BIG SANDY
WATER DISTRICT

REPORT ON EXAMINATION OF BASIC FINANCIAL STATEMENTS
AND SUPPLEMENTAL INFORMATION
for the year ended December 31, 2019

CONTENTS

John T. Lane and Associates, LLC
Certified Public Accountants
219 Young Lane, Suite 2
Mt. Sterling, Kentucky 40353
(859) 498-9915
www.thelanecpa.com

Member:
American Institute of CPA's
Kentucky Society of CPA's

INDEPENDENT AUDITOR'S REPORT

Board of Commissioners
Big Sandy Water District
Catlettsburg, Kentucky

Report on the Financial Statements
We have audited the accompanying financial statements of the business-type activities of the Big Sandy Water District as of and for the year ended December 31, 2019 and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements
Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility
Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions
In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities, of the Big Sandy Water District as of December 31, 2019, and the respective changes in financial position, and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required supplementary information

Accounting principles generally accepted in the United States of America require that the management's discussion & analysis on pages 3 and 4 and NPL & OPEB schedules & notes on pages 22-26 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Big Sandy Water District's basic financial statements. The comparative statement of revenues and expenses is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The comparative statement of revenues and expenses is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the comparative statement of revenues and expenses is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other reports required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated June 11, 2020 on our consideration of the Big Sandy Water District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering Big Sandy Water District's internal control over financial reporting and compliance.

John T. Lane & Associates, LLC

Mount Sterling, Kentucky
June 11, 2020
This report contains 28 pages.

Management's Discussion and Analysis

In June, 1999, the Governmental Accounting Standards Board (GASB) adopted Statement 34, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments. The standard requires that a "Management Discussion and Analysis" be included in the annual report along with annual audited financial statements.

Our discussion and analysis of the Big Sandy Water District's Financial performance provided an overview of the Company's financial activities for the year ended December 31, 2019. This information is presented in conjunction with the audited financial statements that follow this section.

Financial Highlights

In 2019, Big Sandy Water District had two significant activities that affected our financial status.

In June 2019, Big Sandy Water District starting changing out meters on our ten year or older list (approximately 2,400 meters). Between June and December, Big Sandy Water purchased 300 meters at a cost of $61,212.00. We also had to purchase the repair parts to work on the meters that came out of ground at a cost of $41,103.00.

In October 2019, Big Sandy Water District commenced our Phase V Project which includes four contracts: Contract F-1 Water Tank Painting & Repairs, Contract G-1 Water Booster Pump Station Upgrades, Contract H-1 Stream Crossing Replacements & Service Line Replacements and Contract I-1 Office Building. This project will be fundd by two USDA/RD Loans for $3,040,000 and $1,670,000 and two RD Grants for $395,000 and $845,000. These projects will be completed in 2020.

Required Financial Statements

The financial statements of Big Sandy Water District (BSWD) reports information of BSWD using accounting methods similar to those used by private sector companies. These statements offer short and long-term financial information and its activities. The Statement of New Assets included all of Big Sandy Water District's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and the obligations to BSWD creditors (liabilities). It also provides the basis for evaluating the capital structure of BSWD and assessing the liquidity and financial flexibility of BSWD.

All of the current year's revenues and expenses are accounted for in the Statement of Revenues, Expenses and Changes in Net Assets. This statement measures the success of Big Sandy Water District's operations over the past year and can be used to determine whether BSWD has successfully recovered all its costs through its user fees and other charges, profitability and credit worthiness.

The final required financial statement is the Statement of Cash Flows. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities and provides answers to such questions as where did the cash come from, what was the cashed used for, and what was the change in cash balance during the reporting period.

Financial Analysis

Total assets to total liabilities for 2019 show a ratio of 1.92 to 1 meaning BSWD has $1.92 worth of assets to each $1.00 worth of liabilities. This compares to 2018 at 2.63 to 1 and 2017 at 2.69 to 1.

The Operating Revenue in 2019 decreased from $2,569,544 to $2,491,108. Forty-nine percent of the revenue goes to purchase water. Twenty-seven percent of the revenue goes to hourly employees and benefits.

Charge-off accounts that were deemed not collectable were $11,294 in 2019 compared to $18,737 in 2018. This is .45% of revenue. That amount is covered by the $55,219 collected as late payment penalties.

Request for Information

This financial report is designed to provide our customers and creditors with a general overview of Big Sandy Water District's Finances and to demonstrate Big Sandy Water District's accountability for the funds it receives. If you have any questions about this report or need any additional information, please contact Teresa Brown at (606) 928-2075 or 1-800-354-2933.

Big Sandy Water District
Statement of Net Position
Proprietary Fund Type
December 31, 2019

ASSETS

Current Assets	
Cash and cash equivalents - unrestricted	$ 409,959
Cash and cash equivalents - restricted (note 6)	1,687,432
Accounts receivable - net of allowance for doubtful accounts (note 1)	257,559
Accrued interest receivable	1,007
Inventory	87,618
Prepaid expenses	11,819
Total Current Assets	2,455,394
Noncurrent Assets	
Capital assets: (note 1)	
Land	99,529
Construction in process	968,676
Plant, equipment and lines	20,340,705
Less accumulated depreciation	(9,379,085)
Total Noncurrent Assets	12,029,825
Deferred outflow of resources	232,340
Total Assets & Deferred Outflow of Resources	$ 14,717,559

LIABILITIES

Current Liabilities	
Accrued expenses	$ 237,746
Notes/Bonds payable (note 2)	2,283,491
Payable from restricted assets	124,370
Total Current Liabilities	2,645,607
Noncurrent Liabilities	
Notes/Bonds payable (note 2)	3,329,112
Accrued pension & OPEB liabilities	818,478
Total Noncurrent Liabilities	4,147,590
Deferred Inflows of Resources	245,155
Total Liabilities & Deferred Inflow of Resources	7,038,352

Net Position

Net investment in capital assets	6,417,222
Restricted	1,563,062
Unrestricted	(301,077)
Total Net Position	$ 7,679,207

The accompanying notes to the basic financial statements are an integral part of these statements.

Big Sandy Water District
Statement of Revenues, Expenses and Changes in Fund Net Position
Proprietary Fund Type
For the year ended December 31, 2019

Revenues	
User fees	$ 2,459,585
Other water revenue	31,523
Total Revenues	2,491,108
Expenses	
Wages	472,184
Commissioners expense	2,289
Taxes & benefits	190,364
Purchased water & power	1,213,748
Materials & supplies	345,509
Contractual services	121,523
Trasnsportation expense	36,716
Equipment expense	17,766
Insurance	28,264
Postage	20,903
Bad debt	11,294
Other expense	14,823
Telephone	9,212
Depreciation	502,603
Total Operating Expenses	2,987,198
Operating Income (Loss)	(496,090)
Nonoperating Revenues (Expenses)	
Tap fees	42,785
Interest income	9,064
Other nonoperating revenues	11,305
Interest expense	(139,024)
Net Nonoperating Revenues (Expenses)	(75,870)
Net Income (Loss)	(571,960)
Total Net Position - beginning	8,251,167
Total Net Position - ending	$ 7,679,207

The accompanying notes are an integral part of the financial statements.

Big Sandy Water District
Statement of Cash Flows
Proprietary Fund Type
December 31, 2019

CASH FLOWS FROM OPERATING ACTIVITIES:	
Operating revenues	$ 2,482,863
Cash paid to employees	(472,184)
Cash paid for general and administrative expenses	(1,987,424)
Net Cash provided by operating activities	23,255
CASH FLOWS FROM INVESTING ACTIVITIES:	
Interest earned	8,057
Customer deposits	1,859
Net Cash provided by investing activities	9,916
CASH FLOWS FROM CAPITAL AND FINANCING ACTIVITIES:	
Note/bond payments	(212,992)
Note/bond proceeds	2,065,000
Tap fees	42,785
Purchase of assets	(811,959)
Sale of assets	13,175
Other nonoperating revenues	3,100
Interest paid	(149,593)
Net Cash used in capital and financing activities	949,516
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	982,687
CASH AND CASH EQUIVALENTS - BEGINNING OF YEAR	1,114,704
CASH AND CASH EQUIVALENTS - END OF THE YEAR	$ 2,097,391
RECONCILIATION OF NET CASH PROVIDED BY OPERATING ACTIVITIES:	
Net Operating Income	$ (496,090)
Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities:	
(Increase)/Decrease in inventory	(19,801)
Depreciation	502,603
Pension & OPEB expense	(18,142)
(Increase)/Decrease in accounts receivable	(8,245)
Increase/(Decrease) in accounts payable	62,930
Net cash provided by operating activities	$ 23,255

The accompanying notes to the basic financial statements are an integral part of these statements.

Note 1 - Summary of Significant Accounting Policies

The Big Sandy Water District is a water utility which services areas of Boyd, Carter, Johnson and Lawrence Counties. Its sales are primarily to residential customers. The District is a corporate body set forth in Kentucky Revised Statutes (KRS) 74.070 which was created November, 1981. The District is subject to the regulatory District of the Kentucky Public Service Commission pursuant to KRS 278. 040.

The accounting policies of the District conform to accounting principles generally accepted in the United States of America as applicable to governments. The following is a summary of the more significant policies.

The Reporting Entity
The District, for financial purposes, includes all of the funds relevant to the operations of the District. The financial statements presented herein do not include agencies which have been formed under applicable state laws or separate and distinct units of government apart from the Big Sandy Water District.

The financial statements of the District would include those of separately administered organizations that are controlled by or dependent on the District. Control or dependence is determined on the basis of financial interdependency, selection of governing District, designation of management, ability to significantly influence operations, accountability of fiscal matters, scope of public service, and financing relations.

Based on the foregoing criteria there are not other organizations included in these financial statements.

Depreciation Reserve Fund - Monthly transfers are required to be made into this fund until it reaches the fully funded level of $233,400. Only expenditures for capital improvements or extraordinary expenses are permitted to be paid from this fund. The District had set aside $216,969 into this fund at December 31, 2019. The required balance at December 31, 2019 is $208,200.

Bond and Interest Sinking Fund (USDA) - Monthly transfers are required to be made into this account in an amount equal to one-sixth (1/6) of the interest becoming due on the next succeeding interest due date for all outstanding bonds and one-twelfth (1/12) of the principal of all such bonds maturing on the next succeeding due date. The required balance of the fund at December 31, 2018 was $174,886. The District had set aside $178,333.

Bond and Interest Sinking Fund (KRWFC) - Monthly transfers are required to be made into this account in an amount equal to one-sixth (1/6) of the interest becoming due on the next succeeding interest due date for all outstanding bonds and one-twelfth (1/12) of the principal of all such bonds maturing on the next succeeding due date. The required balance of the fund at December 31, 2019 was $136,949. The District had set aside $143,276.

The accounting and financial reporting treatment applied to the District is determined by its measurement focus. The transactions of the District are accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operations are included on the balance sheet. Net assets (i.e., total assets net of total liabilities) are segmented into invested in capital assets, net of related debt, restricted and unrestricted components. When both restricted and unrestricted resources are available for use, it is the District's policy to use restricted resources first, and then unrestricted resources as they are needed.

Enterprise Funds
Enterprise Funds are used to account for operations (a) that are financed and operated in a manner similar to private business enterprise where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability, or other purposes.

Basis of Accounting
The records of the District are maintained and the budgetary process is based on the accrual method of accounting.

Inventory
The cost of inventory is recorded as a disbursement at the time of payment for the purchase. Materials on hand are inventoried at year end and recorded as an asset at that time. They are recorded at lower of cost or market valued on the FIFO method.

Cash
At December 31, 2019, the carrying amount of the District's deposits was $2,097,391 and the bank balance was $2,129,614. Of the bank balance $266,485 was covered by federal deposit insurance, $571,000 was collateralized with securities held by the pledging financial institution’s trust department and $1,292,129 was invested in US Government securities. The District considers all investments with a maturity of three months or less from date of purchase to be cash equivalents. Certificates of deposit that are redeemable immediately with little or no penalty are considered cash equivalents.

Capital assets
Capital assets purchased are capitalized at the time of purchase. Such assets are recorded at cost. Donated assets are recorded at fair market value at the date of donation.

Depreciation of property and equipment is computed by the straight-line method based upon the estimated useful lives of the assets as follows:

Class	Life
Lines and tanks	50 years
Hydrants	30 years
Meters	20 years
Equipment	10 years
Vehicles	5 years

The District’s capitalization policy is as follows: expenditures costing more than $5,000 with an estimated useful life greater than one year are capitalized; all others are expensed.

Net Position
Net position represents the difference between assets and liabilities. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balance of any borrowing used for the acquisition, construction or improvement of those assets. Net position is recorded as restricted when there are limitations imposed on their use by external restrictions.

Investments
Investments, if any, are carried at cost which is the lower of cost or fair market value.

Accounts Receivable
The receivable reflected in the statements in the amount of $257,559 is net of allowance for uncollectible in the amount of $-0-.

Use of Estimates
The preparation of financial statements in conformity with accounting principles generally accepted in Unites States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and reported amounts of revenues and expenditures during the reporting period. Actual results could differ from those estimates.

Note 2 - Notes Payable

The amount shown in the accompanying financial statements as notes payable represents the District's future obligation to make loan payments from future revenues. At December 31, 2019, nine separate loans had outstanding balances. Details of each of these issues are summarized as follows:

Note A
Lender – Rural Development
Balance of loan - $712,500
Rate – 4.5%
Principal due January 1
Interest due January and July 1
Prepayment provision - subject to payment prior to its stated maturity without penalty or premium, at any time upon ten (10) days notice.

Note B
Lender – USDA
Balance of loan - $403,000
Rate – 4.5%
Principal due January 1
Interest due January and July 1
Prepayment provision - subject to payment prior to its stated maturity without penalty or premium, at any time upon ten (10) days notice.

Note C
Lender – USDA
Balance of loan - $986,000
Rate – 2.75%
Principal due January 1
Interest due January 1 and July 1
Prepayment provision - subject to payment prior to its stated maturity without penalty or premium, at any time upon ten (10) days notice.

Note D
Lender – USDA
Balance of loan - $338,000
Rate – 4.5%
Principal due January 1
Interest due January 1 and July 1
Prepayment provision – subject to payment prior to its stated maturity without penalty or premium, at any time upon ten (10) days notice.

Note E
Lender – KRWFC
Balance of loan - $463,000
Rate – Variable
Principal due – January 1
Interest due January 1 and July 1

Note F
Lender – KRWFC
Balance of loan - $470,000
Rate – variable
The bonds were sold at a premium of $84,203, which is being amortized over the term of the bond. The unamortized bond premium is recorded as a noncurrent liability. The premium amortization which is a decrease to interest expense was $5,263 for 2016. The unamortized bond premium at December 31, 2016 was $63,151.
Principal due – January 1
Interest due – January 1 and July 1

Note G
Lender – USDA
Balance of loan - $109,000
Rate – 3.25%
Principal due January 1
Interest due January and July 1
Prepayment provision - subject to payment prior to its stated maturity without penalty or premium, at any time upon ten (10) days notice.

Note H
Lender – Kubota Credit Corporation
Balance of loan - $18,741
Rate –0%
Principal- monthly payments of $1,249

Note I
Lender – KRWFC (interim financing)
Balance of loan - $2,065,000
Rate – 3.40%
Principal & interest due – February 1, 2020

Schedule of Notes/Bonds Payable	balance 12/31/2018	Additions	Payments	balance 12/31/2019	Current Portion
USDA 91-07	$747,000	$ -	$34,500	$712,500	$36,500
USDA 91-10	350,000	-	12,000	338,000	12,500
USDA 91-11	413,500	-	10,500	403,000	11,000
USDA 91-16	1,002,500	-	16,500	986,000	17,000
USDA 91-18	110,500	-	1,500	109,000	1,500
Kubota	33,733	-	14,992	18,741	14,991
Kentucky Rural Water 2007	511,000	-	48,000	463,000	50,000
Kentucky Rural Water 2013	545,000	-	75,000	470,000	75,000
Kentucky Rural Water 2019	-	2,065,000	-	2,065,000	2,065,000
	$3,713,233	$2,065,000	$212,992	$5,565,241	$2,283,491
Bond premium	52,625	-	5,263	47,362	-
	$3,765,858	$2,065,000	$218,255	$5,612,603	$2,283,491

Schedule of maturities

	Principal	Interest		Principal	Interest
2020	2,283,491	138,980	2030-2034	587,500	200,779
2021	212,250	119,282	2035-2039	345,500	114,431
2022	209,000	110,520	2040-2044	227,500	65,541
2023	205,000	101,644	2045-2049	198,500	37,744
2024	177,000	93,322	2050-2054	232,500	8,429
2025-2029	887,000	350,603	2055-2059	-	-
				$5,565,241	$ 1,341,276

Note 3 - Leave Policies

The District's employees are covered by leave policies as follow:

a) sick leave – one day per month to a maximum accumulation of sixty days;
b) annual leave – five days per annum with 1-2 years employment; ten days per annum with 3-9 years employment; fifteen days per annum after 10 years employment. One week of annual leave may be carried forward to the next year, but must be taken by March 31st of that year. Up on the retirement, termination of or medical retirement of an employee the District shall continue to employ and pay the employee for any accrued earned vacation days. The employee termination date shall be the last day of earned vacation paid.

Note 4 - Changes in Capital assets

The following is a summary of changes in the capital assets for the fiscal year:

	balance 12/31/18	Transfer/ Additions	Deletions	balance 06/30/19
Land	$99,529	$0	$0	$99,529
Structures & improvements	121,531	-	-	121,531
Distributions system	17,817,980	4,421	-	17,822,401
Utility plant in service (UPIS)	124,728	-	-	124,728
UPIS acquisition adjustment	24,805	-	-	24,805
Vehicles	252,906	-	(29,168)	223,738
Equipment	2,016,510	6,992	-	2,023,502
Construction in process	168,130	800,546	-	968,676
	20,626,119	811,959	(29,168)	21,408,910
Accumulated depreciation	8,900,680	502,603	(24,198)	9,379,085
Net capital assets	11,725,439			12,029,825

Note 5 - Revenue Bonds

Water and Revenue Bonds constitute special obligations of the District solely secured by a lien on and pledge of the net revenues of the water system. The revenue bonds are collateralized by the revenue of the water system and the various special funds established by the bond ordinances. The ordinances provide that the revenue of the system is to be used first to pay operating and maintenance expenses of the system and second to establish and maintain the revenue bond funds. Any remaining revenues may then be used for any lawful purpose. The ordinances also contain certain provisions, which require the District to maintain pledged revenues. The District must transfer monthly 1/6 of the next succeeding interest payment and 1/12 of the next succeeding principal payment from the operations and maintenance account into the bond and interest sinking account.

Note 6 - Restricted Cash

Restricted cash is composed of the following:

Depreciation reserve fund	$216,969
Construction account	1,148,854
Debt reserve fund Regions (KRWFC)	143,276
Debt reserve fund (USDA)	178,333
	$1,687,432

Note 7 - Contingencies

The District is subject to possible examinations made by Federal and State authorities who determine compliance with terms, conditions, laws, and regulations governing other grants given to the District in the current and prior years. There were no examinations for the year ended December 31, 2019. Areas of noncompliance, if any, as a result of examinations would be included as a part of the "Findings and Questioned Costs" section of this report.

Note 8 - Risk Management

The District is exposed to various risks of losses related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The District carries commercial insurance coverage for the risks to the extent deemed prudent by District management.

Note 9 - Investments

The District's investment policy is governed by the Kentucky Statutes. These requirements authorize the District to invest in obligations backed by full faith and credit of the United States and obligations of any corporation of the United States government. The policy requires that amounts on deposit with financial institutions be collateralized at a rate of 100% of amounts in excess of deposit insurance coverage.

Note 10 – Subsequent Events

The District has evaluated subsequent events through June 11, 2020 the date which the financial statements were available to be issued.

Note 11 – Defined Benefit Pension Plan

General Information About the Pension Plan

Plan description - Regular, full-time, employees of the Water District are provided with pensions through the County Employees' Retirement System (CERS)—a cost-sharing multiple-employer defined benefit pension plan administered by the Kentucky Retirement System. The assets of CERS are pooled with two other retirement systems Kentucky Retirement System administers, KERS & SPRS. Although invested each system's assets are used only for the members of that plan. Kentucky Revised Statute (KRS) chapter 61 grants the authority to establish and amend the benefit terms to the Kentucky Retirement System's Board of Trustees (Board). Kentucky Retirement System issues a publicly available financial report that can be obtained on their website.

Benefits provided - CERS provides retirement, insurance, disability, and death benefits. Retirement benefits are determined from an average of the five highest years of compensation for those whose participation began before September 01, 2008. For those who began participation on or after September 01, 2008 retirement benefits are determined as an average of the last complete five years. A percentage is then taken from those averages based on the employee's months of service. Employees are eligible for service-related disability benefits with at least 60 months of service. If the member is receiving monthly benefits based on at least four years of service, then a $5,000 death benefit is payable to the member's designated beneficiary. For those employees whose participation began prior to July 01, 2003, CERS will pay a portion of the monthly premium for single coverage based upon service credit accrued at retirement. For those employees whose participation began on or after July 01, 2003 and before September 01, 2008, employees are required to earn at least 10 years of service credit to be eligible for insurance benefits. Employees whose participation began on or after September 01, 2008 must earn at least 15 years of service credit to be eligible for insurance benefits.

Membership in the CERS Non-hazardous Pension Fund consisted of the following on June 30, 2019:

Membership Status	
Retirees and beneficiaries receiving benefits	58,933
Inactive memberships	85,300
Active plan members	84,632
Total plan members	228,865

Prior to July 1, 2009, cost of living adjustments (COLAs) were provided annually equal to the percentage increase in the annual average of the consumer price index (CPI) for all urban consumers for the most recent calendar year, not to exceed 5% in any plan year. After July 1, 2009, the COLAs were limited to 1.50%. No COLA has been granted since July 1, 2011.

Contributions

The Commonwealth is required to contribute at an actuarially determined rate for KERS and SPRS pensions. Participating employers are required to contribute at an actuarially determined rate for CERS pensions. Per Kentucky Revised Statute Sections KERS 61.565(3), CERS 78.545(33), and SPRS 16.645(18), normal contribution and past service contribution rates shall be determined by the Board on the basis of the last annual valuation preceding July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. However, formal commitment to provide the contributions by the employer is made through the biennial budget for KERS and SPRS.

For the fiscal years ended June 30, 2019 and 2018, participating employers contributed a percentage of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal year is a percentage of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings.

TIER 1:

Tier 1 plan members who began participating prior to September 1, 2008, are required to contribute 5% (Non-Hazardous) or 8% (Hazardous) of their annual creditable compensation. These members are classified in the Tier 1 structure of benefits. Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest.

TIER 2:

Tier 2 plan members, who began participating on, or after, September 1, 2008, and before January 1, 2014, are required to contribute 6% (Non-Hazardous) or 9% (Hazardous) of their annual creditable compensation. Further, 1% of these contributions are deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation (KAR) 105 KAR 1:420 Employer's administrative duties). These members are classified in the Tier 2 structure of benefits. Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited.

TIER 3:

Tier 3 plan members, who began participating on, or after, January 1, 2014, are required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and a defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Members contribute 5% (Non-Hazardous) or 8% (Hazardous) of their annual creditable compensation, and an additional 1% to the health insurance fund (401(h) account), which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. A member's account is credited with a 4% (Non-Hazardous) or 7.5% (Hazardous) employer pay credit. The employer pay credit represents a portion of the employer contribution.

Contribution Rates and Amounts for CERS Non-Hazardous

				Employer		
Period	Pension	Insurance	Total	Pension	Insurance	Employee
01/01/2019-06/30/2019	16.22%	5.26%	21.48%	$32,330	$10,484	$6,836
07/01/2019-12/31/2019	19.30%	4.76%	24.06%	41,732	10,292	7,861
Totals				$74,062	$20,776	$14,697

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At December 31, 2019, the Water District reported a liability of $660,544 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Water District's portion of the net pension liability was based on the Water District's proportionate share of retirement contributions for the fiscal year ended June 30, 2019. On June 30, 2019 the Water District's proportionate share was 0.009392%.

Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce pension expense, they are labeled deferred inflows. If they will increase pension expense, they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five-year period. For the year ended December 31, 2019, the Water District recognized pension expense of $48,508. On December 31, 2019, the Water District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual Liability Experience	$16,866	$2,791
Changes in assumptions	66,855	-0-
Differences between expected and actual Investment Experience	12,680	23,328
Changes in proportion and differences between employer contributions and proportionate share of contributions	26,972	105,457
Contributions subsequent to the measurement date	41,732	-0-
Total	$165,105	$131,576

$41,732 reported as deferred outflows of resources related to pensions resulting from the Water District's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2019. The remaining amount of ($8,203) reported as the net effect of deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ended December 31,	Amount
2020	($15,992)
2021	(4,151)
2022	11,183
2023	757
2024	-0-
Thereafter	-0-
Total	($8,203)

Actuarial methods & assumptions: For financial reporting, the actuarial valuation as of June 30, 2019, was performed by Gabriel Roeder Smith (GRS). The total pension liability, net pension liability, and sensitivity information as of June 30, 2019 were based on an actuarial valuation date of June 30, 2018. The total pension liability was rolled-forward from the valuation date (June 30, 2018) to the plan's fiscal year ending June 30, 2019, using generally accepted actuarial principles.

The actuarial assumptions are:

Inflation	2.30% for all plans
Payroll Growth Rate	2.0% for CERS non-hazardous
Salary Increases	3.30% to 10.30% varies by service for CERS non-hazardous
Investment Rate of Return	6.25% for CERS Non-hazardous

The mortality table used for active members was a Pub-2010 General Mortality table, for the Non-Hazardous System, and the Pub-2010 Public Safety Mortality table for the Hazardous System, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010. The mortality table used for healthy retired members was a system-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019. The mortality table used for the disabled members was PUB-2010 Disabled Mortality table, with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010.

House Bill 1 passed during the 2019 Special Legislative Session allows certain employers in the KERS Nonhazardous plan to elect to cease participating in the System as of June 30, 2020. Since each employer's election was unknown at the time of the valuation, and the legislation was enacted after the June 30, 2019 measurement date, no adjustments were made to the Total Pension Liability to reflect this legislation. There were no other plan provision changes. The following actuarial methods and assumptions were used to determine the actuarially determined contributions effective for fiscal year ending June 30, 2019:

Valuation Date	June 30, 2017
Experience Study	July 1, 2008 - June 30, 2013
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent of pay
Amortization Period	26 years, Closed
Payroll Growth Rate	2.00% for CERS non-hazardous
Asset Valuation Method	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized
Inflation	2.30%
Salary Increase	3.30%-15.55%, Varies by Service for CERS non-hazardous
Investment Return	6.25% for CERS Non-hazardous

The mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set back 1 year for females).

Post-retirement mortality (non-disabled): System-specific mortality table on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019.

Post-retirement mortality (disabled): PUB-2010 Disabled Mortality table, with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 improvement scale using a base year of 2010.

The long-term expected rates of return were determined by using a building block method in which best estimated ranges of expected future real rates of return were developed for each asset class. The ranges were combined by weighting the expected future real rate of return by the target asset allocation percentage. The target allocation and best estimates of arithmetic real rate of return for each major asset class are summarized in the tables below.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Growth	**62.50%**	
US Equity	18.75%	
Non-US Equity	18.75%	4.30%
Private Equity	10.00%	4.80%
Specialty Credit/High Yield	15.00%	2.60%
Liquidity	**14.50%**	
Core Bonds	13.50%	1.35%
Cash	1.00%	.20%
Diversifying Strategies	**23.00%**	
Real Estate	5.00%	4.85%
Opportunistic	3.00%	2.97%
Real Return	15.00%	4.10%
Total	**100.00%**	**3.89%**

Long Term Inflation Expectation is 2.30%

Discount rate - The projection of cash flows used to determine the discount rate of 5.25% for the KERS Non-hazardous, and 6.25% for KERS Hazardous, CERS Non-hazardous, and CERS Hazardous assumed that local employers would contribute the actuarially determined contribution rate of projected compensation over the remaining 25 years (closed) amortization period of the unfunded actuarial accrued liability. The discount rate determination does not use a municipal bond rate. The target asset allocation and best estimates of arithmetic nominal rates of return for each major asset class are summarized in the CAFR.

Sensitivity of the employer's proportionate share of the net pension liability to changes in the discount rate - The following presents the net pension liability of the System, calculated using the discount rate of 6.25%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1- percentage-point lower (5.25%) or 1-percentage-point higher (7.25%) than the current rate for non-hazardous:

	1% Decrease 5.25%	Current Discount Rate 6.25%	1% Increase 7.25%
Proportionate share of the net pension liability	$826,153	$660,544	$522,510

Pension plan fiduciary net position - Detailed information about the pension plan's fiduciary net position is available in the separately issued CERS financial report.

Note 12- Overland Development

During 2016 the District acquired Overland Development Inc. (Overland). The District acquired the water utility system, including its water lines and approximately 116 meters. Overland services the Lockwood Estates area of Boyd County, Kentucky. The District paid $50,000 to acquire Overland and will pay Overland an additional $50,000 over the next sixty months ($833.33/month) for consulting services. No provision has been made for the monthly payments. These monthly payments will be recognized as an expense monthly, as the consulting services are provided.

At the time of acquisition, Overland's capital assets totaled $124,728 and its accumulated depreciation on the assets totaled $99,533. The District has included these amounts with its capital assets and accumulated depreciation. As a result an acquisition adjustment of $24,805 has also been included and is being amortized accordingly.

Note 13 - Other Postemployment Benefits Plan (OPEB)

Under the provisions of Kentucky Revised Statute 61.645, the Board of Trustees of Kentucky Retirement Systems administers the Kentucky Employees Retirement System (KERS), County Employees Retirement System (CERS), and State Police Retirement System (SPRS) is a participating employer of the CERS. The plan issues publicly available financial statements which may be downloaded from the Kentucky Retirement Systems website.

Plan Description - The Kentucky Retirement Systems' (KRS) Insurance Fund was established to provide hospital and medical insurance for eligible members receiving benefits from KERS, CERS and SPRS. Although the assets of the systems are invested as a whole, each system's assets are used only for the payment of benefits to the members of that plan and the administrative costs incurred by those receiving an insurance benefit.

The CERS Non-hazardous Insurance Fund is a cost-sharing multiple-employer defined benefit Other Postemployment Benefits (OPEB) plan that covers substantially all regular full-time members employed in positions of each participating county, city and school board, and any additional eligible local agencies electing to participate in the System. The plan provides for health insurance benefits to plan members. OPEB may be extended to beneficiaries of plan members under certain circumstances.

Actuarial methods & assumptions: For financial reporting, the actuarial valuation as of June 30, 2019, was performed by Gabriel Roeder Smith (GRS). The total pension liability, net pension liability, net OPEB liability and sensitivity information as of June 30, 2019 were based on an actuarial valuation date of June 30, 2018. The total pension liability was rolled-forward from the valuation date (June 30, 2018) to the plan's fiscal year ending June 30, 2019, using generally accepted actuarial principles.

The mortality table used for active members was a Pub-2010 General Mortality table, for the Non-Hazardous System, and the Pub-2010 Public Safety Mortality table for the Hazardous System, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010. The mortality table used for healthy retired members was a system-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019. The mortality table used for the disabled members was PUB-2010 Disabled Mortality table, with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010.

House Bill 1 passed during the 2019 Special Legislative Session allows certain employers in the KERS Nonhazardous plan to elect to cease participating in the System as of June 30, 2020. Since each employer's election was unknown at the time of the valuation, and the legislation was enacted after the June 30, 2019 measurement date, no adjustments were made to the Total Pension Liability to reflect this legislation. There were no other plan provision changes. The following actuarial methods and assumptions were used to determine the actuarially determined contributions effective for fiscal year ending June 30, 2019.

The actuarial assumptions are:

Inflation	2.30% for all plans
Payroll Growth Rate	2.0% for CERS non-hazardous
Salary Increases	3.05%, average for non-hazardous
Investment Rate of Return	6.25% Healthcare for non-hazardous
Trend Rates	
Pre - 65	Initial trend starting at 7.00% on January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years.
Post - 65	Initial trend starting at 5.00% on January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.

Long-Term Expected Rate of Return - The long-term expected rate of return was determined by using a building-block method in which best-estimate ranges of expected future real rate of returns are developed for each asset class. The ranges are combined by weighting the expected future real rate of return by the target asset allocation percentage. The target allocation and best estimates of arithmetic real rate of return for each major asset class are summarized in the tables below.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Growth	**62.50%**	
US Equity	18.75%	
Non-US Equity	18.75%	4.30%
Private Equity	10.00%	4.80%
Specialty Credit/High Yield	15.00%	2.60%
Liquidity	**14.50%**	
Core Bonds	13.50%	1.35%
Cash	1.00%	.20%
Diversifying Strategies	**23.00%**	
Real Estate	5.00%	4.85%
Opportunistic	3.00%	2.97%
Real Return	15.00%	4.10%
Total	**100.00%**	**3.89%**

Long Term Inflation Expectation is 2.30%

Discount Rate - The projection of cash flows used to determine the discount rate of 5.86% for KERS Non-hazardous, 5.88% for KERS Hazardous, 5.85% for CERS Non-hazardous, and 5.97% for CERS Hazardous assumed that local employers would contribute the actuarially determined contribution rate of projected compensation over the remaining 25 years (closed) amortization period of the unfunded actuarial accrued liability. The discount rate determination used an expected rate of return of 6.25%, and a municipal bond rate of 3.62%, as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of June 30, 2019. However, the cost associated with the implicit employer subsidy was not included in the calculation of the System's actuarial determined contributions, and any cost associated with the implicit subsidy will not be paid out of the System's trusts. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy. The target asset allocation and best estimates of arithmetic nominal rates of return for each major asset class are summarized in the CAFR.

Use of Estimates in the Preparation of the Schedules - The preparation of the schedules in conformity with U.S. generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of additions and deductions during the reporting period. Actual results could differ from those estimates.

The following actuarial methods and assumptions, for actuarially determined contributions effective for the fiscal year ending June 30, 2019:

Valuation Date	June 30, 2017
Experience Study	July 1, 2008 - June 30, 2013
Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized
Amortization Period	26 Years, Closed
Payroll Growth Rate	2.00%
Inflation	2.30%
Salary Increases	3.30% to 11.55%, varies by service
Mortality:	RP-2000 Combined Mortality Table, projected to 2013 with Scale BB (set back 1 year for females)
Investment Return	
Pre - 65	Initial trend starting at 7.25% and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years.
Post - 65	Initial trend starting at 5.10% and gradually decreasing to an ultimate trend rate of 4.05% over a period of 11 years.

Implicit Subsidy - KRS pays fully insured premiums for the Kentucky Health Plan. The premiums are blended rates based on the combined experience of active and retired members. Because the average cost of providing health care benefits to retirees under age 65 is higher than the average cost of providing health care benefits to active employees, there is an implicit employer subsidy for the non-Medicare eligible retirees. GASB 74 requires that the liability associated with this implicit subsidy be included in the calculation of the total OPEB liability. The water district's implicit subsidy for the year ended December 31, 2019 was $2,747.

Contributions

The Commonwealth is required to contribute at an actuarially determined rate for KERS and SPRS pensions. Participating employers are required to contribute at an actuarially determined rate for CERS pensions. Per Kentucky Revised Statute Sections KERS 61.565(3), CERS 78.545(33), and SPRS 16.645(18), normal contribution and past service contribution rates shall be determined by the Board on the basis of the last annual valuation preceding July 1 of a new biennium. The Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the Board. However, formal commitment to provide the contributions by the employer is made through the biennial budget for KERS and SPRS.

For the fiscal years ended June 30, 2019 and 2018, participating employers contributed a percentage of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal year is a percentage of each employee's creditable compensation. Administrative costs of KRS are financed through employer contributions and investment earnings.

Contribution Rates and Amounts for CERS Non-Hazardous

				Employer		
Period	Pension	Insurance	Total	Pension	Insurance	Employee
01/01/2019-06/30/2019	16.22%	5.26%	21.48%	$32,330	$10,484	$6,836
07/01/2019-12/31/2019	19.30%	4.76%	24.06%	41,732	10,292	7,861
Totals				$74,062	$20,776	$14,697

For additional information regarding contributions, please refer to the Defined Benefit Pension Plan footnote.

TIER 1:

Tier 1 plan members who began participating prior to September 1, 2008, are required to contribute 5% (Non-Hazardous) or 8% (Hazardous) of their annual creditable compensation. These members are classified in the Tier 1 structure of benefits. Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest.

TIER 2:
Tier 2 plan members, who began participating on, or after, September 1, 2008, and before January 1, 2014, are required to contribute 6% (Non-Hazardous) or 9% (Hazardous) of their annual creditable compensation. Further, 1% of these contributions are deposited to an account created for the payment of health insurance benefits under 26 USC Section 401(h) in the Pension Fund (see Kentucky Administrative Regulation (KAR) 105 KAR 1:420 Employer's administrative duties). These members are classified in the Tier 2 structure of benefits. Interest is paid each June 30 on members' accounts at a rate of 2.5%. If a member terminates employment and applies to take a refund, the member is entitled to a full refund of contributions and interest; however, the 1% contribution to the 401(h) account is non-refundable and is forfeited.

TIER 3:
Tier 3 plan members, who began participating on, or after, January 1, 2014, are required to contribute to the Cash Balance Plan. The Cash Balance Plan is known as a hybrid plan because it has characteristics of both a defined benefit plan and a defined contribution plan. Members in the plan contribute a set percentage of their salary each month to their own account. Members contribute 5% (Non-Hazardous) or 8% (Hazardous) of their annual creditable compensation, and an additional 1% to the health insurance fund (401(h) account), which is not credited to the member's account and is not refundable. The employer contribution rate is set annually by the Board based on an actuarial valuation. The employer contributes a set percentage of the member's salary. Each month, when employer contributions are received, an employer pay credit is deposited to the member's account. A member's account is credited with a 4% (Non-Hazardous) or 7.5% (Hazardous) employer pay credit. The employer pay credit represents a portion of the employer contribution.

OPEB Liabilities, Expense, Deferred Outflows of Resources and Deferred Inflows of Resources - On December 31, 2019, the Water District reported a liability of $157,936 for its proportionate share of the net OPEB liability. The net OPEB liability was measured as of June 30, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of June 30, 2018, rolled-forward to June 30, 2019 using generally accepted actuarial principles. The Water District's proportion of the net OPEB liability was determined using the Water District's actual contributions for the year ended June 30, 2019. This method is expected to be reflective of the Water District's long-term contribution effort. For the year ended December 31, 2019, the Water District's proportion was 0.009390% which is equal to its proportion measured as of June 30, 2019.

For the year ended December 31, 2019, the Water District recognized OPEB expense of $5,467. On December 31, 2019, the Water District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual liability experience	$ -0-	$47,653
Effects of changes in assumptions	46,735	313
Differences between expected and actual investment experience	1,040	8,055
Changes in proportion and differences between employer contributions and proportionate share of contributions	9,168	57,558
Contributions subsequent to the measurement date + implicit subsidy	10,292	-0-
Total	$67,235	$113,579

$10,292 reported of deferred outflows of resources resulting from the Water District's contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the year ending December 31, 2019. Other amounts reported as the net effect of deferred outflows of resources and deferred inflows of resources will be recognized in OPEB expense as follows:

Year Ended December 31,	Amount
2020	$ (12,850)
2021	(12,850)
2022	(10,620)
2023	(14,864)
2024	(5,374)
Thereafter	(78)
Total	$ (56,636)

Sensitivity of the Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate – The following presents the proportionate share of the net OPEB liability calculated using the single discount rate of 5.68%, as well as what the Water District's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is 1% lower (4.68%) or 1% higher (6.68%) than the current rate:

	Discount Rate	Proportionate Share of Net OPEB Liability
1% decrease	4.68%	$211,569
Current discount rate	5.68%	$157,936
1% increase	6.68%	$113,745

Sensitivity of the Water District's Proportionate Share of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rate - The following presents the proportionate share of the net OPEB liability calculated using the current healthcare cost trend rates (see details in Actuarial Assumptions above), as well as what the proportionate share of the net OPEB liability would be if it were calculated using healthcare cost trend rates that were 1% lower or 1% higher than the current rates:

	Proportionate Share of Net OPEB Liability
1% decrease	$117,457
Current healthcare cost trend rate	$157,936
1% increase	$207,020

REQUIRED SUPPLEMENTAL INFORMATION

Big Sandy Water District
Schedule of Proportionate Share of Net Pension Liability
12/31/2019

	6/30/2019	6/30/2018	6/30/2017	6/30/2016	6/30/2015
District's proportion of the net pension liability	0.009392%	0.008719%	0.013693%	0.014360%	0.014640%
District's proportionate of the net pension liability	660,544	531,014	801,493	707,032	629,451
District's covered employee payroll	354,639	253,775	340,789	342,371	334,849
District's proportionate share of the net pension liability as a percentage of its covered employee payroll	186.26%	209.25%	235.19%	206.51%	187.98%
Plan fiduciary net position as a percentage of the total pension liability	50.45%	53.54%	53.30%	55.50%	59.97%

Big Sandy Water District
Schedule of Pension Contributions-Net Pension Liability
12/31/2019

	12/31/2019	12/31/2018	12/31/2017	12/31/2016	12/31/2015
Contractually required contribution	74,061	48,213	36,170	46,709	43,278
Contributions in relation to the contractually required contribution	74,061	48,213	36,170	46,709	43,278
Contribution deficiency	-	-	-	-	-
District's covered payroll	415,546	314,297	255,681	353,920	343,796
Contributions as a percentage of covered employee payroll	17.82%	15.34%	14.15%	13.20%	12.59%

Big Sandy Water District
Schedule of Proportionate Share of Net OPEB Liability
12/31/2018

	6/30/2019	6/30/2018	6/30/2017
District's proportion of the OPEB liability	0.009390%	0.008731%	0.013693%
District's proportionate of the OPEB liability	157,936	155,017	275,276
District's covered employee payroll	354,639	253,775	340,789
District's proportionate share of the OPEB liability as a percentage of its covered employee payroll	44.53%	61.08%	80.78%
Plan fiduciary net position as a percentage of the total pension liability	52.39%	57.62%	52.39%

Big Sandy Water District
Schedule of Pension Contributions- Net OPEB Liability
12/31/2019

	12/31/2019	12/31/2018	12/31/2017
Contractually required contribution	20,777	15,122	12,579
Contributions in relation to the contractually required contribution	20,777	15,122	12,579
Contribution deficiency	-	-	-
District's covered payroll	415,546	314,297	255,681
Contributions as a percentage of covered employee payroll	5.00%	4.81%	4.92%

Net Pension Liability

Method and assumptions used in calculations of actuarially determined contributions: The actuarially determined contribution rates are determined on a biennial basis beginning with the fiscal year ending 2018, determined as of June 30, 2017. Based on the June 30, 2017 actuarial valuation report, the actuarial methods and assumptions used to calculate these contributions rates are below:

Determined by the actuarial valuation as of	June 30, 2017
Actuarial cost method	Entry age normal
Asset valuation method	20% of the difference between market value of assets and the expected actuarial value of assets is recognized
Amortization method	Level percent of pay
Amortization period	26 years, closed
Investment return	6.25%
Inflation	2.30%
Salary increase	3.30% to 11.55%, varies by service
Mortality	RP-2000 Combined Mortality Table, projected to 2013 with Scale BB (set back 1 year for females)

Net OPEB Liability

The actuarially determined contributions rates effective for fiscal year ending 2018 that are documented in the schedule, Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Trend Rate, are calculated as of June 30, 2017. Based on the June 30, 2017 actuarial valuation report, the actuarial methods and assumptions used to calculate these contributions are below:

Determined by the actuarial valuation as of	June 30, 2017
Actuarial cost method	Entry age normal
Asset valuation method	20% of the difference between market value of assets and the expected actuarial value of assets is recognized
Amortization method	Level percent of pay
Amortization period	26 years, closed
Payroll growth rate	2.00%
Investment return	6.25%
Inflation	2.30%
Salary increase	3.30% to 11.55%, varies by service
Mortality	RP-2000 Combined Mortality Table, projected to 2013 with Scale BB (set back 1 year for females)
Healthcare Trend Rates	
Pre-65	Initial trend starting at 7.25% on January 01, 2019 and gradually decreasing to an ultimate trend rate to 4.05% over a period of 13 years.
Post-65	Initial trend starting at 5.10% on January 01, 2019 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 11 years.
Phase-in Provision	Board certified rate is phased into the actuarially determined rate in accordance with HB 362 enacted in 2018

SUPPLEMENTAL INFORMATION

JOHN T. LANE and ASSOCIATES, LLC
Certified Public Accountants
219 Young Lane, Suite 2
Mt. Sterling, Kentucky 40353
(859) 498-9915
www.thelanecpa.com

Member:
American Institute of CPA's
Kentucky Society of CPA's

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Board of Commissioners
Big Sandy Water District
Catlettsburg, Kentucky

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, the financial statements of the business-type activities of the Big Sandy Water District as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise Big Sandy Water District 's basic financial statements and have issued our report thereon dated June 11, 2020**.**

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Big Sandy Water District's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of Big Sandy Water District's internal control. Accordingly, we do not express an opinion on the effectiveness of Big Sandy Water District's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Big Sandy Water District's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards.*

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

John T. Lane & Associates, LLC
Mount Sterling, Kentucky
June 11, 2020

Big Sandy Water District
COMPARATIVE STATEMENT OF REVENUES AND EXPENSES
for the years ended December 31, 2019 and 2018

	2019	2018
Revenues		
User fees	$ 2,459,585	$ 2,541,195
Other water revenue	31,523	28,349
Total Revenues	2,491,108	2,569,544
Total Operating Expenses	2,987,198	2,665,679
Operating Income (Loss)	(496,090)	(96,135)
Nonoperating Revenues (Expenses)		
Tap fees	42,785	32,175
Grants	-	3,084
Interest income	9,064	2,806
Other nonoperating revenues	11,305	5,035
Interest expense	(139,024)	(140,200)
Net Nonoperating Revenues (Expenses)	(75,870)	(97,100)
Net Income (Loss)	$ (571,960)	$ (193,235)