

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

<b>ELECTRONIC BIG SANDY WATER DISTRICT'S</b>	)	
<b>UNACCOUNTED-FOR WATER LOSS</b>	)	<b>CASE NO.</b>
<b>REDUCTION PLAN, SURCHARGE AND</b>	)	<b>2022-00301</b>
<b>MONITORING</b>	)	

**Response of**  
**Big Sandy Water District**  
**To**  
**Commissions Staff's Request for**  
**A Qualified Infrastructure Improvement Plan**

**Filed December 16, 2022**

**Big Sandy Water District**  
**Infrastructure Improvement Plan**

In Case No. 2022-00301 Big Sandy Water District was ordered to file with the Public Service Commission a comprehensive infrastructure improvement plan, including a comprehensive unaccounted-for water loss reduction plan that establishes priorities and a time schedule for eliminating each source of unaccounted-for water loss and provides a detailed spending plan for the proceeds of a surcharge.

The following list is prioritized in the order of need. These prices were quoted to BSWD but is subject to change due to inflation and supply.

**Leak Detection**

Big Sandy Water District (BSWD), as part of the infrastructure improvement plan, will purchase two trucks for use in leak detection and repair work. The estimated cost, of \$80,000, for two trucks. This includes a contingency to account for potential increases due to supply and chain problems. BSWD will supply these trucks to current employees whom are without a vehicle to get to and from leaks.

BSWD's leak detection equipment that was purchased in 2005 has a limited ability to detect leaks. BSWD will buy a more sensitive and accurate listening device. BSWD will also buy water leak loggers that will be used in meter zones experiencing higher than normal usage to acoustically detect leaks. The estimated cost of these items is \$18,738.

Kentucky Rural Water Association has required BSWD to replenish the amount of \$100,000 removed for BSWD's Depreciation Reserve fund to finance the initial purchase of 1,100 meters. Approximately \$81,665 remains to be returned to the fund. The District's financial hardships have failed to allow the District to repay these funds as needed. BSWD will refund this amount over a period of five years as part of the infrastructure improvement plan.

BSWD will purchase an additional 1,000 meters to replace existing meters and to return BSWD to compliance with the meter testing requirements of 807 KAR 5:066, Section 16. The estimated cost of these meters is \$216,000.

BSWD will hire two part-time employees, as soon as possible, whose sole assignment will be leak detection and repair. The employees will be expected to work approximately 30 hours per week for 50 weeks per year at a starting hourly wage of \$15.00. Estimated annual cost which includes federal payroll taxes is \$48,442.50.

BSWD has a need for updating the current meter building or constructing a new one. The building is in poor condition and its meter test bench can test only four meters at one setting. These conditions have contributed to the failure to meet meter testing requirements. The estimated cost of the meter building would be \$180,000 and the meter bench is estimated at \$27,815.

As part of the infrastructure improvement plan, BSWD will purchase approximately ten pumps, VFD's and motors. This will help to avoid potential water loss due to pumping and power failures which the District has struggled with in 2021-2022. One portable generator will be purchased to ensure the system resiliency and continuity of service. The estimated cost is \$168,000 for pumps, VFD's, and motors and \$89,668 for the generator.

BSWD's Board of Commissioners are considering a contract with Integrity Water and Energy, LLC to help improve water loss. Integrity Water and Energy's approach is twofold: have an immediate impact on leak detection and equip and train employees for continued success. This will also include purchasing GPS software and equipment as well as identifying the geography coordinates of meters, valves, hydrants, and existing taps. Integrity Water and Energy will also add additional zoning meters to the system. Once established, BSWD would be able to maintain the health of the water system for years to come. At this time, the contract has not been conducted, however, it is the hope of the District to use the remaining surcharge funds to help finance this project. Once the District is aware of the cost estimation, the District will look for approval of PSC to go forward.

### **Conclusion**

Big Sandy Water District's water loss on average is above 15%. Repairs and replacement materials are always needed as the water system ages. Over time, wear and tear can cause meters moving parts to stick, thus recording less water than consumed and creating non-revenue water. It is imperative that BSWD upgrade the older meters to provide higher accuracy of meter readings. BSWD will continue to find and fix leaks to ensure that the District's water loss will decline. BSWD will also look for new technology and innovative tools that will help locate these leaks. These new employees, capital purchases, tools and equipment will allow BSWD to be more efficient when pinpointing the leaks. The funds from this surcharge will provide additional investment in the Big Sandy Water District infrastructure.

Respectfully,

A handwritten signature in cursive script that reads "James Blanton".

James Blanton