVE: _____ DATE:_____

ATTACHMENT F – PROJECT HANDOVER DOCUMENTATION

Integrity Water and Energy

380 Missouri Ave.
Jeffersonville IN, 47130

I am writing with respect to Guaranteed Energy Savings Project for Client to confirm the Handover Date of all construction work, equipment, training, and documentation effective [Insert date] as discussed. This letter will serve as our confirmation that:

- All of the work per the contract scope of work has been delivered, and Integrity Water and Energy has complied with all of the terms in the agreement
- The work has been examined and reviewed by the undersigned
- The work was found to be completed to the satisfaction of the undersigned
- Integrity Water and Energy is hereby authorized to invoice for the final project payment

Please review, and if you agree with the content, please sign and date two copies in the space provided. Keep one copy and return the other to Justin Prather, at the above address.

- Operating manuals
- Engineering drawings
- Quality confirmation information
- List of material and equipment installed and location sites
- Overall project report

We are pleased to hand over this Guaranteed Energy Savings Project to Client and appreciate the on-going support and assistance from you and your staff. Should you have any questions with respect to the above, please contact Justin Prather at 812-646-5588.

_____ _____
Customer Representative Date

_____ _____
Justin Prather Date
Integrity Water and Energy

ATTACHMENT G – MEASUREMENT AND VERIFICATION

G.1 The Agreement. This agreement is for the Measurement and Verification services required for the extension of the guarantee as defined in Attachment B – Water Meter Guarantee. Integrity Water and Energy's ability to perform the services contained in this document are subject to Force Majeure. Integrity Water and Energy may reasonably adjust the date/timing of Measurement and Verification services.

G.2 Term. The Measurement and Verification phase commences upon project final completion and continues for as long as Client elects to pay for the M&V service annually or up to twenty (20) calendar years after project final completion.

G.3 Scope. Annually following final completion of the original project, meters will be tested per AWWA standards. The meter quantities that will be tested are shown in the table below. Integrity Water and Energy reserves the right at any time to increase the sample size at Integrity Water and Energy's cost and discretion. Only revenue-generating consumption meters (not zone meters) are part of the ongoing testing and accuracy guarantee.

Sample

Testing Meter Quantities	
3/4 inch	44
1 inch	1
1 1/2 inch	1
2 inch	1
3 inch	1
4 inch	1
6 inch	1

G.4 Process. This test will be performed in the first quarter of each year with the exception of year one where the test will be performed by the end of 2023. The scope of services will be implemented as follows:

- Integrity Water and Energy will provide thirty (30) prior calendar days' notice to Customer
- Customer will ensure the annual meter sample accurately represents the overall system. It is also recommended to select sample meters that have not been tested in previous annual samples
- For meters 2 inches or larger, Integrity Water and Energy will test all identified meters in place
    - Customer will provide Integrity Water and Energy access to identified meters
    - Integrity Water and Energy will supply testing equipment and conduct testing
- For meters less than 2 inches:

    - Customer will pull all identified meters and have meters ready for Integrity Water and Energy to pick up at an agreed upon location
    - Customer will supply replacement meters during testing
    - Integrity Water and Energy will pick up the test meters and have them tested by a testing facility
- Prior to testing the meters, if Integrity Water and Energy and Customer determine the selected meters are inaccurate or damaged for reasons other than normal wear and tear, alternate meters will be pulled for testing. Customer is responsible for repair or replacement of inaccurate or damaged meters due to abnormal conditions or use, such as, but not limited to, rocks, debris, or physical damage
- After testing is complete, Integrity Water and Energy will deliver or ship the test meters to Customer to an agreed upon location

G.5 Annual Reporting. After the annual test Integrity Water and Energy will document how the tested meters perform compared to the guarantee. Performance variation will be recalculated and illustrated in the cumulative guarantee documentation to be provided to Customer.

If the measured sample accuracy is greater than the guaranteed accuracy, the overage will be tracked and may be applied in future years to cover any subsequent shortfalls.

If the measured sample accuracy is less than the guaranteed accuracy, the below resolutions can be implemented at Integrity Water and Energy's discretion:

- If the project's cumulative financial benefit is not positive, no remedial action will be required; the cumulative financial benefit will be updated/reduced to reflect the current year's accuracy deficit
- Integrity Water and Energy will determine root cause(s) of meters not meeting the guarantee, and implement applicable solution(s) in order to meet the guarantee
    - If Integrity Water and Energy also wishes to test additional meters, Integrity Water and Energy will pay the cost of pulling and testing the additional meters, and Customer will supply replacement meters during testing
- Integrity Water and Energy may provide a financial payment for the calculated financial benefit based on the net accuracy deficit (guaranteed accuracy minus actual measured accuracy)

G.6 Termination by Customer. This Measurement and Verification agreement may be terminated at any point by Customer by providing at least thirty (30) calendar days written notice to Integrity Water and Energy's home office, at the address listed in this agreement. Upon termination, Integrity Water and Energy shall have no further obligations to Customer on or after the termination date, and any and all future guarantees are null and void.

G.7 Termination by Integrity Water and Energy. If Customer defaults on their responsibilities in this Attachment G – Measurement and Verification, Integrity Water and Energy may provide written notice to Customer of Integrity Water and Energy's intention to terminate the agreement if the default is not remedied. If Customer fails to remedy the default within thirty (30) calendar days, Integrity Water and Energy may terminate this agreement in part or in whole, by providing written notice to Customer. Upon termination, Customer shall be liable to Integrity Water and Energy for any unpaid invoices for work already performed, and any costs and damages directly resulting from the termination.

APPLICATION EXHIBIT 7

Page 1	NOTIFICATION OF INTENT TO FINANCE AND APPLICATION OF DEBT APPROVAL Form # SLDO-1 Revised 1/1/2011	For DLG staff use only: File # _____ Received _____

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

√ Type of debt to be issued (must check one):	**SLDO Approval Required**	**Complete Sections**
☐ Short Term Borrowing – KRS 65.7701 et. seq.	No	A, B, C
☐ Lease from $200,000 - $500,000 – KRS 65.940 et. seq.	No	A, B, D
☒ Lease exceeding $500,000 – KRS 65.940 et. seq.	Yes (Counties only)	A, B, D
☐ General Obligation Bond – KRS Chapter 66	Yes (Counties only)	A, B, E
☐ Public Project Rev. Bond – KRS Chapter 58	No	A, B, E
☐ Public Project Rev. Bonds w/Lease - KRS 665.310(2)	Yes (Counties only)	A, B, D, E
☐ Industrial Revenue Bond – KRS Chapter 103	Yes (All Borrowers)	A, B, E
☐ Other Bonds (True Revenue, Utility Assessment, TIF)	No	A, B, E

Section A – Borrower Information

Agency Name: Big Sandy Water District	
Governing Body: Board of Commissioners	
Street Address: 18211 KY-3	
PO Box: Not applicable	City: Catlettsburg
County: Boyd	Zip: 41129
Authorized Official: Chair and Bond Counsel	

Section B – Terms of Financial Obligation

Please provide all relevant information. Fields in bold are mandatory. Maturity Date(s): See attached schedule	Date of Issue: [To be determined] Payment Schedule: See attached schedule
Term: Approximately 20 Years	Number of Renewal Periods: N/A
Interest Rate(s): [3.100% - 4.250%]	Type of Interest (fixed or variable): Fixed
Retirement Method: Water System Revenues	
Lender's Name: Kentucky Bond Corporation	
Lender's Address: 100 East Vine Street, Suite 800, Lexington, Kentucky 40507-3700	
Right of Termination: Not Applicable	
Termination Penalties: Not Applicable	
Prepayment Provisions: The project is subject to optional purchase under the Lease on any date on and after February 1, 20[__].	
Trustee or Paying Agent: The Bank of New York Mellon Trust Company, N.A., as Trustee	
AOC Funding Percentage: Not applicable	

Section C – Note (Loan) Information/Documentation

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

Pledge of Taxes/Description:

Pledge of Revenue/Description:

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

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

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

Required Attachments

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

Section D – Lease Information/Documentation

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

The acquisition and installation of new water meters for the District's municipal water system.

Type of Lease: ☐ General Obligation ☒ Revenue

Is Lease Annually Renewable? ☐ Yes ☒ No

Does Agency seek approval without a hearing? ☒ Yes ☐ No Jurisdiction: ☒ Revenue* ☐ Refunding

If yes, please state the name, date and principal amount of original issue(s) being refunded: Not Applicable

Required Attachments (If lease requires SLDO approval)

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

* A hearing is not required for the lease in accordance with KRS 65.117.

Section E – Bond Information/Documentation

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

Describe the purpose of the bond: The proceeds of the Series 2022A Bonds will be used to redeem in advance of maturity the District's outstanding Water System Refunding Revenue Bonds, Series 2010A, having been issued by the District on July 28, 2010, in the original aggregate principal amount of $5,625,000 and to pay costs of issuance of the Series 2022A Bonds

Bond Counsel: Dinsmore & Shohl LLP
Counsel Address: 101 South Fifth Street, Suite 2500, Louisville, Kentucky 40202
Financial Advisor: RSA Advisors LLC
Advisor Address: 147 East Third Street, Lexington, Kentucky 40508
Bond Series: Kentucky Bond Development Corporation Financing Program Revenue Bonds, Series [2023B]
Call Date: The Bonds are subject to optional redemption on any date on and after February 1, 20[__]
Does this bond refund a prior bond? ☐ Yes ☒ No
If yes, please state the name, date and principal amount of original issue(s) being refunded: Not Applicable

Required Attachments (If SLDO Approval is Required)

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

Additional Required Attachments for KRS Chapter 103 Bonds

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

******

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

Name (please print): Mark S. Franklin	Date: [Signature Date]
Title: Bond Counsel/Attorney	Signature:

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

Fax to: 502-573-3712

EXHIBIT A

Debt Service Schedule

(See attachment)

Kentucky Bond Corporation

Financing Program Revenue Bonds

Estimated - Big Sandy Water - 20 Year

Net Debt Service

Date	Principal	Coupon	Interest	Total P+I	Expenses	Net New D/S
06/30/2024*	90,000.00	3.200%	82,205.67	172,205.67	5,976.12	178,181.79
06/30/2025	90,000.00	3.150%	148,110.00	238,110.00	10,375.00	248,485.00
06/30/2026	100,000.00	3.100%	145,275.00	245,275.00	10,150.00	255,425.00
06/30/2027	110,000.00	3.100%	142,175.00	252,175.00	9,900.00	262,075.00
06/30/2028	120,000.00	3.100%	138,765.00	258,765.00	9,625.00	268,390.00
06/30/2029	130,000.00	3.100%	135,045.00	265,045.00	9,325.00	274,370.00
06/30/2030	145,000.00	3.100%	131,015.00	276,015.00	9,000.00	285,015.00
06/30/2031	155,000.00	3.150%	126,520.00	281,520.00	8,637.50	290,157.50
06/30/2032	170,000.00	3.200%	121,637.50	291,637.50	8,250.00	299,887.50
06/30/2033	180,000.00	3.300%	116,197.50	296,197.50	7,825.00	304,022.50
06/30/2034	195,000.00	3.450%	110,257.50	305,257.50	7,375.00	312,632.50
06/30/2035	210,000.00	3.600%	103,530.00	313,530.00	6,887.50	320,417.50
06/30/2036	225,000.00	3.750%	95,970.00	320,970.00	6,362.50	327,332.50
06/30/2037	245,000.00	3.850%	87,532.50	332,532.50	5,800.00	338,332.50
06/30/2038	260,000.00	3.950%	78,100.00	338,100.00	5,187.50	343,287.50
06/30/2039	280,000.00	4.000%	67,830.00	347,830.00	4,537.50	352,367.50
06/30/2040	305,000.00	4.100%	56,630.00	361,630.00	3,837.50	365,467.50
06/30/2041	325,000.00	4.150%	44,125.00	369,125.00	3,075.00	372,200.00
06/30/2042	350,000.00	4.200%	30,637.50	380,637.50	2,262.50	382,900.00
06/30/2043	375,000.00	4.250%	15,937.50	390,937.50	1,387.50	392,325.00
Total	**$4,060,000.00**	**-**	**$1,977,495.67**	**$6,037,495.67**	**$135,776.12**	**$6,173,271.79**

* Note - Debt service dates are shown on a fiscal year basis (June 30) rather than each February 1, which is the expected date of each annual principal payment. Interest will be payable each February 1 and August 1.

RSA Advisors, LLC

APPLICATION EXHIBIT 8

Big Sandy Water District
Financial Exhibit
As of December 31, 2022

Big Sandy Water District's gross annual revenues for 2022 were less than $5,000,000. Pursuant to 807 KAR 5:001 § 12(1)(b), this Exhibit covers the twelve (12) month period contained in the utility's 2022 annual report (as amended) on file with the Commission, which is the most recent annual report on file with the Commission. No material changes have occurred since the end of the 12 month period, except as set forth in Paragraph G of this Exhibit.

Big Sandy Water District ("Big Sandy District") states that:

A. No amounts or kinds of stock have been authorized.

B. No amounts or kinds of stock have been issued, and none are outstanding.

C. No amounts or kinds of preferred stock have been authorized, and none are outstanding.

D. There are not mortgages on the property of Big Sandy District.

E. Big Sandy District does have outstanding bonds, the information for which is contained in the 2022 Annual Report (as amended) on file with the Commission. The outstanding bonds consist of those approved by the Commission in Case Nos. 2013-00400 and 2019-00275.

F. Big Sandy District does have outstanding notes, the information for which is contained in the 2022 Annual Report (as amended) on file with the Commission. The outstanding notes consist of those approved by the Commission in Case Nos. 2007-00014 and 2019-00276.

G. Big Sandy District has no other indebtedness, other than that which is disclosed in Big Sandy District's 2022 Annual Report (as amended) on file with the Commission, except for an automobile loan entered into in January 2023 to finance the purchase of a 2022 Chevrolet Colorado, in the amount of $36,809.00, payable over a period that does not exceed (2) years at an interest rate of 9.44%. This loan is secured by the automobile.

H. Dividends paid: None. Big Sandy District is a non-stock entity, has not paid any dividend.

I. An Income Statement for Big Sandy District for the 12-month period ending December 31, 2022 and a Balance Sheet for Big Sandy District as of December 31, 2022 are provided on the following pages.

Current Year: 2022
Comparative Year: 2021
Period: December
Period Begin: 12/01/22
Period End: 12/31/22

Big Sandy Water District

Income Statement

Account	Title	Current Period	Comparative Period	% Variance	Current YTD Balance	Comparative YTD Balance	% Variance
OPERATING REVENUES							
00461-0001	Metered Sales to Residential	$162,366.74	$192,079.66	-15	2,272,120.75	2,274,804.40	0
00461-0002	Metered Sales to Commercial	$3,777.29	$4,185.60	-10	47,105.51	52,720.98	-11
00461-0003	Metered Sales to Industrial	$11,840.95	$13,722.58	-14	161,491.68	197,425.16	-18
00461-0005	Metered Sales to Schools-Churches-Other	$3,920.72	$4,831.50	-19	46,987.18	53,761.82	-13
00470-0000	Forfeited Discounts	$5,511.61	$4,625.70	19	49,086.36	53,648.74	-9
00474-0000	Other Water Rev	$89.92	$202.08	-56	2,468.37	1,315.91	88
00474-0001	Meter Testing Rev	$0.00	$0.00	N/A	80.00	115.00	-30
00474-0002	Misc-Materials & Supplies Rev	$1,017.62	$0.00	N/A	19,688.18	2,704.05	628
00474-0003	Unmetered Water Rev	$63.84	$0.00	N/A	1,328.78	377.49	252
00474-0004	Overtime Hours Rev	$0.00	$50.00	-100	265.00	250.00	6
00474-0005	Field Collection Rev	$76.00	$0.00	N/A	271.00	15.00	> 999
00474-0008	Connect Fee	$667.00	$390.00	71	5,820.00	5,205.00	12
00474-0009	Reconnect Fee Rev	$703.00	$1,155.00	-39	9,240.00	13,052.21	-29
00474-0011	Service Call After Hours Rev	($65.00)	$50.00	-230	980.04	1,100.00	-11
00474-0012	Service Call Investigation Rev	$456.00	$435.00	5	5,401.00	6,345.00	-15
00474-0013	Inspection Fee Rev	$0.00	$25.00	-100	713.00	675.00	6
00474-0014	Meter Repairs	$30.00	$59.13	-49	1,310.38	986.98	33
00474-0018	Surcharge	$31,522.20	$0.00	N/A	63,070.08	0.00	N/A
	Total Operating Revenues	$221,977.89	$221,811.25	0	2,687,427.31	2,664,502.74	1
OPERATING EXPENSES							
00636-0007	Contractual Services- Nexbillpay	$0.00	$0.00	N/A	399.99	399.99	0
00403-0000	Depreciation Expense	$474,401.00	$485,651.00	-2	474,401.00	485,651.00	-2
00601-0001	Operation Wages	$24,423.46	$24,906.69	-2	311,278.62	317,038.87	-2
00601-0002	Office Wages	$9,527.21	$9,371.02	2	116,361.17	114,043.97	2
00603-0000	Salaries and Wages- Officer and Director	$2,500.00	$2,500.00	0	30,000.00	30,000.00	0
00603-0001	Commissioners Expense	$68.12	$0.00	N/A	68.12	142.28	-52
00408-0012	Payroll Taxes	$3,511.65	$3,248.45	8	33,739.71	38,001.55	-11
00604-0000	Medical Insurance	$10,100.11	$7,841.65	29	115,916.31	94,104.58	23
00604-0001	Dental Insurance	$326.82	$662.35	-51	3,977.56	4,509.60	-12
00604-0002	Life Insurance	$166.75	$166.75	0	1,815.25	1,932.50	-6

Account	Title	Current Period	Comparative Period	% Variance	Current YTD Balance	Comparative YTD Balance	% Variance
00604-0003	Retirement	($8,202.71)	$9,969.33	-182	87,166.33	107,320.66	-19
00610-0000	Purchased Water	$55,942.46	$94,755.98	-41	1,007,569.51	1,064,957.78	-5
00615-0000	Purchased Power/ Operations	$10,122.42	$11,321.86	-11	113,655.31	108,342.01	5
00620-0000	Materials and Supplies/ Oper	$0.00	$5,119.56	-100	2,358.97	21,351.02	-89
00620-0001	Materials and Supplies/ Maint	$1,448.77	($51,584.00)	-103	57,063.43	75,549.79	-24
00620-0002	Materials and Supplies/ Ad & G	$348.57	($2,888.46)	-112	6,190.87	4,940.64	25
00631-0000	Contractual Services- Engineering	$0.00	$0.00	N/A	0.00	34,817.42	-100
00632-0000	Contractual Services- Accounting	$0.00	$0.00	N/A	6,775.00	8,550.00	-21
00633-0000	Contractual Services-Legal	$3,000.00	$1,492.00	101	39,926.87	9,047.20	341
00635-0000	Contractual Services- Water Testing	$219.37	$319.75	-31	7,269.99	6,255.00	16
00636-0000	Contractual Services- Other	$3,552.43	$1,320.28	169	48,356.77	37,687.15	28
00636-0001	Contractual Services- Telemetry	$0.00	$370.99	-100	370.99	370.99	0
00636-0003	Contractual Services- Beep, Radio, Pager	$125.00	$125.00	0	1,500.00	1,500.00	0
00636-0004	Contractual Ser-Maintenance	$0.00	$0.00	N/A	1,915.00	0.00	N/A
00636-0005	Contractual Service-OD	$0.00	$0.00	N/A	0.00	833.33	-100
00636-0006	Contractual Service-Neil Group	$0.00	$18.00	-100	0.00	216.00	-100
00642-0000	Rental of Equipment	$623.85	$0.00	N/A	8,447.26	6,781.12	25
00650-0001	Transportation Expenses/ Maint	$4,428.67	$5,611.25	-21	46,949.77	38,199.27	23
00653-0000	Backhoe & Kubota Expense	$0.00	$0.00	N/A	24.95	2,595.72	-99
00654-0000	Vehicle Repair Expense	$4,586.23	$3,520.99	30	20,647.06	17,990.77	15
00657-0000	Insurance- General Liability	($1,469.00)	$0.00	N/A	24,962.97	24,477.05	2
00658-0000	Insurance -Workers Compensation	$0.00	$0.00	N/A	10,911.86	8,747.81	25
00659-0000	Insurance -Other	$407.20	$0.00	N/A	610.80	203.60	200
00660-0000	Advertising Expense	$0.00	$0.00	N/A	1,903.40	0.00	N/A
00661-0000	Postage Mailing Bills	$1,600.00	$1,400.00	14	17,400.00	17,195.00	1
00661-0001	Postage	$430.97	$378.80	14	7,247.97	3,397.96	113
00661-0002	Postage Permit Renewal	$0.00	$0.00	N/A	265.00	245.00	8
00670-0000	Bad Debt Exp	$17,598.58	$34,356.24	-49	15,033.09	32,083.15	-53
00671-0000	Misc/Expense/Suspense	$0.00	$0.00	N/A	0.00	973.75	-100
00675-0000	Misc Exp- Oper	$285.00	$2.95	> 999	287.95	1,012.79	-72
00675-0001	Misc Exp- Main	$81.35	$0.00	N/A	231.35	202.71	14
00675-0002	Misc Exp/ Ad & G	$183.49	$549.50	-67	9,546.22	11,236.64	-15
00675-0003	Telephones	$664.56	$671.84	-1	8,258.86	8,279.27	0
00105-0016	Construction in Progress-River Xing 2021	($373,310.00)	$43,602.55	-956	(0.42)	60,092.14	-100
	Total Operating Expenses	$247,692.33	$694,782.32	-64	2,640,804.86	2,801,277.08	-6
	Operating Income	($25,714.44)	($472,971.07)	-95	46,622.45	(136,774.34)	-134

Account	Title	Current Period	Comparative Period	% Variance	Current YTD Balance	Comparative YTD Balance	% Variance
OTHER OPERATING INCOME							
	Total Utility Operating Income	($25,714.44)	($472,971.07)	-95	46,622.45	(136,774.34)	-134
			Other Income				
00460-0002	Water Tap Fee Revenue	($96.44)	($835.00)	-88	39,736.74	48,020.83	-17
00419-0001	TSB-Interest Bond & Sinking Fund	$9.85	$3.54	178	21.43	16.65	29
00419-0002	Town Square Bank- Rev Acc Int	$17.00	$5.60	204	78.44	62.46	26
00419-0003	Town Square Bank- Dep Acc Int	$12.14	$2.48	390	62.98	30.22	108
00419-0004	Town Square Bank- CD Int	$0.00	$0.00	N/A	107.45	113.23	-5
00419-0005	Town Square Bank-Depreciation Acct	$3.38	$1.97	72	10.26	4.60	123
00421-0005	Insurance Money	$205.68	$0.00	N/A	822.72	0.00	N/A
00421-0015	KIA Grant for River Xing	$0.00	$0.00	N/A	368,587.00	0.00	N/A
00414-0001	Gains (Losses) on sale of capital assets	$9,000.00	$0.00	N/A	9,000.00	0.00	N/A
	Total Other Income	$9,151.61	($821.41)	< -999	418,427.02	48,247.99	767
			Other Deduction				
00427-0001	Interest/USDA-91-07	$0.00	$0.00	N/A	0.00	77,609.62	-100
00427-0003	Interest on Long-Term Debt	$116,137.00	($0.25)	< -999	131,219.50	14,341.60	815
00427-0004	Interest on Customer Deposits	$2.20	$2.70	-19	63.19	730.02	-91
00427-0010	Interest/RD-91-16	($12,953.00)	$14,805.62	-187	1,580.74	31,598.74	-95
	Net Profit/Loss	($119,749.03)	($488,600.55)	-75	332,186.04	(212,806.33)	-256

Big Sandy Water District
Balance Sheet

Fiscal Year: 2022
Comparative Year: 2021
IncludeThru: December

Account		2022 Beginning Balance	Previous Period Balance	2022 YTD 12/31/22	2021 YTD 12/31	Difference
			Assets & Other Debits			
Property, Plant & Equipment						
00105-0016	Construction in Progress-River Xing 2021	60,092.14	373,309.58	(0.42)	60,092.14	(60,092.56)
00105-0018	Construction in Progress- Meter Building	0.00	10,995.00	10,995.00	0.00	10,995.00
00108-0000	Accu Depr/Util Plt in Service	10,339,756.70	10,339,756.70	10,776,257.70	10,339,756.70	436,501.00
00303-0000	Land and Land Rights	99,529.17	99,529.17	99,529.17	99,529.17	0.00
00304-0000	Structures and Improvements	64,512.35	64,512.35	64,512.35	64,512.35	0.00
00304-0002	Office Building	630,101.14	630,101.14	630,101.14	630,101.14	0.00
00311-0000	Pumping Equipment	322,927.93	343,519.89	349,338.67	322,927.93	26,410.74
00330-0000	Distribution Reservoirs and Standpipes	1,223,301.54	1,223,301.54	1,223,301.54	1,223,301.54	0.00
00331-0000	Transmission and Distribution Mains	13,514,730.95	13,519,415.95	13,913,879.95	13,514,730.95	399,149.00
00333-0000	Service Pipes	5,101,923.52	5,110,519.06	5,113,963.39	5,101,923.52	12,039.87
00334-0000	Meters and Meter Installations	1,484,202.85	1,574,224.49	1,580,389.04	1,484,202.85	96,186.19
00335-0000	Hydrants	227,401.80	227,401.80	227,401.80	227,401.80	0.00
00340-0000	Office Furniture	36,079.02	36,079.02	36,079.02	36,079.02	0.00
00340-0001	Office Equipment- Computer	90,687.45	93,897.45	93,897.45	90,687.45	3,210.00
00341-0000	Transportation Equipment	235,287.80	251,017.80	307,709.80	235,287.80	72,422.00
00343-0000	Tools, Shop, and Garage Equipment	46,120.96	46,120.96	46,120.96	46,120.96	0.00
00345-0000	Backhoe & Kubota Equipment	207,408.51	207,408.51	207,408.51	207,408.51	0.00
00346-0000	Communication Equipment	6,013.84	6,013.84	6,013.84	6,013.84	0.00
00347-0000	Misc Equipment	18,683.78	18,683.78	18,683.78	18,683.78	0.00
00348-0000	Telemetry Equipment	204,824.71	213,594.71	213,594.71	204,824.71	8,770.00
00349-0000	Digital Mapping	14,582.78	14,582.78	14,582.78	14,582.78	0.00
00350-0001	Utility Plant Acquisition Adjustment	24,805.00	24,805.00	24,805.00	24,805.00	0.00
	Total PP&E	13,273,460.54	13,749,277.12	13,406,049.78	13,273,460.54	132,589.24
Other Property and Investments						

Account		2022 Beginning Balance	Previous Period Balance	2022 YTD 12/31/22	2021 YTD 12/31	Difference
	Total Other Investments	0.00	0.00	0.00	0.00	0.00
			Current & Accured Investments			
00131-0003	City National Bank Deposit	58,551.65	58,220.33	57,730.27	58,551.65	(821.38)
00131-0005	1st National Bank Grayson/Customer Pay	7,982.05	3,721.92	3,788.72	7,982.05	(4,193.33)
00131-0007	City National Bank Revenue	104,893.53	95,373.80	82,236.11	104,893.53	(22,657.42)
00131-0010	CNB BSWD-Interest Bond & Sinking Fund	12,142.80	36,807.61	78,492.81	12,142.80	66,350.01
00131-0011	CNB BSWD-Depreciation	29,340.93	29,347.81	29,351.19	29,340.93	10.26
00131-0012	CNB/Customer Payments	4,670.99	5,842.28	594.37	4,670.99	(4,076.62)
00131-0013	CNB Debit/Credit Payments	37,805.52	48,873.11	24,498.24	37,805.52	(13,307.28)
00131-0014	City National Bank O & M	33,285.00	27,425.26	27,427.86	33,285.00	(5,857.14)
00131-0015	Surcharge Account	0.00	24,042.16	52,204.32	0.00	52,204.32
00131-0094	City National Bank Construction	11,034.40	6.83	6.83	11,034.40	(11,027.57)
00132-0000	CD-City National Bank	107,406.64	107,514.09	107,514.09	107,406.64	107.45
00133-0004	2007A Escrow Funds	4,831.47	62,956.47	4,889.97	4,831.47	58.50
00133-0005	2013C Escrow Funds	79,896.06	259,871.23	68,962.38	79,896.06	(10,933.68)
00133-0007	2019 Escrow Funds	137,547.08	185,169.44	161,367.44	137,547.08	23,820.36
00141-0000	Customer Accounts Receivable	311,884.66	323,648.35	275,993.33	311,884.66	(35,891.33)
00143-0001	Allowance for doubtful accounts	10,747.00	10,747.00	2,998.00	10,747.00	(7,749.00)
00151-0000	Plant Materials and Supplies	64,324.91	64,324.91	64,324.91	64,324.91	0.00
00162-0000	Prepayments	74,108.25	74,108.25	13,288.25	74,108.25	(60,820.00)
00163-0000	Deferred Outflows	134,447.00	134,447.00	138,309.00	134,447.00	3,862.00
00163-0001	Deferred Outflows-OPEB	140,684.00	140,684.00	120,304.00	140,684.00	(20,380.00)
	Total Cash & Accrued Assets	1,344,089.94	1,671,637.85	1,308,286.09	1,344,089.94	(35,803.85)
	Total Assets	14,617,550.48	15,420,914.97	14,714,335.87	14,617,550.48	96,785.39
			Liabilities & Other Credits			
Current Liabilities						
00231-0000	Accounts Payable	104,572.63	104,290.50	84,999.59	104,572.63	(19,573.04)
00230-0000	Accrued Interest	72,845.31	72,845.31	59,892.31	72,845.31	(12,953.00)
00235-0000	Customer Deposits	59,306.42	60,500.66	34,399.60	59,306.42	(24,906.82)

Account		2022 Beginning Balance	Previous Period Balance	2022 YTD 12/31/22	2021 YTD 12/31	Difference
00236-0000	AccruedTaxes	8,692.00	10,632.24	10,632.24	8,692.00	1,940.24
00236-0001	Retirement Payable	5,226.56	1,537.11	9,000.07	5,226.56	3,773.51
00236-0002	Christmas Club	500.00	500.00	500.00	500.00	0.00
00236-0003	Aflac	119.88	53.28	53.28	119.88	(66.60)
00236-0004	State Tax Withholding	1,484.42	1,371.39	1,637.25	1,484.42	152.83
00236-0005	Local Tax Withholding	1,134.10	593.75	1,070.33	1,134.10	(63.77)
00236-0006	Wages Payable	0.00	9,604.28	0.00	0.00	0.00
00236-0007	State Sales Tax Payable	2,049.55	2,048.31	3,532.57	2,049.55	1,483.02
00236-0008	Retirement/Health Insurance	3,120.91	4,796.50	4,999.13	3,120.91	1,878.22
00237-0000	School Utilities Taxes Payable	4,841.58	4,647.68	3,138.22	4,841.58	(1,703.36)
	Total Current Liabilities	263,893.36	273,421.01	213,854.59	263,893.36	(50,038.77)
			Long Term Liabilities			
00232-0015	KRWFC Loan/Refinancing	320,000.00	320,000.00	250,000.00	320,000.00	(70,000.00)
00232-0016	Bond Premium	42,099.00	42,099.00	36,837.00	42,099.00	(5,262.00)
00232-0017	2014 KRWFC Loan	951,500.00	951,500.00	933,500.00	951,500.00	(18,000.00)
00232-0019	Overland Development	106,000.00	106,000.00	104,500.00	106,000.00	(1,500.00)
00232-0020	Net Pension Liability	669,904.00	669,904.00	717,769.00	669,904.00	47,865.00
00232-0022	Deferred Inflows	188,007.00	188,007.00	145,386.00	188,007.00	(42,621.00)
00232-0023	Deferred Inflows-OPEB	155,172.00	155,172.00	142,845.00	155,172.00	(12,327.00)
00232-0024	OPEB Liability	201,113.00	201,113.00	195,911.00	201,113.00	(5,202.00)
00232-0025	KRWFC Interium Loan	1,620,000.00	1,620,000.00	1,500,000.00	1,620,000.00	(120,000.00)
00232-0026	Phase V Loan 20	1,649,000.00	1,649,000.00	1,627,000.00	1,649,000.00	(22,000.00)
00232-0030	2022 Ford Truck Single Cab Pmt.	0.00	0.00	26,314.97	0.00	26,314.97
00232-0031	2022 Ford Truck Extended Cab	0.00	0.00	47,794.02	0.00	47,794.02
00232-0027	Phase V Loan 22	389,500.00	389,500.00	384,000.00	389,500.00	(5,500.00)
00232-0030	2022 Ford Truck Single Cab Pmt.	0.00	0.00	26,314.97	0.00	26,314.97
00232-0031	2022 Ford Truck Extended Cab	0.00	0.00	47,794.02	0.00	47,794.02
	Total Long Term Liabilities	6,292,295.00	6,292,295.00	6,185,965.98	6,292,295.00	(106,329.02)
			Equity			
00215-0001	Retained Earnings Balance	2,940,915.44	2,940,915.44	2,945,369.44	2,979,518.15	(34,148.71)
00215-0002	Donated Capital	10,738,723.00	10,738,723.00	10,738,723.00	10,738,723.00	0.00
00414-0001	Gains (Losses) on sale of capital assets	0.00	0.00	9,000.00	0.00	9,000.00
00421-0015	KIA Grant for River Xing	0.00	368,587.00	368,587.00	0.00	368,587.00
00636-0007	Contractual Services- Nexbillpay	0.00	399.99	399.99	399.99	0.00
00435-0000	Balance Transferred from Income	263,554.56	263,554.56	263,554.56	263,554.56	0.00

Account		2022 Beginning Balance	Previous Period Balance	2022 YTD 12/31/22	2021 YTD 12/31	Difference
	Total Equity	14,617,550.48	14,995,265.14	14,833,915.70	14,578,547.78	255,367.92
	Difference	0.00	(425,649.83)	119,579.83	(39,002.70)	158,582.53

APPLICATION EXHIBIT 9

Proposed Accounting
Uniform System of Accounts

GL	GL Description	Item Description	Debit	Credit
232-0033	Water Loss Reduction Project	2023 Bond		$ 3,991,369.00
334-0000	Meters Installation	Meters and GIS Services	$ 1,077,670.00	
304-0000	Structures and Improvements	Tools and advanced Meter Infrastructure	$ 1,317,152.00	
347-0000	Miscellaneous Equipment	Leak detection and resolution	$ 598,705.00	
331-0000	Transmission and Distribution mains	Automated Zone Metering	$ 638,619.00	
636-0008	Contractual Services- Integrity Water	Professional Services	$ 359,223.00	