NORTH SHELBY WATER COMPANY

BASIC FINANCIAL STATEMENTS,
SUPPLEMENTARY INFORMATION,
AND INDEPENDENT AUDITOR'S REPORTS

At December 31, 2019 and 2018

NORTH SHELBY WATER COMPANY
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SUPPLEMENTARY INFORMATION,
AND INDEPENDENT AUDITOR'S REPORTS

Years Ended December 31, 2019 and 2018

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RAISOR, ZAPP & WOODS, PSC
Certified Public Accountants

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of the
North Shelby Water Company
Bagdad, Kentucky 40003

Report on the Financial Statements

We have audited the accompanying financial statements of North Shelby Water Company as of and for the years ended December 31, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the North Shelby Water Company'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 an opinion 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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the North Shelby Water Company, as of December 31, 2019 and 2018, and the respective changes in financial position and cash flows thereof for the years 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 required supplementary information listed in the Table of Contents on pages 30 through 33 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.

Management has omitted the management's discussion and analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing 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. Our opinion on the basic financial statements is not affected by this missing information.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 19, 2020, on our consideration of the North Shelby Water Company'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 solely 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 the effectiveness of the North Shelby Water Company's 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 North Shelby Water Company's internal control over financial reporting and compliance.

Raisor, Zapp & Woods, PSC

RAISOR, ZAPP & WOODS, PSC
Certified Public Accountants
Carrollton, Kentucky

June 26, 2020

NORTH SHELBY WATER COMPANY
STATEMENT OF NET POSITION
December 31, 2019 and 2018

	2019	2018
ASSETS		
Current Assets:		
Cash	$ 3,282,460	$ 2,749,004
Accounts Receivable (Net)	355,630	251,421
Other Receivables	27,952	59,218
Inventory	171,927	156,205
Prepaid Expenses	33,595	54,435
Total Current Assets	$ 3,871,564	$ 3,270,283
Noncurrent Assets:		
Restricted Assets:		
Cash, Including Time Deposits	$ 1,184,777	$ 2,032,169
Capital Assets (Net)	17,280,944	17,002,691
Total Noncurrent Assets	$ 18,465,721	$ 19,034,860
Total Assets	$ 22,337,285	$ 22,305,143
DEFERRED OUTFLOWS OF RESOURCES		
Attributable to Employee Pension Plan	$ 259,070	$ 237,483
Attributable to OPEB Plan	116,202	77,422
Total Deferred Outflows of Resources	$ 375,272	$ 314,905
LIABILITIES		
Current Liabilities:		
Accounts Payable	$ 209,496	$ 194,121
Accounts Payable - Construction	-	270,676
Retainage Payable - Construction	-	81,353
Funds Held for Future Lines	-	692,438
Accrued Compensated Absences	10,902	9,962
Accrued Employee Benefits	9,043	7,704
Accrued Payroll Taxes/Employee Withholding	8,044	7,064
Utility Tax Payable	9,432	6,823
Sales Tax Payable	4,254	312
Current Liabilities Payable from Restricted Assets:		
Accrued Interest Payable - Customer Deposits	5,258	5,251
Accrued Interest Payable - Notes Payable	56,268	66,054
Notes Payable	172,590	168,609
Total Current Liabilities	$ 485,287	$ 1,510,367
Noncurrent Liabilities:		
Notes Payable	$ 7,863,322	$ 7,806,541
Net Pension Liability	1,312,647	1,104,599
Net OPEB Liaiblity	313,836	322,001
Noncurrent Liabilities Payable from Restricted Assets:		
Customer Deposits Payable	297,330	296,135
Total Noncurrent Liabilities	$ 9,787,135	$ 9,529,276
Total Liabilities	$ 10,272,422	$ 11,039,643
DEFERRED INFLOWS OF RESOURCES		
Attributable to Employee Pension Plan	$ 63,686	$ 101,622
Attributable to OPEB Plan	119,080	70,054
Total Deferred Inflows of Resources	$ 182,766	$ 171,676
NET POSITION		
Net Investment in Capital Assets	$ 9,245,032	$ 8,675,512
Restricted for Capital Projects	142,987	1,041,898
Restricted for Debt Service	688,192	628,082
Unrestricted	2,181,158	1,063,237
Total Net Position	$ 12,257,369	$ 11,408,729

See accompanying notes to the basic financial statements.

NORTH SHELBY WATER COMPANY
STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND NET POSITION
For the Years Ended December 31, 2019 and 2018

	2019	2018
Operating Revenues:		
Charges for Services:		
Water Charges (Net of Estimated Bad Debts)	$ 3,274,552	$ 2,967,492
Total Charges for Services	$ 3,274,552	$ 2,967,492
Other Charges and Miscellaneous:		
Forfeited Discounts & Service Charges	$ 81,379	$ 69,620
Building Rental Income	30,000	30,000
Equipment Rental Income	49,660	45,427
Contractual Services	139,876	134,226
Miscellaneous	25,148	16,310
Total Other Charges and Miscellaneous	$ 326,063	$ 295,583
Total Operating Revenues	$ 3,600,615	$ 3,263,075
Operating Expenses:		
Accounting and Collecting Labor	$ 315,180	$ 311,241
Commissioner Fees	37,800	37,400
Contractual Service	111,993	90,420
Employee Benefits	175,546	151,057
Employee Benefits - OPEB Expense	28,548	38,915
Employee Retirement Expense	230,598	172,959
Insurance	56,665	50,068
Maintenance of Mains	113,154	88,039
Miscellaneous	19,070	21,905
Office Supplies and Expense	81,750	84,353
Operating Labor	72,974	72,200
Other Interest Expense	5,857	5,822
Payroll Taxes	38,575	37,379
Professional Services	46,608	42,368
Purchased Water	1,191,319	1,068,534
Purchased Power	71,629	67,807
Regulatory Fees	6,396	6,152
Transportation Expense	36,509	36,799
Utilities	24,289	23,812
Depreciation Expense	651,609	602,180
Total Operating Expenses	$ 3,316,069	$ 3,009,410
Operating Income (Loss)	$ 284,546	$ 253,665
Nonoperating Revenue (Expense):		
Investment Income	$ 35,756	$ 6,782
Interest Expense	(237,888)	(201,562)
Gain (Loss) on Disposition of Fixed Assets	(37,753)	3,560
Total Nonoperating Revenues (Expense)	$ (239,885)	$ (191,220)
Income (Loss) Before Contributions	$ 44,661	$ 62,445
Capital Contributions	803,979	308,387
Change in Net Position	$ 848,640	$ 370,832
Net Position - Beginning of Year	11,408,729	11,037,897
Net Position - End of Year	$ 12,257,369	$ 11,408,729

NORTH SHELBY WATER COMPANY
STATEMENT OF CASH FLOWS
For the Years Ended December 31, 2019 and 2018

	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from Customers	$ 3,535,418	$ 3,242,338
Payments to Suppliers	(2,036,664)	(1,836,015)
Payments to Employees	(448,561)	(439,018)
Other Receipts (Payments)	(4,870)	(2,752)
Net Cash Provided (Used) by Operating Activities	$ 1,045,323	$ 964,553
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Capital Contributions	$ 111,541	$ 1,000,825
Purchases of Capital Assets	(1,323,508)	(1,789,538)
Proceeds from Rural Development Note	227,590	1,588,720
Proceeds Sale of Capital Assets	3,864	3,560
Principal Paid on Capital Debt	(166,828)	(147,476)
Interest Paid on Capital Debt (Including Capitalized Interest)	(247,674)	(216,711)
Net Cash Provided (Used) by Capital and Related Financing Activities	$ (1,395,015)	$ 439,380
CASH FLOWS FROM INVESTING ACTIVITIES		
Net Cash Received (Invested) in Certificates of Deposits	$ (4,896)	$ (2,657)
Interest Received	35,756	6,782
Net Cash Provided (Used) by Investing Activities	$ 30,860	$ 4,125
Net Increase (Decrease) in Cash and Cash Equivalents	$ (318,832)	$ 1,408,058
Balances-Beginning of the Year	4,454,089	3,046,031
Balances-End of the Year	$ 4,135,257	$ 4,454,089

	Balances Per December 31, 2019 Statement of Net Position	Balances Per December 31, 2019 Statement of Cash Flows
Unrestricted Cash	$ 3,282,460	$ 3,282,460
Restricted Cash	852,797	852,797
Restricted Certificates of Deposit	331,980	-
Total Cash and Cash Equivalents, End of Year	$ 4,467,237	$ 4,135,257

	Balances Per December 31, 2018 Statement of Net Position	Balances Per December 31, 2018 Statement of Cash Flows
Unrestricted Cash	$ 2,749,004	$ 2,749,004
Restricted Cash	1,705,085	1,705,085
Restricted Certificates of Deposit	327,084	-
Total Cash and Cash Equivalents, End of Year	$ 4,781,173	$ 4,454,089

(Continued)

NORTH SHELBY WATER COMPANY
STATEMENT OF CASH FLOWS
For the Years Ended December 31, 2019 and 2018

	2019	2018
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES		
Operating Income (Loss)	$ 284,546	$ 253,665
Adjustments to Reconcile Operating Income to Net Cash Provided (Used) by Operating Activities:		
Cash Flows Reported in Other Categories:		
Depreciation Expense	651,609	602,180
Pension & OPEB Expense	150,606	118,399
Change in Assets and Liabilities:		
Receivables, Net	(104,209)	4,145
Other Receivables	31,266	(34,213)
Inventories	(15,722)	(20,404)
Prepaid Expenses	20,840	(11,586)
Accounts Payable	15,375	37,949
Accrued Expenses	9,817	5,620
Customer Meter Deposits Payable	1,195	8,798
Net Cash Provided by Operating Activities	$ 1,045,323	$ 964,553

SCHEDULE OF NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES

North Shelby Water Company had $0 and $352,029 outstanding construction accounts payable and retainage payable related to capital projects in process at December 31, 2019 and 2018, respectively.

NOTE 1 – DESCRIPTION OF ENTITY AND SIGNIFICANT ACCOUNTING POLICIES

The North Shelby Water Company is a rural water company serving customers in Franklin, Henry, Oldham and Shelby Counties, Kentucky, and is regulated by the Public Service Commission of the Commonwealth of Kentucky. The Water Company was formed as a 501(c)12 nonprofit organization in August 1972. Eight directors are elected from the members to manage the affairs of the corporation.

In evaluating how to define North Shelby Water Company for financial reporting purposes, management has considered all potential component units. The decision to include a potential component unit in the reporting entity was made by applying the criteria set forth in GAAP. The basic -- but not the only -- criterion for including a potential component unit within the reporting entity is the governing body's ability to exercise oversight responsibility. The most significant manifestation of this ability is financial interdependency. Other manifestations of the ability to exercise oversight responsibility include, but are not limited to, the selection of governing authority, the designation of management, the ability to significantly influence operations and accountability for fiscal matters. The other criterion used to evaluate potential component units for inclusion or exclusion from the reporting entity is the existence of special financing relationships, regardless of whether the Water Company is able to exercise oversight responsibilities. Based upon the application of these criteria, the Water Company has no component units.

A summary of the Water Company's significant accounting policies follows:

Basis of presentation and accounting: As stated in Kentucky Revised Statutes (KRS) 278.012, "any water association formed for the purpose of furnishing water services to the general public pursuant to KRS Chapter 273 is deemed to be and shall be a public utility and shall be subject to the jurisdiction of the Public Service Commission." In KRS 278.220, it is outlined that the Public Service Commission may establish a system of accounts to be kept by the utilities subject to its jurisdiction, and may prescribe the manner in which such accounts shall be kept. The financial statements of the Water Company are prepared in accordance with generally accepted accounting principles (GAAP). The Water Company applies all relevant Governmental Accounting Standards Board (GASB) pronouncements.

All activities of the Water Company are accounted for within a single proprietary (enterprise) fund. Proprietary funds are used to account for operations that are (a) financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the cost (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.

Proprietary funds utilize the accrual basis of accounting. Under the accrual basis of accounting, revenues are recognized when earned and expenses are recorded when the liability is incurred or economic asset used.

The accounting and financial reporting treatment applied to the Water Company is determined by its measurement focus. The transactions of the Water Company are accounted for on a flow of economic resources measurement focus. The accounting objectives of this measurement focus are the determination of operating income, changes in net position (or cost recovery), financial position, and cash flows. With this measurement focus, all assets and all liabilities associated with the operations are included on the statement of net position. Net position (i.e., total assets plus deferred outflows of resources net of total liabilities and deferred inflows of resources) are segregated into net investment in capital assets, restricted; and unrestricted components.

Revenues and expenses: Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the Water Company. Operating revenues consist primarily of charges for services. Non-operating revenues and expenses consist of those revenues and expenses that are related to financing and investing types of activities and result from nonexchange transactions or ancillary activities. The Water Company adheres to the use restrictions established by note agreements when expenses are incurred for which both restricted and unrestricted net position is available. The Water Company has no policy defining which resources (restricted or unrestricted) to use first. Restricted amounts are considered to have been spent when an expense is incurred for the purpose of such classification.

NOTE 1 – DESCRIPTION OF ENTITY AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Property and equipment: Property and equipment purchased or constructed is stated at cost. Interest related to costs, and major improvements, renewals and replacements is capitalized as a cost of the project. Costs associated with hook-up fees are capitalized as meters, installations, and services. Depreciation is computed on the straight-line basis over the estimated useful lives of the related assets. The range of estimated useful lives by type of asset is as follows:

- Buildings & Improvements	10-30 years
- Distribution System	5-50 years
- Machinery & Equipment	3-30 years

Inventory: Inventories are stated at cost based on first in – first out.

Compensated Absences: See Note 15 for the Water Company's policy on vacation and sick pay.

Pension: For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Commonwealth of Kentucky's County Employees' Retirement System (CERS), and additions to/deductions from CERS's fiduciary net position have been determined on the same basis as they are reported by CERS.

Post Employment Benefits Other Than Pensions: For purposes of measuring the net liability, deferred outflows of resources and deferred inflows of resources related to OPEB and OPEB expense, information about the fiduciary net position of the Commonwealth of Kentucky's County Employees' Retirement System (CERS), and additions to/deductions from CERS's fiduciary net position have been determined on the same basis as they are reported by CERS.

Deferred Outflows of Resources and Deferred Inflows of Resources: Deferred outflows of resources and deferred inflows of resources are not assets or liabilities; revenues or expenses. Rather, they represent resources or the use of resources related to future periods.

Income Taxes: The corporation is a nonprofit organization and is exempt from income taxes under Section 501(c)12 of the Internal Revenue Code.

Contributed Capital: Under the Governmental Accounting Standards Board's (GASB) Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*, the Water Company recognizes capital contributions as revenues in the statement of revenues, expenses and changes in fund net position. Tap-on fees of $61,914 and $75,825 were received by the Water Company for the years ended December 31, 2019 and 2018. Customer contributions of $742,065 and $232,562 were received by the Water Company for the years ended December 31, 2019 and 2018, respectively, for hydrants and line extensions.

Net position: Net position comprises the various net earnings from operating and non-operating revenues, expenses, and contributions of capital. Net position is classified in the following three components: net investment in capital assets, restricted, and unrestricted net position. Net investment in capital assets consists of all capital assets, net of accumulated depreciation and reduced by outstanding debt that is attributable to the acquisition, construction and improvement of those assets; debt related to unspent proceeds or other restricted cash and investments is excluded from the determination. Restricted net position consists of net position for which constraints are placed thereon by external parties, such as lenders, grantors, contributors, laws, regulations and enabling legislation, including self-imposed legal mandates. Unrestricted net position consists of all net position not included in the above categories.

Estimates: The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Statement of Cash Flows: For the purpose of the Statement of Cash Flows, North Shelby Water Company considers all highly liquid investments (including restricted assets) with a maturity of three months or less when purchased to be cash equivalents.

NOTE 2 – DEBT RESTRICTIONS AND COVENANTS

The Debt Service Account was established with the original RECD note payable, and is to be continued to be maintained as long as any of the notes are outstanding. Under the loan agreement which established this account, it was provided that a minimum balance be maintained in this account as security to the creditor. In order to attain the minimum balance, a monthly transfer must be made in the sum equal to at least 1/12 of the annual installment next becoming due.

Transfers sufficient to meet the total obligation outstanding on all notes were made during the year ended December 31, 2019 and December 31, 2018.

Under the various loan agreements between North Shelby Water Company and Rural Development, a depreciation account was to be established to provide funds for extraordinary repairs and extensions to the system, and to make up any deficiency in the Debt Service Account.

A funded short lived asset account is required under the letter of conditions establishing funding for the 2012, 2013, 2014, and 2015 Rural Development Notes. A short lived asset account must be funded at the beginning of the next calendar year following the completion and operational startup of the asset. This account may be used as needed to replace and add short lived assets in the Company's water system.

	Depreciation Account			Short Lived Asset Account
	Monthly Requirement	Accumulated Balance at December 31, 2019	Maximum Required Balance	Monthly Requirement
1971 and 1972 Notes	$ 741	$ 88,920	$ 88,920	$ -
1979 Note	113	13,560	13,560	-
1993 Note	185	22,200	22,200	-
1998 Note	135	16,200	16,200	-
2000 Note	260	31,200	31,200	-
2012 Note	515	37,080	61,800	1,667
2013 Note	840	40,320	100,800	3,335
2014 Note	1,345	32,280	161,000	3,333
2015 Note	875	*	105,000	*
		$ 281,760	$ 600,680	$ 8,335

*Funding of the depreciation account and short lived asset account for the 2015 note is not required until January, 2020. Monthly requirements will be $875/month for the depreciation account and $4,153/month for the short lived asset account at that time. The monthly requirements, required accumulated balances, and maximum required balances for each note are as follows:

The Depreciation Account is to be maintained as long as any of the above notes are outstanding. Sufficient funds were maintained in the depreciation accounts for the years ended December 31, 2019 and 2018. A separate short lived asset account has not been created as of December 31, 2019.

NOTE 3 – CASH AND INVESTMENTS

North Shelby Water Company invests in obligations of the United States and its agencies and instrumentalities through sources including national and state banks chartered in Kentucky, obligations and contracts for future delivery backed by the full faith of the United States or its Agency, certificates of deposit and interest bearing accounts in institutions insured by the Federal Depository Insurance Corporation and other investments described therein.

Custodial credit risk for deposits is the risk that in the event of a bank failure, the Company's deposits may not be returned to it. As of December 31, 2019, and 2018, $4,383,741 and $758,994, respectively, of the Company's deposits were covered by federal depository insurance and $81,980 and $4,028,961 were collateralized by securities held by the pledging financial institution's agent or trust department in the Company's name. As of December 31, 2019 and 2018, all of the Company's deposits were collateralized by securities and therefore not exposed to custodial risk.

NOTE 3 – CASH AND INVESTMENTS (Continued)

At December 31, 2019 and 2018, the Water Company's deposits were as follows:

December 31, 2019

Type of Deposits	Total Bank Balance	Total Carrying Value
Demand Deposits	$ 5,007	$ 6,023
Time and Savings	4,460,714	4,460,714
Total Deposits	$ 4,465,721	$ 4,466,737

December 31, 2018

Type of Deposits	Total Bank Balance	Total Carrying Value
Demand Deposits	$ 4,093,819	$ 4,086,537
Time and Savings	694,136	694,136
Total Deposits	$ 4,787,955	$ 4,780,673

Reconciliation to Statement of Net Position:

	December 31, 2019	December 31, 2018
Unrestricted Cash,	$ 3,282,460	$ 2,749,004
Restricted Cash, Including Time Deposits	1,184,777	2,032,169
Less Cash on Hand	(500)	(500)
	$ 4,466,737	$ 4,780,673

NOTE 4 – RESTRICTED ASSETS

Restricted cash and time deposits consist of the following:

	December 31, 2019	December 31, 2018
Debt Service Accounts	$ 235,025	$ 215,836
Depreciation Accounts	509,435	478,299
Construction Accounts	142,987	1,041,899
Customer Deposits	297,330	296,135
Total	$ 1,184,777	$ 2,032,169

NOTE 5 – CUSTOMER ACCOUNTS RECEIVABLE

Customer Accounts Receivable has been netted with an Allowance for Bad Debts of $26,670 and $22,277 at December 31, 2019 and 2018, respectively. The amount provided for bad debts represents the portion of the total amounts for which collection is unlikely, based on historical collection data.

Estimated unbilled water service revenue of $215,845 and $184,534 is included in accounts receivable at December 31, 2019 and 2018, respectively.

NOTE 6 – OTHER RECEIVABLES

Other receivables at December 31, 2019 and 2018, respectively, included $27,952 and $59,218 receivable for the joint operations contract between North Shelby Water Company and U.S. 60 Water District of Shelby and Franklin Counties, respectively. See Note 17 for details.

NOTE 7 – CAPITAL ASSETS

Capital asset activity for the years ended December 31, 2019 and 2018, was as follows:

	Balance at January 1, 2019	Additions	Disposals	Balance at December 31, 2019
Land & Land Rights	$ 142,226	$ 8,195	$ -	$ 150,421
Structures & Improvements	735,149	12,359	-	747,508
Distribution System	20,036,269	2,826,128	(160,041)	22,702,356
Machinery & Equipment	3,101,257	75,246	(194,046)	2,982,457
Construction in Process	1,983,132	825,719	(2,808,851)	-
Totals at Historical Cost	$ 25,998,033	$ 3,747,647	$ (3,162,938)	$ 26,582,742
Less: Accumulated Depreciation				
Structures & Improvements	$ (150,614)	$ (56,326)	$ -	$ (206,940)
Distribution System	(7,206,317)	(437,149)	151,107	(7,492,359)
Machinery & Equipment	(1,638,411)	(158,134)	194,046	(1,602,499)
Total Accumulated Depreciation	$ (8,995,342)	$ (651,609)	$ 345,153	$ (9,301,798)
Capital Assets, Net	$ 17,002,691	$ 3,096,038	$ (2,817,785)	$ 17,280,944

	Balance at January 1, 2018	Additions	Disposals	Balance at December 31, 2018
Land & Land Rights	$ 142,226	$ -	$ -	$ 142,226
Structures & Improvements	735,149	-	-	735,149
Distribution System	19,932,483	117,078	(13,292)	20,036,269
Machinery & Equipment	3,046,630	71,306	(16,679)	3,101,257
Construction in Process	8,195	1,974,937	-	1,983,132
Totals at Historical Cost	$ 23,864,683	$ 2,163,321	$ (29,971)	$ 25,998,033
Less: Accumulated Depreciation				
Structures & Improvements	$ (137,259)	$ (13,355)	$ -	$ (150,614)
Distribution System	(6,821,270)	(398,339)	13,292	(7,206,317)
Machinery & Equipment	(1,464,604)	(190,486)	16,679	(1,638,411)
Total Accumulated Depreciation	$ (8,423,133)	$ (602,180)	$ 29,971	$ (8,995,342)
Capital Assets, Net	$ 15,441,550	$ 1,561,141	$ -	$ 17,002,691

Included under the Water Company's capital assets at December 31, 2019 and 2018, were $1,269,721 and $1,422,669 of fully depreciated assets, respectively. Land and land rights, and construction in process are capital assets not being depreciated.

Depreciation expense aggregated $651,609 and $602,180 in 2019 and 2018, respectively.

NOTE 8 – CUSTOMER DEPOSITS

Customer deposits are collected upon installation of water service. This amount is to be refunded to the customer upon discontinuation of service (after the customer's bill has been paid in full). Records are maintained which detail the accrued interest on each customer's deposit based on the current annual rate. Interest accrued is refunded to the customer or credited to the customer's bill on an annual basis. At December 31, 2019 and 2018, accrued interest on customer deposits was $5,258 and $5,251, respectively.

North Shelby Water Company has not maintained a separate bank account specifically for cash collected and disbursed relating to customer deposits.

NOTE 9 – LONG TERM DEBT

As of December 31,2019 and 2018, the long-term debt payable consisted of the following:

Notes Payable:

	December 31, 2019		December 31, 2018	
1979 RECD note, original loan amount of $230,000, secured by water revenues. Interest is charged 5.00% per annum. Final maturity is July, 2019.	$	7,179	$	19,750
1993 RECD note, original loan amount of $300,600, secured by water revenues. Interest is charged 5.625% per annum. Final maturity is April, 2033.		180,329		188,755
1998 RECD note, original loan amount of $288,500, secured by water revenues. Interest is charged 4.5% per annum. Final maturity is October, 2038.		200,646		207,181
2000 RECD note, original loan amount of $568,000, secured by water revenues. Interest is charged 4.375% per annum. Final maturity is May, 2040.		418,991		431,061
2012 RECD note, original loan amount of $1,069,758, secured by water revenues. Interest is charged at 3.5% per annum. Final maturity is November, 2052.		997,107		1,013,002
2013 RECD note, original loan amount of $2,100,000, secured by water revenues. Interest is charged at 3.125% per annum. Final maturity is September, 2054.		2,016,704		2,039,940
2014 RECD note, approved for $2,755,000, secured by water revenues. Interest is charged at 2.375% per annum. Final maturity is October, 2056. Total draws through December 31, 2019 are $2,550,477.		2,500,161		2,550,477
2015 RECD note, approved for $1,816,309, secured by water revenues. Interest is charged at 2.375% per annum. Final maturity is October, 2057. Total draws through December 31, 2019 are $1,752,573.		1,714,795		1,524,984
Total Notes Payable	$	8,035,912	$	7,975,150
Current Portion	$	172,590	$	168,609
Noncurrent Portion		7,863,322		7,806,541
Total Notes Payable	$	8,035,912	$	7,975,150

Accrued Compensated Absences:

All Classified as Current	$	10,902	$	9,962

If there is any default in the payment of the principal of or interest on any of the bonds, then upon the filing of suit by any holder of said bonds, any court having jurisdiction of the action may appoint a receiver to administer the system on behalf of the Water Company, with power to charge and collect rates sufficient to provide for the payment of current expenses, and to apply the revenues in conformity with the bond resolution and the provisions of the statute laws of Kentucky.

NOTE 9 – LONG TERM DEBT (Continued)

Changes in Long-term Debt

The following is a summary of changes in long-term debt for the years ended December 31, 2019 and 2018.

December 31, 2019

	Balance at January 1, 2019	Additions	Repayments	Balance at December 31, 2019	Current Portion
Notes Payable	$ 7,975,150	$ 227,590	$ (166,828)	$ 8,035,912	$ 172,590
Accrued Compensated Absences	9,962	27,400	(26,460)	10,902	10,902
Total Long-Term Debt	$ 7,985,112	$ 254,990	$ (193,288)	$ 8,046,814	$ 183,492

December 31, 2018

	Balance at January 1, 2018	Additions	Repayments	Balance at December 31, 2018	Current Portion
Notes Payable	$ 6,533,906	$ 1,588,720	$ (147,476)	$ 7,975,150	$ 168,609
Accrued Compensated Absences	9,435	26,377	(25,850)	9,962	9,962
Total Long-Term Debt	$ 6,543,341	$ 1,615,097	$ (173,326)	$ 7,985,112	$ 178,571

The annual requirements for all notes payable outstanding at December 31, 2019 are as follows:

Due	Principal	Interest	Total
2020	$ 172,590	$ 235,889	$ 408,479
2021	170,456	230,486	400,942
2022	175,669	225,274	400,943
2023	181,054	219,888	400,942
2024	186,620	214,322	400,942
2025-2029	1,023,382	981,329	2,004,711
2030-2034	1,172,713	811,082	1,983,795
2035-2039	1,264,818	627,135	1,891,953
2040-2044	1,261,970	443,152	1,705,122
2045-2049	1,410,911	264,009	1,674,920
2050-2054	991,962	72,828	1,064,790
2055-2057	23,767	743	24,510
	$ 8,035,912	$ 4,326,137	$ 12,362,049

The annual requirements for all notes payable outstanding at December 31, 2018 are as follows:

Due	Principal	Interest	Total
2019	$ 168,609	$ 236,227	$ 404,836
2020	153,372	230,723	384,095
2021	158,238	225,857	384,095
2022	163,169	220,927	384,096
2023	168,269	215,826	384,095
2024-2028	923,935	996,540	1,920,475
2029-2033	1,077,639	839,967	1,917,606
2034-2038	1,157,376	666,038	1,823,414
2039-2043	1,161,220	490,595	1,651,815
2044-2048	1,265,273	325,412	1,590,685
2049-2053	1,257,246	140,308	1,397,554
2054-2057	320,804	16,799	337,603
	$ 7,975,150	$ 4,605,219	$ 12,580,369

NOTE 10 – INTEREST EXPENSE

Interest expense incurred for the years ended December 31, 2019 and 2018 was $243,745 and $229,138, respectively. $21,754 of construction related interest expense was capitalized in 2018, North Shelby Water Company implemented GASB 89 *Accounting for Interest Cost Incurred before the End of a Construction Period*, in 2019. No construction related interest expense was capitalized in 2019.

NOTE 11 – FUND EQUITY – RESTRICTED NET POSITION

	December 31, 2019	December 31, 2018
Restricted for Capital Projects:		
Monies Restricted for Construction	$ 142,987	$ 1,041,898
Total Restricted for Capital Projects	$ 142,987	$ 1,041,898
Restricted for Debt Service:		
RECD Notes Payable		
Cash	$ 744,460	$ 694,136
Less: Accrued Interest Payable	(56,268)	(66,054)
Total Restricted for Debt Service	$ 688,192	$ 628,082

Unrestricted net position was reduced by $150,606 and $118,399 for the years ended December 31, 2019 and 2018, respectively, as a result of the transactions recorded by the Company to reflect its proportionate share of the County Employees Retirement System's Net Pension Liability and Net OPEB Liability. The accounts affected were as follows:

	2019	2018
Increase (Decrease) in Deferred Outflows of Resources	$ 60,367	$ (113,313)
(Increase) Decrease in Deferred Inflows of Resources	(11,090)	(47,416)
(Increase) Decrease in Net Pension Liability	(208,048)	(11,201)
(Increase) Decrease in Net OPEB Liability	8,165	53,531
Net Decrease in Unrestricted Net Position	$ (150,606)	$ (118,399)

NOTE 12 – BAD DEBT EXPENSE

Water revenue charges have been netted with an estimated bad debt expense of $4,393 and $6,843 at December 31, 2019 and 2018, respectively.

NOTE 13 – INSURANCE AND RELATED ACTIVITIES

The Water Company is exposed to various forms of loss of assets associated with the risks of fire, personal liability, theft, vehicular accidents, errors and omissions, fiduciary responsibility, etc. and is also subject to the risks associated with employee injury. Each of these risks is covered through the purchase of commercial insurance.

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN)

The North Shelby Water Company participates in the Commonwealth of Kentucky's County Employees' Retirement System (CERS) for non-hazardous employees.

Under the provision of Kentucky Revised Statute ("KRS") Section 61.645, the Board of Trustees of the Kentucky Retirement System administers CERS and has the authority to establish and amend benefit provisions. Under the provisions of Kentucky Revised Statute ("KRS") Section 61.701, the KRS Board administers the Kentucky Retirement Systems Insurance Fund. The statutes provide for an insurance fund to provide group hospital and medical benefits to retirees drawing a benefit from the pension funds administered by KRS, which includes CERS.

The Kentucky Retirement System issues a publicly available financial report that includes financial statements and required supplementary information for CERS's pension and insurance funds. Additionally, the Kentucky Retirement System issues publicly available financial reports that include the Schedules of Employer Allocations and Pension amounts, and the Schedules of Employer Allocations of Post Employment Benefits Other Than Pension amounts, by employer. The most recent financial reports may be obtained on-line as follows:

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

- Kentucky Retirement Systems Audit Report – 2019
  https://apps.auditor.ky.gov/Public/Audit_Reports/Archive/2018KRSfinancialaudit.pdf
- KRS Schedules of Employer Allocations & Pension Amount by Employer for the Fiscal Year Ended June 30, 2019
  https://kyret.ky.gov/Employers/GASB/Current%20Audited%20Reports/2019%20GASB%2068%20Proportionate%20Share%20Audit%20Report%20with%20Schedules.pdf
- KRS Schedules of Employer Allocations & OPEB Amounts by Employer for the Fiscal Year Ended June 30, 2019
  https://kyret.ky.gov/Employers/GASB/Current%20Audited%20Reports/2019%20GASB%2075%20Proportionate%20Share%20Audit%20Report%20with%20Schedules.pdf
- Kentucky CERS GASB 68 Accounting & Financial Reporting for Pensions as of June 30, 2019 (Actuarial Report)
  https://kyret.ky.gov/Employers/GASB/GASB%2068%20and%2075%20Actuary%20Reports/2019%20GASB%2068%20Actuary%20Report%20CERS.pdf
- Kentucky CERS GASB 75 Accounting & Financial Reporting for Postemployment Benefits Other Than Pensions as of June 30, 2019 (Actuarial Report)
  https://kyret.ky.gov/Employers/GASB/GASB%2068%20and%2075%20Actuary%20Reports/2019%20GASB%2075%20Actuary%20Report%20CERS.pdf

Basis of Accounting – CERS's financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which contributions are due. Employer contributions to the plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with terms of the plan. Premium payments are recognized when due and payable in accordance with the terms of the plan. Administrative and investment expenses are recognized when incurred.

Method Used to Value Investments/Investment Objectives – Investments of the plan are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Short-term investments are reported at cost, which approximates fair value. Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the dividend date. Gain (loss) on investments includes KRS' gains and losses on investments bought and sold as well as held during the fiscal year. Investment returns are recorded net of investment fees.

The investment objectives of the portfolios are to produce results that exceed the stated goals over both short-term and long-term periods.

- Shorter-Term (5 years and less): The returns of the particular asset classes of the managed funds of the Systems, measured on an annual basis, should exceed the return achieved by a policy benchmark portfolio composed of comparable unmanaged market indices.
- Medium-Term (5 to 30 years): The returns of the particular asset classes of the managed funds of the Systems, measured on a rolling year basis should exceed the returns achieved by a policy benchmark portfolio composed of comparable unmanaged market indices and perform above the median of an appropriate peer universe, if there is one.
- Longer-Term: The total assets of the Systems should achieve a return of 6.25% for CERS pension and insurance plans. This is measured over 30 to 40 years which exceeds the actuarially required rate of return while also exceeding the return achieved by its total fund benchmark.

Target Asset Allocation – Pension and Insurance as of June 30, 2019 and 2018:

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.

The long-term expected real rate of return was 3.89% and 6.09% at June 30, 2019 and 2018.

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

	Target Asset Allocation		Long-Term Expected Rate of Return	
	2019	2018	2019	2018
Combined Equity	52.50%	35.00%	2.60% - 4.80%	4.50% - 7.25%
Combined Fixed Income	13.50%	24.00%	1.35%	3.75% - 8.50%
Private Equity	10.00%	10.00%	6.65%	6.50%
Absolute Return	-	10.00%	-	5.00%
Real Return	15.00%	10.00%	4.10%	7.00%
Real Estate	5.00%	5.00%	4.85%	9.00%
Global Bonds	-	4.00%	-	3.00%
Opportunistic	3.00%	-	2.97%	-
Cash	1.00%	2.00%	0.20%	1.50%
	100.00%	100.00%	3.89%	6.09%

- The investment portfolio for the Pension Funds reported a net return of 5.83% for the fiscal year 2019 compared to 8.57% return for fiscal year 2018. The investment portfolio for the Insurance Fund reported a net return of 5.67% for the fiscal year, which was lower than fiscal year 2018 net return of 9.05%. The investment return was slightly below the 6.25% assumed rate of return.

PENSION PLAN DESCRIPTION – CERS is a cost-sharing multiple-employer defined benefit pension plan that covers all regular full-time members employed in non-hazardous and hazardous positions of each participating county, city, and school board, and any additional eligible local agencies electing to participate in CERS along with hazardous duty positions of each participating county, city, or school board, any additional eligible local agencies electing to participate in CERS. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Prior to July 1, 2009, COLAs were provided annually equal to the percentage increase in the annual average of the consumer price index 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 1.5%. No COLA has been granted since July 1, 2011. The North Shelby Water Company participates in the non-hazardous plan.

Benefits provided – CERS provides retirement, health insurance, death and disability benefits to Plan employees and beneficiaries. Employees are vested in the plan after five years' service. For retirement purposes, employees are grouped into three tiers, based on hire date:

Tier 1	Participation date	Before September 1, 2008
	Unreduced retirement	27 years service or 65 years old
	Reduced retirement	At least 5 years service and 55 years old or 25 years of service and any age
Tier 2	Participation date	September 1, 2008 – December 31, 2013
	Unreduced retirement	At least 5 years service and 65 years old or age 57+ and sum of service years plus age equal 87
	Reduced retirement	At least 10 years service and 60 years old
Tier 3	Participation date	After December 31, 2013
	Unreduced retirement	At least 5 years service and 65 years old or age 57+ and sum of service years plus age equal 87
	Reduced retirement	Not available

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

***Benefits provided* (Continued)**

Retirement is based on a factor of the number of years' service and hire date multiplied by the average of the highest five years' earnings for Tier 1 and Tier 2. Reduced benefits are based on factors of both of these components. Participating employees become eligible to receive the health insurance benefit after earning a minimum months of service credit (120 months for Tier 2 and 180 months for Tier 3). Death benefits are provided for both death after retirement and death prior to retirement. Death benefits after retirement are $5,000 in lump sum. Five years' service is required for death benefits prior to retirement and the employee must have suffered a duty-related death. The decedent's beneficiary will receive the higher of the normal death benefit and $10,000 plus 25% of the decedent's monthly final rate of pay and any dependent child will receive 10% of the decedent's monthly final rate of pay up to 40% for all dependent children. Five years' service is required for nonservice-related disability benefits.

During the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. Benefits paid to the spouses of deceased members have been increased from 25% of the member's final rate of pay to 75% of the member's average pay. If the member does not have a surviving spouse, benefits paid to surviving dependent children have been increased from 10% of the member's final pay rate to 50% of average pay for one child, 65% of average pay for two children, or 75% of average pay for three children.

There were no changes in benefit terms during the year ended June 30, 2019.

Contributions - Participating employers are required to contribute at an actuarially determined rate. Per Kentucky Revised Statute Section 78.545(33), normal contribution and past service contribution rates shall be determined by the Board on the basis of an annual valuation last preceding the 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. For the fiscal years ended June 30, 2019 and 2018 participating non-hazardous employers contributed 21.48% and 19.18%, respectively, of each employee's creditable compensation. The actuarially determined rates set by the Board for the fiscal years ended June 30, 2019 and 2018 were 28.05% and 19.18%, respectively. Administrative costs of KRS are financed through employer contributions and investment earnings.

House Bill 362 passed during the 2018 legislative session caps CERS employer contribution rate increases up to 12% per year over the prior fiscal year for the period of July 1, 2018 to June 30, 2028.

Non-hazardous employer contributions for the year ended June 30, 2019, of 21.48% were allocated 16.22% to CERS's pension fund and 5.26% to CERS's (health insurance). Non-hazardous employer contributions for the year ended June 30, 2018, of 19.18% were allocated 14.48% to CERS's pension fund and 4.70% to CERS' OPEB (health insurance) fund, respectively.

For the fiscal years ended June 30, 2019 and 2018, plan members who began participating prior to September 1, 2008, were required to contribute 5% non-hazardous, of their annual creditable compensation. These members were classified in the Tier 1 structure of benefits. Plan members who began participating on, or after, September 1, 2008 and before January 1, 2014, were required to contribute a total of 6% non-hazardous, of their annual creditable compensation. These members were classified in the Tier 2 structure of benefits. Five percent of the contribution was deposited to the member's account while the 1% was 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 105 KAR 1:420E). 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, for plan members who began participating on, or after, September 1, 2008, the 1% contribution to the 401(h) account is non-refundable and is forfeited.

Plan members who began participating on, or after, January 1, 2014, were required to contribute to the Cash Balance Plan. These members were classified in the Tier 3 structure of benefits. 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. Non-hazardous members contribute 5%, of their annual creditable compensation and an additional 1% to the health insurance fund 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

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

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) employer pay credit. The employer pay credit represents a portion of the employer contribution.

Interest is paid into the Tier 3 member's account. The account currently earns 4% interest credit on the member's account balance as of June 30th of the previous year. The member's account may be credited with additional interest if the system's five-year Geometric Average Net Investment Return (GANIR) exceeded 4%. If the member was actively employed and participating in the fiscal year, and if the systems' GANIR for the previous five years exceeds 4%, then the member's account will be credited with 75% of the amount of the returns over 4% on the account balance as of June 30th of the previous year (Upside Sharing Interest). It is possible that one system in KRS may get an Upside Sharing Interest, while another may not.

The 1% of pay member contributions for Tier 1 and Tier 2 members to a 401(h) subaccount are considered an OPEB asset.

Methods and Assumptions Used in Calculation of Actuarially Determined Contributions (Pension Plan)

The Board adopted new actuarial assumptions after the June 30, 2018, valuation. These assumptions are documented in the report titled *Kentucky Retirement Systems 2018 Actuarial Experience Study for the Period Ended June 30, 2018.*

Per the Kentucky Retirement System's 2019 Comprehensive Annual Financial Report, the actuarially determined contribution rates effective for fiscal year ending 2019 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 contribution rates are as follows:

Item	CERS June 30, 2019 Non-Hazardous	CERS June 30, 2018 Non-Hazardous
Determined by the Actuarial Valuation as of:	June 30, 2017	June 30, 2016
Actuarial Cost Method:	Entry Age Normal	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.	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.
Amortization Method:	Level Percent of Pay	Level Percent of Pay
Amortization Period:	26 Years, Closed	27 Years, Closed
Investment Return:	6.25%	7.50%
Inflation:	2.30%	3.25%
Salary Increases:	3.30% to 11.55%, varies by service	3.05%
Payroll Growth:	2.00%	4.00%, average
Mortality:	RP-2000 Combined Mortality Table, projected to 2013 with Scale BB (set back 1 year for females)	RP-2000 Combined Mortality Table, projected to 2013 with Scale BB (set back 1 year for females)

Actuarial Methods and Assumptions Used in Calculation of the Actuarially Determined Total Pension Liability and Net Pension Liability

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.

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

Actuarial Methods and Assumptions Used in Calculation of the Actuarially Determined Total Pension Liability and Net Pension Liability **(Continued)**

For financial reporting, the actuarial valuation as of June 30, 2018 was performed by Gabriel Roeder Smith (GRS). The total pension liability, net pension liability, and sensitivity information as of June 30, 2018 were based on an actuarial valuation date of June 30, 2017. The total pension liability was rolled-forward from the valuation date (June 30, 2017) to the plan's fiscal year ending June 30, 2018, using generally accepted actuarial principles.

The Board of Trustees adopted new actuarial assumptions since 2018. The actuarial assumptions are:

	June 30, 2019	June 30, 2018
Inflation	2.30%	2.30%
Salary Increases	3.30% - 10.30% varies by service	3.05%
Investment Rate of Return	6.25%	6.25%

The mortality table(s) used in the determination of the total pension liability as of June 30, 2019 were as follows. The mortality table used for active members was a Pub-2010 General Mortality table for the Non-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.

During the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. Benefits paid to the spouses of deceased members have been increased from 25% of the member's final rate of pay to 75% of the member's average pay. If the member does not have a surviving spouse, benefits paid to surviving dependent children have been increased from 10% of the member's final pay rate to 50% of average pay for one child, 65% of average pay for two children, or 75% of average pay for three children.

The mortality tables(s) used in the determination the total pension liability at June 30, 2018 were as follows. The mortality table used for active members was RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females). For healthy retired members and beneficiaries, the mortality table used was the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) was used for the period after disability retirement.

Discount Rate

The projection of cash flows used to determine the discount rate of 6.25% for CERS Non-hazardous for the year ended June 30, 2019 assumes that the fund received the required employer contributions each future year, as determined by the current funding policy established in statute, as last amended by House Bill 362 (passed in 2018).

The projection of cash flows used to determine the discount rate of 6.25% for CERS Non-hazardous for the year ended June 30, 2018 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 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 KRS Comprehensive Annual Financial Report.

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the County Employee Retirement System Pension

At December 31, 2019, and 2018 the Company reported a liability of $1,312,647 and $1,104,599, respectively for its proportionate share of the net pension liability. The net pension liability for CERS was measured as of June 30, 2019, and 2018 and was based on the actual liability of the employees and former employees relative to the total liability of the system as determined by an actuarial valuation as of those dates. The Company's proportion of the net pension liability was based on a projection of the Company's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. At June 30, 2019, and 2018 the Company's proportion was 0.018664 and 0.018137 percent, respectively, which is an increase of 0.000527% and a decrease of 0.000543% for the years ended June 30, 2019 and June 30, 2018, respectively.

The Company's total payroll for the calendar year ended December 31, 2019 was $488,640. Contributions to the CERS were based on $475,018 (covered payroll). The total employer pension contributions for the calendar year ended December 31, 2019 were $81,560.

The Company's total payroll for the calendar year ended December 31, 2018 was $478,435. Contributions to the CERS were based on $457,698 (covered payroll). The total employer pension contributions for the calendar year ended December 31, 2018 were $70,327.

All contributions were made as required.

The Company's contribution for the County Employees' Retirement System's year(s) ended June 30, 2019, and 2018 was 0.018664 and 0.018137 percent, respectively, of the System's total contribution requirements for all employers.

For the years ended December 31, 2019, and December 31, 2018, the Company recognized pension expense of $230,598 and $172,959, respectively. At December 31, 2019 and 2018 the Company reported deferred outflows of resources and deferred inflows of resources related to CERS pensions from the following sources:

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	$ 33,516	$ 5,546	$ 36,029	$ 16,169
Change in Assumptions	132,855	-	107,951	-
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	22,372	11,782	2,797	20,844
Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	25,198	46,358	51,365	64,609
Company Contributions Made Subsequent to the NPL Measurement Date	45,129	-	39,341	-
Total	$ 259,070	$ 63,686	$ 237,483	$ 101,622

$45,129 and $39,341 reported as deferred outflows of resources related to pensions arising from Company contributions made subsequent to the measurement date will be recognized as a reduction in the net pension liability in the years ended December 31, 2020 and 2019, respectively. Amounts reported as deferred inflows and outflows of resources due to the net difference between projected and actual investment earnings on pension plan investments will be netted and amortized over five years and recognized in pension expense. Amounts reported as deferred outflows of resources due to the difference between expected and actual experience, change of assumptions, and changes in proportion and differences between employer contributions and proportionate share of contributions will be amortized and recognized in pension expense over the expected remaining service lives of all employees. Total amortization to be recognized in pension expense is presented below as follows:

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the County Employee Retirement System Pension **(Continued)**

Year Ended December 31, 2019:		Increase (Decrease) to Pension Expense
	2020	$ 92,858
	2021	38,876
	2022	17,019
	2023	1,502
		$ 150,255

Year Ended December 31, 2018:		Increase (Decrease) to Pension Expense
	2019	$ 82,723
	2020	36,022
	2021	(16,298)
	2022	(5,927)
		$ 96,520

Sensitivity of the Company's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following table presents the net pension liability of CERS [as reported in its publicly available financial statements for the years ended June 30, 2019 and 2018], calculated using the discount rates of 6.25% and 6.25% for the years ended June 30, 2019 and 2018, respectively, as well as what CERS' net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the approved rate:

As of June 30, 2019	1% Decrease [5.25%]	Current Discount [6.25%]	1% Increase [7.25%]
Net Pension Liability	$ 8,796,343,903	$ 7,033,044,552	$ 5,563,351,626
Company's Proportionate Share	1,641,750	1,312,647	1,038,344

As of June 30, 2018	1% Decrease [5.25%]	Current Discount [6.25%]	1% Increase [7.25%]
Net Pension Liability	$ 7,667,062,949	$ 6,090,304,793	$ 4,769,257,576
Company's Proportionate Share	1,390,576	1,104,599	865,001

The discount rate determination does not use a municipal bond rate.

Payable to the Pension Plan

At December 31, 2019 and 2018, the Company reported a payable of $8,326 and $7,225 for the outstanding amount of contributions required tor the years then ended. The amount represents the employee withholding and employer match for the last month of the years then ended.

OPEB PLAN

Insurance (OPEB) Plan Description – The Kentucky Retirement Systems' Insurance Fund (Insurance Fund) was established to provide hospital and medical insurance for eligible members receiving benefits from KERS, CERS, and SPRS. The eligible non-Medicare retirees are covered by the Department of Employee Insurance (DEI) plans. KRS submits the premium payments to DEI. The Board contracts with Humana to provide health care benefits to the eligible Medicare

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

Insurance (OPEB) Plan Description (Continued)

retirees through a Medicare Advantage Plan. The Insurance Fund pays a prescribed contribution for whole or partial payment of required premiums to purchase hospital and medical insurance. A portion of the insurance premiums are withheld from benefit payments for members including those of the CERS Non-Hazardous system.

Contributions

As a result of House Bill 290 (2004 Kentucky General Assembly), medical insurance benefits are calculated differently for members who began participating on, or after, July 1, 2003. Once members reach a minimum vesting period of 10 years, non-hazardous employees whose participation began on, or after, July 1, 2003, earn $10 per month for insurance benefits at retirement for every year of earned service without regard to a maximum dollar amount. This dollar amount is subject to adjustment annually, which is currently 1.5%, based upon Kentucky Revised Statutes. This benefit is not protected under the inviolable contract provisions of Kentucky Revised Statute 78.852. The Kentucky General Assembly reserves the right to suspend or reduce this benefit if, in its judgment, the welfare of the Commonwealth so demands.

The amount of benefit paid by the Insurance Fund is based on years of service. For members participating prior to July 1, 2003, years of service and respective percentages of the maximum benefit are as follows:

Portion Paid by Insurance Fund

Years of Service	Paid by Insurance Fund (%)
20+ years	100.00%
15-19+ years	75.00%
10-14+ years	50.00%
4-9+ years	25.00%
Less than 4 years	0.00%

For the fiscal years ended June 30, 2019 and 2018, plan members who began on, or after, September 1, 2008 (classified in the Tier 2 or Tier 3 structure of benefits) were required to contribute 1% of their annual creditable compensation 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 105 KAR 1:420E), which is considered an OPEB asset.

If a member terminates employment the 1% contribution to the 401(h) account is non-refundable and is forfeited.

Participating employers are required to contribute at an actuarially determined rate as described previously.

Methods and Assumptions Used in Calculation of Actuarially Determined Contributions (OPEB)

Per the GASB Statement No. 75, *Report for Postemployment Benefits Other than Pensions* for the Kentucky County Employees Retirement System prepared as of June 30, 2019 and 2018, the actuarially determined contribution rates effective for fiscal year ending June 30, 2019 and 2018 are calculated based on the actuarial methods and assumptions as follows:

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

***Methods and Assumptions Used in Calculation of Actuarially Determined Contributions (OPEB)* (Continued)**

Item	CERS June 30, 2019 Non-Hazardous	CERS June 30, 2018 Non-Hazardous
Determined by the Actuarial Valuation as of:	June 30, 2017	June 30, 2016
Experience Study	July 1, 2008 - June 30, 2013	July 1, 2008 - June 30, 2013
Actuarial Cost Method:	Entry Age Normal	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.	20% of the difference between the market value of assets and the expected actuarial value of assets is recognized.
Amortization Method:	Level Percent of Pay	Level Percent of Pay
Remaining Amortization Period:	26 Years, Closed	27 Years, Closed
Payroll Growth:	2.00%	4.00%, average
Investment Return:	6.25%	7.50%
Inflation:	2.30%	3.25%
Salary Increases:	3.30% - 11.55% varies by service	4.00%, average
Mortality:	The mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females). For healthy retired members and beneficiaries, the mortality table used is the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) is used for the period after disability retirement.	The mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females). For healthy retired members and beneficiaries, the mortality table used is the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) is used for the period after disability retirement.
Healthcare Trend Rates:		
Pre-65	Initial trend starting at 7.25% at January 1, 2019 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years.	Initial trend starting at 7.50% and gradually decreasing to an ultimate trend rate of 5.00% over a period of 5 years.
Post-65	Initial trend starting at 5.10% at January 1, 2019 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 11 years.	Initial trend starting at 5.50% and gradually decreasing to an ultimate trend rate of 5.0% over a period of 2 years.
Phase-In Provision	Board Certified Rate is phased into the actuarially determined rate in accordance with HB 362 enacted in 2018.	-

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

Actuarial Methods and Assumptions to Determine the Total OPEB Liability and Net OPEB Liability

For financial reporting, the actuarial valuation as of June 30, 2019, was performed by Gabriel Roeder Smith (GRS). The total OPEB 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 OPEB 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.

For financial reporting the actuarial valuation as of June 30, 2018, was performed by Gabriel Roeder Smith (GRS). The total OPEB liability, net OPEB liability, and sensitivity information as of June 30, 2018, were based on an actuarial valuation date of June 30, 2017. The total OPEB liability was rolled-forward from the valuation date (June 30, 2017) to the plan's fiscal year ending June 30, 2018, using generally accepted actuarial principles.

During the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. The system shall now pay 100% of the insurance premium for spouses and children for all active members who die in the line of duty.

The Board of Trustees adopted new actuarial assumptions since June 30, 2018. These assumptions are documented in the report titled *Kentucky Retirement Systems 2018 Actuarial Experience Study dated June 30, 2018.*

The actuarial assumption used are:

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

***Actuarial Methods and Assumptions to Determine the Total OPEB Liability and Net OPEB Liability* (Continued)**

	CERS June 30, 2019 Non-hazardous	CERS June 30, 2018 Non-hazardous
Inflation	2.30%	2.30%
Payroll Growth Rate	2.00%	2.00%
Salary Increases	3.30% - 10.30% varies by service	3.05% average
Investment Rate of Return	6.25%	6.25%
Healthcare Trend Rates		
Pre-65	Initial trend starting at 7.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years.	Initial trend starting at 7.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years.
Post-65	Initial trend staring at 5.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.	Initial trend staring at 5.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.
Mortality		
Pre-retirement	PUB-2010 General Mortality Table, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010.	RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females).
Post-retirement (non-disabled)	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.	RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females).
Post-retirement (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 mortality improvement scale using a base year of 2010.	RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) is used for the period after disability retirement.

House Bill 1 passed during the 2019 Special Legislative Session allows certain employers in the KERS Non-hazardous plan to elect to cease participating the 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.

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

Discount Rate

The projection of cash flows used to determine the June 30, 2019 discount rate of 5.68% for CERS Non-hazardous, assumed that local employers would contribute the actuarially determined contribution rate of projected compensation over the remaining 24 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 3.13%, as reported in Fidelity Index's "20-year Municipal GO AA Index" as of June 28, 2019.

The projection of cash flows used to determine the June 30, 2018 discount rate of 5.85% for CERS Non-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, 2018.

The fully-insured premiums KRS pays for the CERS Plan 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. The liability associated with this implicit subsidy is included in the calculation of the total OPEB liability at June 30, 2018.

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 Kentucky Retirement System's CAFR.

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources related to the County Employee Retirement System Insurance Plan

At December 31, 2019 and 2018 the Company reported a liability of $313,836 and $322,001, respectively.

The Company's total payroll for the calendar year ended December 31, 2019 was $488,640 contributions were based on $475,018 (covered payroll). The total employer contributions to the Health Insurance Fund for the year ended December 31, 2019 were $26,467.

The Company's total payroll for the calendar year ended December 31, 2018 was $478,435. Contributions were based on $457,698 (covered payroll). The total employer contributions to the Health Insurance Fund for the year ended December 31, 2018 were $22,821.

All contributions were made as required.

The allocation of the employers' proportionate share of the Net OPEB Liability and OPEB expense was determined using the employers' actual contributions for the fiscal year ending June 30, 2019.

The Company's contribution for the County Employee's Retirement System's (Insurance Plan) for the years ended June 30, 2019 and 2018 was 0.018659 percent and 0.018136 percent, respectively, of the System's total contribution requirements for all employers.

The implicit employer subsidy for the non-Medicare eligible retirees for the years ended June 30, 2019 and 2018 was $5,458 and $3,843, respectively.

For the years ended December 31, 2019 and 2018, the Company recognized expense of $28,548 and $38,915, respectively. At December 31, 2019 and 2018 the Company reported deferred outflows of resources and deferred inflows of resources related to CERS OPEB from the following sources:

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources related to the County Employee Retirement System Insurance Plan **(Continued)**

	December 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference Between Expected and Actual Experience	$ -	$ 94,692	$ -	$ 37,525
Change in Assumptions	92,867	621	64,308	744
Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	6,623	7,761	-	9,605
Difference Between Projected and Actual Investment Earnings on Insurance Plan Investments	2,067	16,006	-	22,180
Company Contributions Made Subsequent to the Net OPEB Measurement Date	14,645	-	13,114	-
Total	$ 116,202	$ 119,080	$ 77,422	$ 70,054

$14,645 and $13,114 reported as deferred outflows of resources related to OPEB arising from Company contributions made subsequent to the measurement date will be recognized as a reduction in the net OPEB liability in the years ended December 31, 2020 and 2019 respectively. Amounts reported as deferred inflows and outflows of resources due to the net difference between projected and actual investment earnings on OPEB plan investments will be netted and amortized over five years and recognized in OPEB expense. Amounts reported as deferred outflows of resources and deferred inflows of resources due to the difference between expected and actual experience, change of assumptions, and changes in proportion and differences between employer contributions and proportionate share of contributions will be amortized and recognized in OPEB expense over the expected remaining service lives of all employees. Total amortization to be recognized in OPEB expense is presented below as follows:

Year Ended December 31, 2019:		Increase (Decrease) to OPEB Expense
	2020	$ (2,922)
	2021	(2,922)
	2022	1,510
	2023	(6,979)
	2024	(5,459)
	Thereafter	(751)
		$ (17,523)

Year Ended December 31, 2018:		Increase (Decrease) to OPEB Expense
	2019	$ (698)
	2020	(698)
	2021	(698)
	2022	3,610
	2023	(4,637)
	Thereafter	(2,623)
		$ (5,744)

NOTE 14 – COUNTY EMPLOYEES' RETIREMENT SYSTEM – NON-HAZARDOUS EMPLOYEES PENSION PLAN AND POST-EMPLOYMENT HEALTHCARE BENEFIT (INSURANCE PLAN) (Continued)

Payable to the OPEB Health Insurance Plan

At December 31, 2019 and 2018, the Company reported a payable of $2,702 and $2,344, respectively for the outstanding amount of contributions required for the years then ended. This amount represents the employee withholding and employer match for the last month of the years then ended.

Sensitivity of the Water Company's Proportionate Share of the Net Other Post Employment Benefit (OPEB) Liability to Changes in the Discount Rate and Healthcare Trend Rate

The following table presents the net other post-employment benefit liability of CERS [as reported in its publicly available financial statements for the year ended June 30, 2019, calculated using the single discount rate of 5.68% as well as what CERS' net OPEB liability would be if it were calculated using a single discount rate that is one percentage point lower or one percentage point higher than the approved rate:

As of June 30, 2019	1% Decrease [4.68%]	Current Discount [5.68%]	1% Increase [6.68%]
Net OPEB Liability	$ 2,253,127,713	$ 1,681,954,950	$ 1,211,346,586
Company's Proportionate Share	420,411	313,836	226,025

The following table presents the net other post-employment benefit liability of CERS [as reported in its publicly available financial statements for the year ended June 30, 2019, calculated using the healthcare cost trend rate for the year ended June 30, 2019 as well as what CERS' net OPEB liability would be if it were calculated using a healthcare cost trend rate that is one percentage point lower or one percentage point higher than the approved rate:

As of June 30, 2019	1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
Net OPEB Liability	$ 1,250,878,480	$ 1,681,954,950	$ 2,204,686,275
Company's Proportionate Share	233,401	313,836	411,372

The following table presents the net other post-employment benefit liability of CERS [as reported in its publicly available financial statements for the year ended June 30, 2018, calculated using the single discount rates of 5.85% for the year ended June 30, 2018 as well as what CERS' net OPEB liability would be if it were calculated using a single discount rate that is one percentage point lower or one percentage point higher than the approved rate:

As of June 30, 2018	1% Decrease [4.85%]	Current Discount [5.85%]	1% Increase [6.85%]
Net OPEB Liability	$ 2,306,064,041	$ 1,775,480,122	$ 1,323,519,582
Company's Proportionate Share	418,228	322,001	240,033

The following table presents the net other post-employment benefit liability of CERS [as reported in its publicly available financial statements for the year ended June 30, 2018, calculated using the healthcare cost trend rate for the year ended June 30, 2018 as well as what CERS' net OPEB liability would be if it were calculated using a healthcare cost trend rate that is one percentage point lower or one percentage point higher than the approved rate:

As of June 30, 2018	1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
Net OPEB Liability	$ 1,321,862,520	$ 1,775,480,122	$ 2,310,164,647
Company's Proportionate Share	239,733	322,001	418,971

NOTE 15 – COMPENSATED ABSENCES

Vacation Days

Vacation is earned at rates varying one to twenty-four days per year depending on the length of service. A maximum of five vacation days may be carried over to the next year. At December 31, 2019, and 2018, the Water Company had accrued compensated absence liabilities of $10,902 and $9,962, respectively.

Sick Days

Sick leave accrues at the rate of twelve days per year and shall accumulate without limit. If and when the employee retires and resigns, there will be no pay for unused sick leave. At December 31, 2019, the Water Company had an unrecorded sick pay liability of $148,258. At December 31, 2018, the Water Company had an unrecorded sick pay liability of $126,899.

NOTE 16 – ECONOMIC DEPENDENCY

The Water Company purchases 100% of the water it sells from the following entities: Shelbyville Municipal Water, Frankfort Electric & Water Plant Board, and Louisville Water Company.

NOTE 17 – OPERATION AND MAINTENANCE CONTRACT

The Water Company furnishes managerial, meter reading, maintenance, meter installation, accounts receivable processing, and general office services for U.S. 60 Water District. The Company received $372,645 and $342,397 for these services for the years ended December 31, 2019 and 2018, respectively. There was a receivable due from U.S. 60 Water District in the amount of $27,952 and $59,218 at December 31, 2019 and 2018, respectively. The operation and maintenance agreement was updated in 2019.

NOTE 18 – FUNDS HELD FOR FUTURE LINES AND CONTRIBUTED CAPITAL

The Water Company collects funds from developers for their allocable cost of line extensions. The amount is calculated based on the size of the line and cost of construction. The Water Company held $692,438 for future lines at December 31, 2018. No amounts were held for future lines at December 31, 2019.

NOTE 19 – COMMITMENTS, CONTINGENCIES AND SUBSEQUENT EVENTS

The East West Connector Project was financed by USDA. Rural Development Notes 91-14 and 91-15 have $204,523 and $171,691 of available funding remaining, respectively. The Water Company plans to use the remaining funds from Notes 91-14 and 91-15 to rehab a storage tank.

During the 2018 Kentucky Legislature Session, House Bill 362 passed with caps CERS employer contribution rate increases up to 12% per year over the prior fiscal year for the period July 1, 2018 to June 30, 2028. During the 2020 regular session, Senate Bill 249 froze the CERS employer rate phase-in for one year and House Bill 352 included provisions to keep the CERS rates the same as fiscal year 2020, effective July 1, 2020. The CERS Employer rate beginning July 1, 2020 and 2019 have been set at 24.06% and 24.06% respectively.

NOTE 20 – SUBSEQUENT EVENTS

Management has considered subsequent events through the date of this report June 26, 2020, for disclosure. No events were identified that would have impacted the financial statements for the year ended December 31, 2019. However, in March, 2020 significant steps were taken by federal and state governments to limit the effect of the COVID-19 virus. The immediate and long-term impact that such decisions may have on the financial position of the Water Company is unknown at this time.

NORTH SHELBY WATER COMPANY
SCHEDULE OF THE WATER COMPANY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
COUNTY EMPLOYEES RETIREMENT SYSTEM
Years Ended December 31

	2019	2018	2017	2016	2015	2014
Water Company's proportion of the net pension liability (asset) %	0.018664%	0.018370%	0.018680%	0.018834%	0.01822%	0.017846%
Water Company's proportionate share of the net pension liability (a	$ 1,312,647	$ 1,104,599	$ 1,093,398	$ 927,293	$ 783,379	$579,000
Water Company's covered payroll (calendar year)	$ 475,018	$ 457,698	$ 458,377	$ 448,684	$ 433,851	$426,930
Water Company's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	276.34%	241.34%	238.54%	206.67%	180.56%	135.62%
Plan fiduciary net position as a percentage of the total pension liability	50.45%	53.54%	53.3%	55.5%	59.97%	62.60%

Calculations of the Company's proportion of the net pension liability (%) and proportionate share of the net pension liability ($) are based on reports of the Kentucky Retirement Systems', County Employees Retirement Systems' Schedule of Employer Allocations and Pension Amounts by Employer for the fiscal years ended June 30, shown.

Company payroll is reported for its' covered calendar years ending December 31, 2014 through 2019.

GASB 68 requires the Company to present the above information for 10 years. The information will be expanded annually until a full 10-year trend is compiled.

During the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. Benefits paid to the spouses of deceased members have been increased from 25% of the member's final rate of pay to 75% of the member's average pay. If the member does not have a surviving spouse, benefits paid to surviving dependent children have been increased from 10% of the member's final pay rate to 50% of average pay for one child, 65% of average pay for two children, or 75% of average pay for three children.

The Board of Trustees adopted new actuarial assumptions since June 30, 2018, as documented in the report titled *Kentucky Retirement Systems 2018 Actuarial Experience Study for the period ending June 30, 2018.* Actuarial Methods and Assumptions for Determining Net Pension Liability:

	2019	2018	2017	2016	2015	2014
Inflation	2.30%	2.30%	2.30%	3.25%	3.25%	3.50%
Salary Increases	3.30%-10.30%	3.05%	3.05%	4.00%	4.00%	4.50%
Investment Rate of Return	6.25%	6.25%	6.25%	7.50%	7.50%	7.75%

The mortality table(s) used in the determination of the total pension liability as of June 30, 2019 were as follows. The mortality table used for active members was a Pub-2010 General Mortality table, for the Non-Hazadous 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 retireed 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.

In previous years the mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females). For healthy retired members and beneficiaries, the mortality table used is the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) is used for the period after disability retirement.

The assumed rates of retirement, withdrawal, and disability were based on an actuarial valuation performed as of June 30, 2018.

NORTH SHELBY WATER COMPANY
SCHEDULE OF THE WATER COMPANY'S CONTRIBUTIONS (PENSION)
COUNTY EMPLOYEES RETIREMENT SYSTEM

For Years Ended December 31

	2019	2018	2017	2016	2015
Contractually required contributions	$ 81,560	$ 70,327	$ 64,825	$ 59,977	$ 56,189
Contributions in relation to the contractually required contributions	81,560	70,327	64,825	59,977	56,189
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Water Company's covered payroll (calendar year)	$ 475,018	$ 457,698	$ 458,377	$ 448,684	$ 433,851
Contributions as a percentage of covered payroll	17.17%	15.37%	14.14%	13.37%	12.95%

The Water Company's contributions above include only contributions to the County Employees Retirement System Pension Fund. GASB 68 requires the Water Company to present the above information for the CERS pension for 10 years. The information will be expanded annually until a full 10-year trend is compiled.

NORTH SHELBY WATER COMPANY

SCHEDULE OF THE WATER COMPANY'S PROPORTIONATE SHARE OF THE NET OPEB LIABILITY

COUNTY EMPLOYEES RETIREMENT SYSTEM

Years Ended December 31

	2019	2018	2017
Water Company's proportion of the net OPEB liability (asset) %	0.018659%	0.018137%	0.018680%
Water Company's proportionate share of the net OPEB liability (asset)	$ 313,836	$ 322,001	$ 375,532
Water Company's covered payroll (Calendar Year)	$ 475,018	$ 457,698	$ 458,377
Water Company's proportionate share of the net OPEB liability (asset) as a percentage of its covered payroll	66.07%	70.35%	81.93%
Plan fiduciary net position as a percentage of the total OPEB liability	60.44%	57.62%	52.4%

Calculations of the Company's proportion of the net OPEB liability (%) and proportionate share of the net OPEB liability ($) are based on reports of the Kentucky Retirement Systems', County Employees Retirement Systems' Schedule of Employer Allocations and OPEB Amounts by Employer for the fiscal years ended June 30, shown.

GASB 75 requires the Company to present the above information for 10 years. The information will be expanded annually until a full 10-year trend is compiled.

Water Company covered payroll is reported for its calendar year.

The Board of Trustees adopted new actuarial assumptions since June 30, 2018, as documented in the report titled, *Kentucky Retirement Systems 2018 Actuarial Experience Study for the period ending June 30, 2018.*

During the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. The system shall now pay 100% of the insurance premium for spouses and children of all active members who die in the line of duty.

Actuarial Methods and Assumptions for Determining Net OPEB Liability:

	2019	2018	2017
Payroll Growth Rate	2.0%	2.0%	2.0%
Salary Increases	3.30%-10.30% varies by service	3.05% Average	3.05% Average
Investment Rate of Return	6.25%	6.25%	6.25%
Inflation	2.3%	2.3%	2.3%
Healthcare Trend Rates: Pre-65	Initial trend at 7.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years.	Initial trend at 7.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years.	Initial trend at 7.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years.
Healthcare Trend Rates: Post-65	Initial trend starting at 5.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.	Initial trend starting at 5.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.	Initial trend starting at 5.00% at January 1, 2020, and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.
Mortality: Pre-Retirement	PUB-2010 General Mortality Table, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010.	RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females).	RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females).
Post-Retirement	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.	RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females).	RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set-back for one year for females).
Post-Retirement (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 mortality improvement scale using a base year of 2010 is used for the period after disability.	RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) is used for the period after disability retirement.	RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set-back four years for males) is used for the period after disability retirement.

NORTH SHELBY WATER COMPANY
SCHEDULE OF THE WATER COMPANY'S CONTRIBUTIONS (OPEB)
COUNTY EMPLOYEES RETIREMENT SYSTEM

Years Ended December 31

	2019	2018	2017	2016	2015
Contractually (Employer) required contributions	$ 26,467	$ 22,821	$ 21,980	$ 20,335	$ 19,051
Contributions in relation to the contractually required contributions	26,467	22,821	21,980	20,335	19,051
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Water Company's covered payroll	$ 475,018	$ 457,698	$ 458,377	$ 448,684	$ 433,851
Contributions as a percentage of covered payroll	5.57%	4.99%	4.80%	4.53%	4.39%

The Water Company's contributions above include only the contributions to the County Employees Retirement System Insurance Fund.

GASB 75 requires the Water Company to present the above information for the CERS OPEB Plan for 10 years. The information will be expanded annually until a full 10-year trend is compiled.

RAISOR, ZAPP & WOODS, PSC

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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*

To the Board of Directors of the
North Shelby Water Company
Bagdad, Kentucky 40003

We have audited 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, the financial statements of North Shelby Water Company as of and for the year ended December 31, 2019, and the related notes to the financial statements, which collectively comprise North Shelby Water Company's basic financial statements, and have issued our report thereon dated June 26, 2020.

INTERNAL CONTROL OVER FINANCIAL REPORTING

In planning and performing our audit of the financial statements, we considered North Shelby Water Company'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 opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of North Shelby Water Company's internal control. Accordingly, we do not express an opinion on the effectiveness of North Shelby Water Company'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 and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did identify certain deficiencies in internal control, described in the accompanying schedule of findings and responses as Items 2019-001 and 2019-002 that we consider to be material weaknesses.

COMPLIANCE AND OTHER MATTERS

As part of obtaining reasonable assurance about whether North Shelby Water Company's financial statements are free from 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.*

NORTH SHELBY WATER COMPANY'S RESPONSE TO FINDINGS

North Shelby Water Company's response to the findings identified in our audit is described in the accompanying schedule of findings and responses. North Shelby Water Company's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

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.

Raisor, Zapp & Woods, PSC

RAISOR, ZAPP & WOODS P.S.C
Certified Public Accountants
Carrollton, Kentucky

June 26, 2020

NORTH SHELBY WATER COMPANY
SCHEDULE OF FINDINGS AND RESPONSES
For the Year Ended December 31, 2019

A. SUMMARY OF AUDIT RESULTS

1. The auditor's report expresses an unmodified opinion on whether the financial statements of North Shelby Water Company were prepared in accordance with GAAP.

2. Two deficiencies in internal control disclosed during the audit of the financial statements are reported in the 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*. Items 2019-001 and 2019-002 were reported as material weaknesses.

3. No instances of noncompliance material to the financial statements of North Shelby Water Company, which would be required to be reported in accordance with *Government Auditing Standards*, were disclosed during the audit.

B. FINDINGS - FINANCIAL STATEMENTS AUDIT

GOVERNMENT AUDITING STANDARDS

DEFICIENCIES IN INTERNAL CONTROL

2019-001 SIZE OF ENTITY, CROSS-TRAINING, CHECKING PROCEDURES AND DOCUMENTATION

CRITERIA:

Internal controls should be in place to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and allow timely preparation of financial data consistent with management assertions.

CONDITION:

Due to the size of the entity, cross-training and checking procedures are not in place for certain administrative functions. This condition was also cited as a material weakness in the schedule of findings and questioned costs for the year ended December 31, 2018 as Item 2018-001.

CAUSE:

Responsibilities associated with individual positions limit the availability of individuals to rotate duties and implement checking procedures.

EFFECT:

These limitations may affect the ability to timely record, process, summarize and report financial data. Debt service and depreciation transfers were not reviewed timely. Short-lived asset accounts have not been set up. Additional interest was incurred by the Water Company due to an oversight in the drafting of loan payments. Construction invoices were paid months after requesting the loan draw for such payments. A capital contribution deposit was delayed.

RECOMMENDATION:

Management should strive to provide cross-training for administrative staff, implement checking processes and increase review procedures. Management should periodically review invoice and expenditures processes and documentation to help employees maintain good practices. Periodic reviews of debt service requirements should also occur. Construction projects should be reviewed periodically to determine appropriate contributions have been received and contractor payments have been made timely.

B. FINDINGS - FINANCIAL STATEMENTS AUDIT (Continued)

GOVERNMENT AUDITING STANDARDS (Continued)

DEFICIENCIES IN INTERNAL CONTROL (Continued)

2019-001 SIZE OF ENTITY, CROSS-TRAINING, CHECKING PROCEDURES AND DOCUMENTATION (Continued)

VIEWS OF RESPONSIBLE OFFICIALS:

We concur with the recommendation. Efforts have been made to cross train employees and improve transaction documentation. The Company will continue its efforts to improve training and review associated procedures.

2019-002 FAILURE TO PREPARE COMPLETE SET OF FINANCIAL STATEMENTS INCLUDING REQUIRED NOTE DISCLOSURES

CRITERIA:

Internal controls should be in place to provide management with reasonable, but not absolute, assurance that financial statements and required notes are prepared in accordance with generally accepted accounting principles.

CONDITION:

Company financial statements, including the required disclosures, are prepared as part of the annual audit. This condition was also cited as a material weakness in the schedule of findings and questioned costs for the year ended December 31, 2018 as Item 2018-002.

CAUSE:

The draft accrual basis financial statements and disclosures are prepared during the audit process. The entries are entered into the Company's general ledger/financial reports.

EFFECT:

Management engaged auditor assistance to prepare the draft of the financial statements, including the related notes to the financial statements. Management reviewed, approved, and accepted responsibility for the financial statements prior to their issuance.

RECOMMENDATION:

Company management should continue to enhance its knowledge of reporting requirements in providing oversight of this service.

VIEWS OF RESPONSIBLE OFFICIALS:

The outsourcing of this service is a result of management's cost benefit decision to use others' accounting expertise rather than incur internal resource costs. We concur with the recommendation and will continue to improve our overall accounting knowledge in performing our oversight responsibilities.

COMPLIANCE

None