FREDERICK WATER

FINANCIAL REPORT

June 30, 2019

FREDERICK WATER

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FREDERICK WATER

DIRECTORY OF PRINCIPAL OFFICIALS
June 30, 2019

DIRECTORS

Gary Oates – Chairman
J. Stanley Crockett – Vice Chairman
Martha Dilg – Secretary/Treasurer

Tom Simon Christopher Collins

EXECUTIVE DIRECTOR

Eric Lawrence, AICP

INDEPENDENT AUDITORS

Brown, Edwards & Company, L.L.P.

ATTORNEYS

McGuireWoods LLP

FINANCIAL SECTION

The Financial Section contains Management's Discussion and Analysis and the Basic Financial Statements

BROWNEDWARDS
certified public accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Frederick Water
Winchester, Virginia

Report on the Financial Statements

We have audited the accompanying financial statements of Frederick Water (the "Authority"), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Authority'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, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and *Specifications for Audits of Authorities, Boards and Commissions* issued by the Auditor of Public Accounts of the Commonwealth of Virginia. 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 Authority as of June 30, 2019, and the changes in financial position and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

1909 Financial Drive • Harrisonburg, VA 22801 • 540-434-6736 • Fax: 540-434-3097 • www.BEcpas.com

Other Matters

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Authority's basic financial statements. The introductory section is presented for purposes of additional analysis and is not a required part of the basic financial statements. The introductory section has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

Report on Comparative Information

We have previously audited the Authority's 2018 financial statements, and our report dated November 6, 2018, expressed an unmodified opinion on those financial statements. The 2018 financial information is provided for comparative purposes only. In our opinion, the comparative information presented herein as of and for the year ended June 30, 2018, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 10, 2019 on our consideration of the Authority'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 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 the Authority's internal control over financial reporting and compliance.

Brown, Edwards & Company, L.L.P.

CERTIFIED PUBLIC ACCOUNTANTS

Harrisonburg, Virginia
October 10, 2019

MANAGEMENT'S DISCUSSION AND ANALYSIS

Introduction

The Frederick County Sanitation Authority dba Frederick Water is a Virginia corporation created under the Virginia Water and Waste Authorities Act on August 1, 1967, for the purpose of "acquiring, constructing, operating, and maintaining (a) an integrated water supply and distribution system in Frederick County and (b) an integrated sewer system for Frederick County." Frederick Water is a public body, politic and corporate, deemed to be an instrumentality exercising public and essential governmental functions to provide for the public health and welfare.

Frederick Water is empowered: to acquire, construct, operate, and maintain water supply and distribution systems and sewer collection systems; operate wastewater treatment plants; to finance its projects through issuance of revenue bonds; and to fix and prescribe rates, fees, and charges for services rendered. Although Frederick Water was established by the Frederick County Board of Supervisors, the County exercises no oversight responsibility and has no accountability for Frederick Water's fiscal matters. Frederick Water is governed by a five-member board. Each member of the Board is appointed by the Frederick County Board of Supervisors and serves a four year term. The Board of Supervisors designates where Frederick Water can provide service within the County through the Sewer and Water Service Area (SWSA) in the County's Comprehensive Plan.

Overview of Financial Statements

This discussion and analysis is intended as an introduction to Frederick Water's basic financial statements. Frederick Water's basic financial statements are comprised of two components: (1) enterprise fund financial statements and (2) notes to the financial statements.

Enterprise fund financial statements. Since Frederick Water engages only in business-type activities, the *enterprise fund financial statements* and *notes* are prepared in a manner similar to a private-sector business. Frederick Water uses the accrual method to account for and report financial transactions. Revenues are recognized as they are earned and expenses are recognized as they are incurred, regardless of the timing of related cash receipts and disbursements. All assets, deferred outflows of resources, liabilities, and deferred inflows of resources that are measurable and probable are included in the financial statements. The full acquisition costs of all capital assets are included in the Statement of Net Position and are depreciated over their estimated useful life.

The ***statement of net position*** presents information on Frederick Water's assets, deferred outflows of resources, liabilities, and deferred inflows of resources as of June 30, 2019 and June 30, 2018, with the difference reported as *net position*. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of Frederick Water is improving or deteriorating.

The ***statement of revenues, expenses, and changes in fund net position*** presents information showing how Frederick Water's net position changed between fiscal years 2019 and 2018. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of cash flows. Thus, some of the revenues and expenses that are reported in this statement will only affect cash flows in future fiscal periods (e.g., earned but unused paid time off).

The ***statement of cash flows*** supplements the above two statements by presenting the changes in cash position as a result of Frederick Water's activities over the last two fiscal years.

Notes to the financial statements. The notes provide additional information that is essential for a full understanding of the data provided in the financial statements.

Overview of Operations

Frederick Water's operations are influenced by the area's economic growth. There were 535 new water connections during the fiscal year, representing an increase of 3.4%, bringing the number of water customers serviced to over 16,400. There were 527 new sewer connections during the fiscal year, representing an increase of 3.4%, bringing the number of sewer customers serviced to over 15,890. New connections were better than expected and indications are the economy in our area will remain strong over the next several years. Frederick Water continues its efforts to improve operations, perform infrastructure maintenance, and provide additional sources of water and wastewater treatment capacity to be prepared for future growth.

Frederick Water is utilizing mobile devices in the field for staff to have access to engineering drawings through a mobile application. The GIS staff have scanned and geo-referenced a majority of Frederick Water's paper drawings through a third-party vendor. Frederick Water continues the consolidation of its SCADA systems to a secure, easier-to-access system and are exploring ways to segment SCADA traffic to a separate network for additional security. Frederick Water currently utilizes social media platforms and its website to inform customers of service disruptions.

Financial Highlights

Frederick Water's financial position increased by $11,256,907 for the fiscal year ended June 30, 2019. The assets and deferred outflows exceeded liabilities and deferred inflows by $135,369,316. Frederick Water had $101,198,250 invested in capital assets and $34,171,066 of unrestricted net position available to meet ongoing obligations. Frederick Water's total assets and deferred outflows increased by 4.5% or $10,075,940, while total liabilities and deferred inflows decreased 1.2% or $1,180,967.

During 2019, Frederick Water recorded additional expense of $739,828 under its cost sharing arrangement for the construction of ball fields. The total expense will be offset by $657,083 of interest forgiveness currently on Frederick Water's books as Long-term interest payable to Frederick County upon completion of the ball fields. In 2018, Frederick Water recorded a $2,500,000 liability for its obligation. The current liability under a 2013 agreement with one of our water supply sources (quarry) is $2,549,695. The agreement includes a cost sharing arrangement for the construction of ball fields if mining activities result in the displacement of existing ball fields. The displacement of the ball fields occurred in 2019. Frederick Water expects to complete the ball fields by spring 2020.

During 2019, Frederick Water entered into a settlement agreement with a water supply source and wholesale customer. The agreement conveyed to Frederick Water three tracts of real property including two water supply sources (quarries) in exchange for discounted water and sewer rates in perpetuity and release from all unpaid water and wastewater charges and unpaid debt service charges incurred and not paid up to the closing date of the agreement. The non-operating revenues recorded related to the settlement agreement during 2019 were $1,839,679. Frederick Water was required to pay $50,000 as part of the agreement which has been capitalized as part of the land acquisition costs.

Financial Highlights (Continued)

Results of Operations

Frederick Water's revenues for the fiscal year ended June 30, 2019, increased 11.6% or $4,266,912 over the previous fiscal year. The largest increase was attributable to Water and Sewer Service revenue which increased 11.0% or $2,456,043 over the prior year. The increase is the result of a 3% base rate increase for water and a 35% base rate increase for sewer for residential customers and relative increases for larger meter sizes effective July 1, 2018. Non-operating revenues increased 184.5% or $1,829,762 attributable to the real estate tracts (quarries) received under the Settlement agreement with the water supply source and wholesale customer. There was also an increase in Investment Earnings of 597.5% or $1,262,882 from the prior year. Favorable market conditions contributed an increase of $902,133 due to higher fair value of our investments over the prior year. The remaining increase in Investment Earnings was attributable to higher yields and increased balances invested over the previous year. These increases were offset by a 28.6% or $1,235,541 decrease in Capital Contributions from the prior year.

Frederick Water Changes in Net Position

	2019	2018
Revenues:		
Charges for service	$ 24,689,260	$ 22,233,217
Capital contributions	3,090,080	4,325,621
Availability Fees	9,415,447	9,594,451
Other operating revenues	472,365	339,595
Investment earnings	1,474,230	211,348
Other nonoperating revenues	1,839,679	9,917
Total revenues	40,981,061	36,714,149
Expenses:		
Source of water supply	3,596,470	4,178,751
Water transmission and distribution	1,765,312	1,699,431
Wastewater collection	757,543	687,222
Wastewater treatment	3,738,090	3,307,786
Maintenance and operations	912,025	940,332
Customer accounting and collections	705,998	669,398
Engineering and planning	879,140	734,159
General and administration	2,819,251	4,198,183
Depreciation	10,920,040	10,790,997
Contractual obligation – ballfields cost sharing	739,828	2,500,000
(Gain) loss on sale of assets	(2,186)	361
Interest expense	2,857,477	3,044,273
Impairment loss	-	11,483
Other nonoperating expenses	35,166	30,786
Total expense	29,724,154	32,793,162
Increase in net position	11,256,907	3,920,987
Net position beginning of year (as restated)	124,112,409	120,191,422
Net position end of year	$ 135,369,316	$ 124,112,409

Results of Operations (Continued)

Although a settlement agreement was reached with our water supply source and wholesale customer, water and sewer services were provided to this customer during fiscal year 2019 and unpaid outstanding bills were reserved for during the fiscal year due to the uncertainty of their collectability. The impact of this reserve decreased revenues by $18,100,375 and brought the total amount reserved for this customer to $26,630,611. The settlement agreement released the customer from all unpaid water and wastewater charges and unpaid debt service charges incurred and not paid up to the closing date of the agreement.

Frederick Water's expenses for the fiscal year ended June 30, 2019, decreased 9.4% or $3,061,511 from the previous fiscal year.

Source of water supply expenses for the fiscal year ended June 30, 2019, decreased 13.9% or $582,281. The decrease is attributable to a 32% reduction in gallons of water purchased from the City of Winchester, offset by a 17% increase in the average rate paid per thousand gallons, compared to the previous year, contributing $639,385 to the decrease.

Wastewater treatment expenses for the fiscal year ended June 30, 2019, increased 13.0% or $430,304 from the prior year. The increase was primarily attributable to Purchased treatment expenses. Flow increased by 21% over the prior year contributing $142,840, BOD increased by 26% over the prior year contributing $76,012, and a 30% reduction in previously provided credits contributed $133,965 over the prior year.

General and administrative expenses for the fiscal year ended June 30, 2019, decreased 32.8% or $1,378,932 from the prior year. Legal services, incurred primarily for litigation with our water supply source and wholesale customer, decreased $1,342,954 from the prior year due to the use of mediation to arrive at a settlement agreement during the current year.

Frederick Water's single largest expense is depreciation. Depreciation accounted for 36.7 % of total operating expenses for the fiscal year ended June 30, 2019. Frederick Water owns $303 million in fixed assets that are subject to annual depreciation. Straight line depreciation is used over the life expectancy of the asset which ranges from 3 to 40 years.

Contractual obligation – ball fields cost sharing expenses for the fiscal year ended June 30, 2019, decreased $1,760,172 from the prior year. This expense represents Frederick Water's cost to construct ball fields to replace those being displaced by one of our water supply sources (quarry). Additional expense of $739,828 was recorded due to revised costs estimates to complete the ball fields.

Capital Contributions and Assets

This area of Frederick Water's operations had significant activity during fiscal year 2019.

During the fiscal year ended June 30, 2019, Frederick Water invested funds in the following:

- design and permitting for the Opequon Initiative which includes; a new water treatment plant, creek intake and well exploration,
- completed design and began construction of a Water Loop to connect the north and south ends of our water system,
- completed design and began construction of an Elevated Storage Tank and began design of a filtration plant in the Lake Frederick service area,
- completed design and began construction of the Frederick County Ball fields,
- began construction of 2nd floor office space in the Administrative Office building,
- began design of sewer line improvements to redirect flows to the Parkins Mill Wastewater Treatment plant,

Capital Contributions and Assets (Continued)

- secured several real estate parcels and easements, which includes; 2 water sources (quarries) and a potential tower site,
- routine purchases for manhole rehabilitation, meters, fire hydrant replacements, as well as equipment and vehicle replacements.

Capital contributions, representing the value of assets deeded over to Frederick Water by developers, were $3,090,080 for the fiscal year ended June 30, 2019.

Assets and Deferred Outflows of Resources

Frederick Water's total assets and deferred outflows of resources increased during the fiscal year ended June 30, 2019, 4.5% or $10,075,940.

Liabilities and Deferred Inflows of Resources

Frederick Water's total liabilities and deferred inflows of resources decreased during the fiscal year ended June 30, 2019, 1.2 % or $1,180,967. This decline is attributable to decreasing bond obligation balances as a result of scheduled principal payments.

Debt

Frederick Water had total bonded debt of $15,254,197 and obligations and leases payable of $66,378,630 as of June 30, 2019. Overall, debt decreased by $5,254,320, net of deferred amounts. No bonds were refunded or defeased during this fiscal year.

Frederick Water Net Position

	2019	2018
Current and other assets	$ 48,395,584	$ 40,640,609
Capital assets	183,713,327	181,294,219
Total assets	232,108,911	221,934,828
Deferred outflows of resources	842,061	940,203
Current liabilities	14,132,398	9,427,725
Long-term liabilities	82,725,961	88,471,920
Total liabilities	96,858,359	97,899,645
Deferred inflows of resources	723,297	862,977
Net position:		
Invested in capital assets, net of related debt	101,198,250	93,593,024
Unrestricted	34,171,066	30,519,385
Total net position	$ 135,369,316	$ 124,112,409

Requests for Information

Questions concerning any of the information provided in this report or requests for additional information should be addressed to the Executive Director at P. O. Box 1877, Winchester, Virginia 22604.

BASIC FINANCIAL STATEMENTS

FREDERICK WATER
STATEMENT OF NET POSITION
June 30, 2019
(With Comparative Amounts as of June 30, 2018)

	2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents, unrestricted (Note 2)	$ 10,641,469	$ 9,461,362
Cash and cash equivalents, restricted (Note 2)	371	206
Investments (Note 2)	32,890,940	26,783,157
Accounts receivable, net (Note 3)	4,318,451	3,881,418
Prepaid and other assets	164,856	174,621
Inventories	379,497	314,215
Total current assets	48,395,584	40,614,979
Noncurrent assets:		
Contract receivable	-	25,630
Capital assets, net (Note 4)	183,713,327	181,294,219
Total noncurrent assets	183,713,327	181,319,849
Total assets	232,108,911	221,934,828
DEFERRED OUTFLOWS OF RESOURCES		
Deferred charge on refunding	612,468	680,670
Deferred outflows related to pensions (Note 6)	166,328	221,893
Deferred outflows related to other postemployment benefits (Note 7)	63,265	37,640
Total deferred outflows of resources	842,061	940,203
LIABILITIES		
Current liabilities:		
Accounts payable and accrued expenses	3,707,112	1,004,099
Accrued interest	815,241	862,203
Unearned revenue	3,544,925	1,768,301
Current portion of compensated absences (Note 5)	478,357	533,540
Current portion of bonds, notes, and other obligations payable (Note 5)	5,586,763	5,259,582
Total current liabilities	14,132,398	9,427,725
Noncurrent liabilities:		
Customer deposits	1,362,193	1,418,323
Accrued interest (Note 5)	657,083	657,083
Compensated absences (Note 5)	183,545	133,385
Contractual obligation (Note 10)	2,549,695	2,500,000
Net pension liability (Note 6)	113,202	339,203
Net other postemployment benefit liability (Note 7)	319,461	301,643
Other long term liabilities (Note 5)	77,540,782	83,122,283
Total noncurrent liabilities	82,725,961	88,471,920
Total liabilities	96,858,359	97,899,645
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows related to pensions (Note 6)	692,761	827,451
Deferred inflows related to other postemployment benefits (Note 7)	30,536	35,526
Total deferred inflows of resources	723,297	862,977
NET POSITION		
Net investment in capital assets	101,198,250	93,593,024
Unrestricted	34,171,066	30,519,385
Total net position	$ 135,369,316	$ 124,112,409

The Notes to Financial Statements are an integral part of this statement.

Exhibit 2

FREDERICK WATER
STATEMENT OF REVENUES, EXPENSES, AND CHANGES
IN FUND NET POSITION
For the Year Ended June 30, 2019
(With Comparative Amounts for the Year Ended June 30, 2018)

	2019	2018
OPERATING REVENUES		
Charges for services:		
Water service	$ 11,590,618	$ 11,013,991
Sewer service	12,369,087	10,407,246
Contract water and sewer services	35,018	153,375
Penalties and surcharges	454,127	427,407
Connection fees	240,410	231,198
Miscellaneous	472,365	339,595
Total operating revenues	25,161,625	22,572,812
OPERATING EXPENSES		
Source of water supply (Note 8)	3,596,470	4,178,751
Water transmission and distribution	1,765,312	1,699,431
Wastewater collection	757,543	687,222
Wastewater treatment	3,738,090	3,307,786
Maintenance and operations	912,025	940,332
Customer accounting and collecting	705,998	669,398
Engineering and planning	879,140	734,159
General and administrative	2,819,251	4,198,183
Depreciation (Note 4)	10,920,040	10,790,997
Total operating expenses	26,093,869	27,206,259
Operating loss	(932,244)	(4,633,447)
NONOPERATING REVENUES (EXPENSES)		
Investment earnings	1,474,230	211,348
Availability fees	9,415,447	9,594,451
Gain on settlement agreement (Note 10)	1,839,679	-
Insurance proceeds	-	9,917
Contractual obligation expense (Note 10)	(739,828)	(2,500,000)
(Loss) gain on disposal of capital assets	2,186	(361)
Interest expense	(2,857,477)	(3,044,273)
Impairment loss	-	(11,483)
Other nonoperating expenses	(35,166)	(30,786)
Total nonoperating revenues (expenses), net	9,099,071	4,228,813
Income (loss) before capital contributions	8,166,827	(404,634)
CAPITAL CONTRIBUTIONS	3,090,080	4,325,621
Change in net position	11,256,907	3,920,987
NET POSITION AT JULY 1	124,112,409	120,191,422
NET POSITION AT JUNE 30	$ 135,369,316	$ 124,112,409

The Notes to Financial Statements are an integral part of this statement.

Exhibit 3

FREDERICK WATER
STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2019
(With Comparative Amounts for the Year Ended June 30, 2018)

	2019	2018
OPERATING ACTIVITIES		
Receipts from customers	$ 24,694,092	$ 21,891,171
Payments to suppliers	(12,350,947)	(13,427,092)
Payments to employees	(3,400,836)	(3,462,688)
Net cash provided by operating activities	8,942,309	5,001,391
CAPITAL AND RELATED FINANCING ACTIVITIES		
Acquisition and construction of capital assets and water rights	(6,232,619)	(3,127,683)
Availability fees	11,192,071	8,708,087
Proceeds from sale of capital assets	8,621	2,286
Principal payments on long-term liabilites	(5,088,646)	(4,807,438)
Interest payments on long-term obligations	(3,007,911)	(3,171,744)
Insurance proceeds	-	9,917
Net cash used in capital and related financing activities	(3,128,484)	(2,386,575)
INVESTING ACTIVITIES		
Proceeds from investments	6,664,482	724,706
Purchases of investments	(12,190,000)	(1,842,813)
Investment earnings	891,965	531,216
Net cash used in investing activities	(4,633,553)	(586,891)
Net increase in cash and cash equivalents	1,180,272	2,027,925
CASH AND CASH EQUIVALENTS		
Beginning at July 1	9,461,568	7,433,643
Ending at June 30	$ 10,641,840	$ 9,461,568
RECONCILIATION TO STATEMENT OF NET POSITION		
Cash and cash equivalents, unrestricted	$ 10,641,469	$ 9,461,362
Cash and cash equivalents, restricted	371	206
	$ 10,641,840	$ 9,461,568

The Notes to Financial Statements are an integral part of this statement.

Exhibit 3

FREDERICK WATER
STATEMENT OF CASH FLOWS (Continued)
For the Year Ended June 30, 2019
(With Comparative Amounts for the Year Ended June 30, 2018)

	2019	2018
RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating loss	$ (932,244)	$ (4,633,447)
Adjustments to reconcile operating loss to net cash provided by operating activities:		
Depreciation	10,920,040	10,790,997
Excess of employer contributions over pension expense	(305,126)	(252,376)
Excess of employer contributions over other postemployment benefits expense	(12,797)	(14,002)
Other nonoperating expenses included in operating activities	(725,299)	(30,786)
(Increase) decrease in:		
Accounts receivable	(437,033)	(748,457)
Prepaids and other assets	9,765	(4,101)
Inventories	(65,282)	(17,660)
Contract receivable	25,630	49,761
Increase (decrease) in:		
Accounts payable and accrued expenses	525,808	(215,345)
Customer deposits	(56,130)	17,055
Compensated absences	(5,023)	59,752
Net cash provided by operating activities	$ 8,942,309	$ 5,001,391
NONCASH CAPITAL AND RELATED FINANCING		
Developer contributed capital improvements	$ 3,090,080	$ 4,325,621
Impairment loss	$ -	$ 11,483
Debt incurred for acquisition of capital assets	$ 6,000	$ 8,450
Capital assets acquired through accounts payable	$ 2,232,753	$ 55,548

The Notes to Financial Statements are an integral part of this statement.

Note 1. Summary of Significant Accounting Policies

Reporting entity

Frederick Water (the "Authority") is a Virginia Corporation organized under the provisions of the Virginia Water and Waste Authorities Act (Sec. 15.2-5100 *et. seq.* of the *Code of Virginia*, 1950, as amended). The Authority's purpose is to acquire, construct, operate, and maintain an integrated water and sewer system for Frederick County, Virginia.

The Authority is financed and operated in a manner similar to private business enterprises. The intent of the governing body is that the costs (expenses, including depreciation) of providing services to the general public on a continuing basis be financed or recovered primarily through user charges. The accounting policies of the Authority conform to generally accepted accounting principles as applicable to governments.

Measurement focus and basis of accounting

The Authority's financial statements are reported using the *accrual basis of accounting*. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

The Authority distinguishes *operating* revenues and expenses from *nonoperating* items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the principal ongoing operations. The principal operating revenues are charges to customers for sales and services. Operating expenses include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

When both restricted and unrestricted resources are available for use, it is the Authority's policy to use restricted resources first, then unrestricted resources as they are needed.

Cash and cash equivalents

Cash and cash equivalents are considered to be demand deposits as well as certificates of deposit and short-term investments with original maturities three months or less from the date of acquisition.

Accounts receivable

Charges for services are determined generally through bi-monthly billings to customers. Charges for services earned but unbilled are accrued based on the last billing.

Accounts receivable are stated net of an allowance for doubtful accounts of $50,000. Bad debt expense was approximately $11,500.

Note 1. Summary of Significant Accounting Policies (Continued)

Contracts receivable

The Authority enters into contracts with developers to expand water and sewer lines to future development areas. Upon completion of construction and at the time the lines are placed in service the developer pays the Authority for a portion of the costs incurred for the project. Contracts receivable consist of amounts due for completed projects. The current portion is included in accounts receivable.

Inventories

Inventories are valued at first-in/first-out historical cost.

Capital assets

Capital assets, which are recorded at cost if purchased or constructed, include property, plant, equipment, infrastructure, and contractual rights to long-term assets. Contributed assets, principally water and sewer lines, are recorded at an amount which approximates the contributor's cost. The costs of major improvements and additions are capitalized. Normal repairs and maintenance are expensed. Any gain or loss on the sale or disposition of capital assets is recognized currently. Projects not in service are carried as construction in progress.

Capital assets are depreciated using the straight-line method over the following estimated useful lives:

	Years
Water source of supply	7-40
Water and sewage pumping	5-40
Water transmission and distribution	15-40
Sewage collection and transmission	5-40
General plant	3-40
FWSA treatment plant rights	20

The estimated useful lives of the treatment plant rights are based on the shorter of useful lives of the underlying assets or management's expectation regarding renewals of the agreements. Failure to renew these agreements may result in a loss of any unamortized cost of the treatment plant rights. Contractual rights for water sources of supply are based on the terms of the underlying agreements.

Note 1. Summary of Significant Accounting Policies (Continued)

Deferred outflows and inflows of resources

In addition to assets, the statement which presents financial position reports a separate section for deferred outflows of resources. These items represent a consumption of net position that applies to future periods and so will *not* be recognized as an outflow of resources (expense) until then.

In addition to liabilities, the statement which presents financial position reports a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to future periods and so will *not* be recognized as an inflow of resources (revenue) until that time.

The Authority has the following items that qualify for reporting as deferred inflows or outflows:

- Deferred charge on refunding. A deferred loss on refunding results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. Due to the relationship with outstanding debt, these deferred outflows are included in the calculation of net position, net investment in capital assets.
- Contributions subsequent to the measurement date for pensions and OPEB; these will be applied to the net pension or OPEB liability in the next fiscal year.
- Differences between expected and actual experience for economic/demographic factors and changes of assumptions in the measurement of the total pension or OPEB liability. This difference will be recognized in pension or OPEB expense over the expected average remaining service life of all employees provided with benefits in the plan and may be reported as a deferred inflow or outflow as appropriate.
- Changes in proportion and differences between the Authority's contributions and its proportionate share of contributions for OPEB are deferred and amortized over the average expected remaining service lives of all employees provided with group life insurance benefits, and may be reported as a deferred inflow or outflow as appropriate
- Differences between projected and actual earnings on pension and OPEB plan investments. These differences will be recognized in pension or OPEB expense over the closed five year period and may be reported as a deferred outflow or inflow as appropriate.

Unearned revenue

The Authority has entered various agreements to provide availability to water and sewer systems. Fees collected in exchange for these contracts are unearned until the availability is provided.

Compensated absences

The Authority allows its employees to accumulate personal time off based on years of service. Personal time off hours in excess of the maximum at December 31 is forfeited. Upon termination or retirement, the Authority pays accumulated personal time off subject to the maximum accrual.

(Continued)

Note 1. Summary of Significant Accounting Policies (Continued)

Pensions and Other Postemployment Benefits (OPEB)

For purposes of measuring all financial statement elements related to pension and OPEB plans, information about the fiduciary net position of the Authority's Plans and the additions to/deductions from the Authority's Plan's net fiduciary position have been determined on the same basis as they were reported by the Virginia Retirement System (VRS). For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Net position

Net position is the difference between assets and deferred outflows of resources, liabilities, and deferred inflows of resources. Net investment in capital assets represents capital assets, less accumulated depreciation, less any outstanding debt related to those assets. Restricted net position includes amounts which are set aside for the repayment of bond principal and interest, and potential future deficiencies in accordance with applicable bond covenants.

Estimates

Management uses estimates and assumptions in preparing its financial statements. Actual results could differ from those estimates.

Fair value measurement

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. Level 2 investments are valued using a matrix pricing technique, which is based on the investments' benchmark quoted prices.

Note 2. Cash and Investments

Deposits

Deposits with banks are covered by the Federal Deposit Insurance Corporation (FDIC) and collateralized in accordance with the Virginia Security for Public Deposits Act (the "Act") Section 2.20440 et seq. of the Code of Virginia. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial institutions may choose between two collateralization methodologies and, depending upon that choice, pledge collateral that ranges between 50% and 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

(Continued)

Note 2. Cash and Investments (Continued)

Deposits (Continued)

For the purposes of this disclosure, deposits include cash and cash equivalents as well as nonnegotiable certificates of deposit with original maturities of more than three months.

Investments

Statutes authorize local governments and other public bodies to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof, obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, "prime quality" commercial paper and certain corporate notes, which include banker's acceptances, repurchase agreements, and the Virginia Investment Pool (VIP). The VIP is not registered with the SEC but is overseen by the Treasurer of Virginia and the State Treasury Board. The fair value of the Authority's position in the pool is the same as the value of the pool shares.

The Authority's policy limits investments to instruments specified in Section 26-40 of the Code of Virginia.

The Authority holds deposits in the VIP which has a Standard and Poor's pool rating of AAf/S1. The VIP invests in various security types, including U.S. Treasury notes and U.S. government agency securities, corporate bonds, and commercial paper that are typically rated 'AA-' or higher and have an average maturity of approximately one to three years. The 'AAf/S1' rating reflects the high safety level of the invested principal and the fund's capacity to maintain a stable net asset value.

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. As of June 30, 2019, the Authority's investments in federal agency bonds and notes and corporate bonds and notes were valued using Level 2 inputs.

As of June 30, 2019, the Authority had approximately $1,000,000 in investments that no longer meet the minimum financial ratings required by the Commonwealth of Virginia.

For the purposes of this disclosure, investments include unrestricted investments, and exclude nonnegotiable certificates of deposit with original maturities of more than three months.

(Continued)

Note 2. Cash and Investments (Continued)

Investments (Continued)

The Authority's investments consisted of the following:

Investment Type	Fair Value	S&P Credit Rating	Weighted Average Maturity *
Federal agency bonds and notes	$ 3,593,198	AA+	1.52
Corporate bonds and notes	1,501,995	BBB to AAA	1.09
Virginia Investment Pool	15,736,226	AAf/S1	1.93
Total investments	$ 20,831,419		
*-Average maturity in years			

Cash and cash equivalents	$ 10,641,840
Long-term certificates of deposit	12,059,521
Total deposits	$ 22,701,361
Total deposits and investments	$ 43,532,780

Reconciliation of deposits and investments to Exhibit 1:

Cash and cash equivalents, unrestricted	$ 10,641,469
Cash and cash equivalents, restricted	371
Investments	32,890,940
	$ 43,532,780

Restricted assets

Cash and cash equivalents, restricted includes amounts which are set aside for the repayment of bond principal and interest, and potential future deficiencies in accordance with applicable bond covenants and other specified purposes as well as unspent bond proceeds. They are maintained in separate accounts.

FREDERICK WATER

NOTES TO FINANCIAL STATEMENTS
June 30, 2019

Note 3. Accounts Receivable

Accounts receivable consisted of the following:

Billed	$ 2,333,153
Unbilled	1,855,100
Other	104,568
Contracts receivable-current	25,630
	$ 4,318,451

Note 4. Capital Assets

Capital asset activity for the year ended June 30, 2019 was as follows:

	Beginning Balance	Increases	Decreases	Ending Balance
Capital assets not being depreciated				
Land	$ 4,108,560	$ 2,452,456	$ -	$ 6,561,016
Construction in progress	2,537,927	7,253,977	701,395	9,090,509
Total capital assets, not being depreciated	6,646,487	9,706,433	701,395	15,651,525
Capital assets being depreciated				
Water source of supply	7,866,250	-	-	7,866,250
Water pumping	15,297,772	128,910	85,748	15,340,934
Sewage pumping	3,148,489	105,292	-	3,253,781
Water transmission and distribution	70,794,686	1,650,681	224,085	72,221,282
Sewage collection and transmission	80,635,097	2,278,915	10,016	82,903,996
General plant	10,060,304	176,747	13,067	10,223,984
FWSA treatment plant rights	111,145,338	-	-	111,145,338
Total capital assets being depreciated	298,947,936	4,340,545	332,916	302,955,565
Less accumulated depreciation for:				
Other capital assets	80,301,217	5,856,563	326,481	85,831,299
FWSA treatment plant rights	43,998,987	5,063,477	-	49,062,464
Total accumulated depreciation	124,300,204	10,920,040	326,481	134,893,763
Total capital assets being depreciated, net	174,647,732	(6,579,495)	6,435	168,061,802
Total capital assets, net	$ 181,294,219	$ 3,126,938	$ 707,830	$ 183,713,327

(Continued)

Note 4. Capital Assets (Continued)

<u>Frederick-Winchester Service Authority (FWSA) treatment plant rights</u>

As described in Note 5, the Authority and the FWSA have entered into agreements for the Authority to operate certain wastewater treatment plants of the FWSA. The Authority is not authorized to hold legal title to these assets, and thus, the FWSA holds title to these assets. Through long-term contracts, the risks and benefits of operating and maintaining the assets have been transferred to the Authority, and represent intangible capital assets. The Authority is responsible for a portion of the debt incurred for these facilities.

During 2007, a developer contributed a $4,500,000 wastewater treatment plant to the FWSA. Based on a 2001 agreement between the FWSA and the Authority, the Authority operates this plant, resulting in additional treatment plant rights. Ninety-five percent of availability fees collected for use of capacity for this system will be paid to the developer until certain capacity thresholds are met or 15 years after conveyance.

During 2008, the FWSA issued debt for the upgrade and expansion of the Parkins Mill Wastewater Treatment Plant. During 2010, this project was completed and the Authority assumed responsibility for the operations of this plant as well as the related debt service in the approximate amount of $37,930,000.

During 2008 and 2009, the FWSA issued debt for the upgrade and expansion of the Opequon Water Reclamation Facility. During 2011, this project was completed and the Authority assumed responsibility for a portion of the related debt service in the approximate amount of $25,230,000.

During 2015, the FWSA issued refunding debt to reduce future debt service requirements and the Authority assumed its responsibility for a portion of the related debt service in the amount of $7,846,051.

In November 2013, the Authority, along with the FWSA, the County of Frederick, and the City of Winchester, approved the Green Energy Project (the “Project”) for the purpose of implementing a series of capacity and efficiency improvements to the Opequon Water Reclamation Facility. To finance this project, the FWSA authorized the issuance of $53,000,000 in bonds. In late fiscal year 2017, the Project began accepting waste. The Authority has assumed responsibility for a portion of the related debt service in the approximate amount of $25,092,500.

Note 5. Long-Term Liabilities

The following is a summary of changes in long-term liabilities:

	Beginning Balance	Increases	Decreases	Ending Balance	Due Within One Year
Obligations payable – FWSA	$ 70,033,665	$ -	$ 3,668,241	$ 66,365,424	$ 3,933,995
Revenue bonds	16,670,903	-	1,416,706	15,254,197	1,477,257
Capital leases	10,907	6,000	3,700	13,207	3,837
Issuance premiums	1,666,390	-	171,673	1,494,717	171,674
	88,381,865	6,000	5,260,320	83,127,545	5,586,763
Compensated absences	666,925	416,812	421,835	661,902	478,357
Total long-term liabilities	$ 89,048,790	$ 422,812	$ 5,682,155	$ 83,789,447	$ 6,065,120

The annual requirements to amortize long-term debt and related interest are as follows:

	Obligations Payable – FWSA		Revenue Bonds		Capital Leases		Totals	
Fiscal Year	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2020	$ 3,933,995	$ 2,234,132	$ 1,477,257	$ 645,998	$ 3,841	$ 553	$ 5,415,093	$ 2,880,683
2021	3,773,994	2,113,483	1,547,819	578,460	3,490	373	5,325,303	2,692,316
2022	3,891,368	1,993,016	1,584,121	508,193	2,891	227	5,478,380	2,501,436
2023	4,022,550	1,865,764	1,640,000	433,256	2,263	92	5,664,813	2,299,112
2024	4,151,610	1,732,060	1,075,000	366,420	722	18	5,227,332	2,098,498
2025-2029	22,942,846	6,486,260	5,450,000	1,027,392	-	-	28,392,846	7,513,652
2030-2034	12,257,786	3,400,533	1,005,000	403,801	-	-	13,262,786	3,804,334
2035-2039	11,391,275	1,314,624	1,205,000	197,117	-	-	12,596,275	1,511,741
2040	-	-	270,000	10,542	-	-	270,000	10,542
	$ 66,365,424	$ 21,139,872	$ 15,254,197	$ 4,171,179	$ 13,207	$ 1,263	$ 81,632,828	$ 25,312,314

Note 5. Long-Term Liabilities (Continued)

Details of long-term indebtedness are as follows:

	Issue Date	Maturity Date	Authorized and Issued	Interest Rate	Amount Outstanding
Obligations Payable – FWSA					
FWSA Opequon Water Facility Loans	04/01/2004	05/01/2020	$ 5,960,160	3.50 %	$ 416,389
2010 FWSA Parkins Mill Expansion	03/01/2010	09/01/2029	37,930,386	2.52	22,882,843
2011 FWSA Opequon Facility Expansion II	03/01/2009	03/01/2031	12,613,293	2.65	8,607,067
2015 FWSA Refunding Debt	05/28/2015	10/01/2038	7,840,530	3.22-5.13	7,776,630
FWSA Series 2014A	05/07/2014	10/01/2038	15,055,000	3.13-4.83	14,560,000
FWSA Series 2014B	07/29/2014	10/01/2038	10,037,500	3.65-5.13	9,755,000
FWSA Series 2016B	07/27/2017	10/01/2038	2,402,640	2.71-5.13	2,367,495
					$ 66,365,424
Revenue Bonds					
Virginia Water Facilities Revolving Fund	03/16/2001	09/01/2021	$ 649,352	1.50 %	$ 94,197
VML/VACO Recovery Zone Bond	02/01/2010	02/01/2040	4,980,000	2.10-7.02	4,030,000
Virginia Infrastructure Revenue Bonds	11/14/2010	10/01/2022	5,460,000	3.10-5.10	2,285,000
Virginia Water and Sewer Refunding Bonds	05/28/2015	10/01/2027	6,020,000	3.13-5.13	5,535,000
Virginia Infrastructure Refunding Bonds	11/18/2015	10/01/2028	4,045,000	3.08-5.13	3,310,000
					$ 15,254,197
Capital Lease					
Lease for equipment	10/01/2015	01/01/2021	$ 5,950	4.62	$ 1,848
Lease for equipment	11/01/2017	02/01/2023	8,450	4.89	5,870
Lease for equipment	02/01/2019	05/01/2024	6,000	4,62	5,489
					$ 13,207

Accrued interest

During 2009, certain notes with Frederick County dated 1976 and 1987 were satisfied in exchange for availability fees. Long-term interest payable of $657,083 related to those notes is still outstanding, and is expected to be forgiven when the ball fields project described in Note 10 is completed.

Prior defeasance of debt

In prior years, the Authority defeased certain outstanding revenue bonds payable. The proceeds were placed in trust to fund all future debt service payments. Accordingly, the trust account assets and liabilities for the defeased bonds are not included in the Authority's financial statements. At June 30, 2019, the following bonds are considered defeased:

Note 5. Long-Term Liabilities (Continued)

Prior defeasance of debt (continued)

	Beginning Balance	Increases	Decreases	Ending Balance
VPFP Series 2005C	$ 4,050,000	$ -	$ 290,000	$ 3,760,000
VPFP Series 2007B	6,320,000	-	510,000	5,810,000
	$ 10,370,000	$ -	$ 800,000	$ 9,570,000

FWSA obligations

The Authority and the FWSA have entered multiple agreements for the Authority to operate certain sewage treatment facilities owned by the FWSA (See Note 4).

Note 6. Defined Benefit Pension Plan

Plan Description

All full-time, salaried permanent employees of the Authority, (the "Political Subdivision") are automatically covered by VRS Retirement Plan upon employment. This agent multi-employer plan is administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

The System administers three different benefit structures for covered employees – Plan 1, Plan 2, and Hybrid. Each of these benefit structures has a different eligibility criteria. The specific information for each plan and the eligibility for covered groups within each plan are available at:

- https://www.varetire.org/members/benefits/defined-benefit/plan1.asp,
- https://www.varetire.org/members/benefits/defined-benefit/plan2.asp,
- https://www.varetirement.org/hybrid.html.

Note 6. Defined Benefit Pension Plan (Continued)

Employees Covered by Benefit Terms

As of the June 30, 2017 actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	Number
Inactive members or their beneficiaries currently receiving benefits	25
Inactive members:	
Vested inactive members	5
Non-vested inactive members	6
Inactive members active elsewhere in VRS	2
Total inactive members	13
Active members	67
Total covered employees	105

Contributions

The contribution requirement for active employees is governed by §51.1-145 of the *Code of Virginia*, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement.

The political subdivision's contractually required contribution rate for the year ended June 30, 2019 was 4.90% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2017.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employee during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the political subdivision were $166,328 and $221,893 for the years ended June 30, 2019 and 2018, respectively.

Note 6. Defined Benefit Pension Plan (Continued)

Net Pension Liability

The political subdivision's net pension liability is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. For political subdivisions, the net pension liability was measured as of June 30, 2018. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2017 rolled forward to the measurement date of June 30, 2018.

Actuarial Assumptions – General Employees

The total pension liability for General Employees in the Political Subdivision's Retirement Plan was based on an actuarial valuation as of June 30, 2017, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018.

Inflation	2.50%
Salary increases, including inflation	3.50 – 5.35%
Investment rate of return	7.00%, net of pension plan investment expense, including inflation*

*Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment rate for GASB purposes of slightly more than the assumed 7.0%. However, since the difference was minimal, and a more conservative 7.0% investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 7.0% to simplify preparation of pension liabilities.

Mortality rates: General employees – 15 to 20% of deaths are assumed to be service related. Public Safety Employees – 60% of deaths are assumed to be service related. Mortality is projected using the applicable RP-2014 Mortality Table Projected to 2020 with various set backs or set forwards for both males and females.

The actuarial assumptions used in the June 30, 2017 valuation were based on the results of an actuarial experience study for the period from July 1, 2012 through June 30, 2016. Changes to the actuarial assumptions as a result of the experience study are as follows:

General Employees - Largest 10 – Non-Hazardous Duty and All Others (Non 10 Largest): Update mortality table; lowered retirement rates at older ages, changed final retirement from 70 to 75; lowered disability rates, no change to salary scale, increased rate of line of duty disability from 14% to 20%.

Note 6. Defined Benefit Pension Plan (Continued)

Long-Term Expected Rate of Return

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.00 %	4.54 %	1.82 %
Fixed Income	15.00	0.69	0.10
Credit Strategies	15.00	3.96	0.59
Real Assets	15.00	5.76	0.86
Private Equity	15.00	9.53	1.43
Total	100.00 %		4.80 %
	Inflation		2.50 %
	* Expected arithmetic nominal return		7.30 %

* The above allocation provides for a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected rate of return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.5%.

Note 6. Defined Benefit Pension Plan (Continued)

Discount Rate

The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2018, the alternate rate was the employer contribution rate used in the FY 2012 or 90% of the actuarially determined employer contribution rate from the June 30, 2015, actuarial valuations, whichever is greater. From July 1, 2018 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
Balances at June 30, 2017	$ 9,939,959	$ 9,600,756	$ 339,203
Changes for the year:			
Service cost	317,218	-	317,218
Interest	680,160	-	680,160
Differences between expected and actual experience	(125,527)	-	(125,527)
Contributions – employer	-	221,893	(221,893)
Contributions – employee	-	171,738	(171,738)
Net investment income	-	710,922	(710,922)
Benefit payments, including refunds of employee contributions	(446,768)	(446,768)	-
Administrative expenses	-	(6,065)	6,065
Other changes	-	(636)	636
Net changes	425,083	651,084	(226,001)
Balances at June 30, 2018	$ 10,365,042	$ 10,251,840	$ 113,202

Note 6. Defined Benefit Pension Plan (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the political subdivision using the discount rate of 7.00%, as well as what the political subdivision's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
Political subdivision's net pension liability (asset)	$ 1,340,685	$ 113,202	$ (917,314)

Pension Expense (Income) and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2019, the political subdivision recognized pension expense (income) of ($138,798). At June 30, 2019, the political subdivision reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ (480,472)
Changes of assumptions	-	(123,558)
Net difference between projected and actual earnings on pension plan investments	-	(88,731)
Employer contributions subsequent to the measurement date	166,328	-
Total	$ 166,328	$ (692,761)

Note 6. Defined Benefit Pension Plan (Continued)

Pension Expense (Income) and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Continued)

The Authority reported deferred outflows of resources related to pensions resulting from the Political Subdivision's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year Ending June 30,	Increase (Reduction) to Pension Expense
2020	$ (176,981)
2021	(209,847)
2022	(234,043)
2023	(67,998)
2024	(3,892)
Thereafter	-

Pension Plan Data

Information about the VRS Political Subdivision Retirement Plans is also available in the separately issued VRS 2018 Comprehensive Annual Financial Report (CAFR). A copy of the 2018 VRS CAFR may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans

In addition to their participation in the pension plans offered through the Virginia Retirement System (VRS), the Authority also participates in various cost-sharing and agent multi-employer other postemployment benefit plans, described as follows.

Plan Descriptions

Group Life Insurance Program

All full-time teachers and employees of political subdivisions are automatically covered by the VRS Group Life Insurance (GLI) Program upon employment.

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Group Life Insurance Program (Continued)

In addition to the Basic Group Life Insurance Benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured program, it is not included as part of the GLI Program OPEB.

Specific information for the GLI is available at https://www.varetire.org/members/benefits/life-insurance/basic-group-life-insurance.asp

The GLI plan is administered by the VRS, along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia. This plan is considered a multiple employer, cost sharing plan.

General Employee Health Insurance Credit Program

The General Employee Health Insurance Credit Program (HIC) is available for all full time, salaried employees of local government entities other than Teachers. The General Employee HIC provides all the same benefits as the Teacher HIC, except that this plan is considered a multi-employer agent plan.

As of the June 30, 2017 actuarial valuation, the following employees were covered by the benefit terms of the General Employee Health Insurance Credit Program:

	Number
Inactive members or their beneficiaries currently receiving benefits	12
Inactive members:	
Vested inactive members	-
Non-vested inactive members	-
Inactive members	-
Total inactive members	12
Active members	67
Total covered employees	79

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Contributions

Contributions to the VRS OPEB programs were based on actuarially determined rates from actuarial valuations as of June 30, 2017. The actuarially determined rates were expected to finance the cost of benefits earned by employees during the year, with an additional amount to fund any unfunded accrued liability. Specific details related to the contributions for the VRS OPEB programs are as follows:

Group Life Insurance Program

Governed by:	*Code of Virginia* 51.1-506 and 51.1-508 and may be impacted as a result of funding provided to school divisions and governmental agencies by the Virginia General Assembly.
Total rate:	1.31% of covered employee compensation. Rate allocated 60/40; 0.79% employee and 0.52% employer. Employers may elect to pay all or part of the employee contribution.
June 30, 2019 Contribution	$19,445
June 30, 2018 Contribution	$18,626

General Employee Health Insurance Credit Program

Governed by:	*Code of Virginia* 51.1-1402(E) and may be impacted as a result of funding provided to governmental agencies by the Virginia General Assembly.
Total rate:	0.14% of covered employee compensation.
June 30, 2019 Contribution	$5,230
June 30, 2018 Contribution	$5,014

OPEB Liabilities, OPEB Expense and Deferred Inflows and Outflows of Resources Related to OPEB

The net OPEB liabilities were measured as of June 30, 2018 and the total OPEB liabilities used to calculate the net OPEB liabilities were determined by actuarial valuations as of that date. The covered employer's proportion of the net OPEB liabilities were based on the covered employer's actuarially determined employer contributions for the year ended June 30, 2018 relative to the total of the actuarially determined employer contributions for all participating employers.

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Group Life Insurance Program

June 30, 2019 proportionate share of liability	$287,000
June 30, 2018 proportion	0.01884%
June 30, 2017 proportion	0.01805%
June 30, 2019 expense	$7,000

Since there was a change in proportionate share between measurement dates, a portion of the OPEB expense above was related to deferred amount from changes in proportion. The 2019 expense for the Health Insurance Credit Program was $4,252.

General Employee Health Insurance Credit Program

Changes in net OPEB liability of the General Employee Health Insurance Credit Program were as follows:

	Increase (Decrease)		
	Total OPEB Liability (a)	**Plan Fiduciary Net Position (b)**	**Net OPEB Liability (a) – (b)**
Balances at June 30, 2017	$ 96,562	$ 66,919	$ 29,643
Changes for the year:			
Service cost	2,546	-	2,546
Interest	6,546	-	6,546
Differences between expected and actual experience	3,032	-	3,032
Contributions – employer	-	5,014	(5,014)
Net investment income	-	4,746	(4,746)
Benefit payments, including refunds of employee contributions	(6,102)	(6,102)	-
Administrative expenses	-	(111)	111
Other changes	-	(343)	343
Net changes	6,022	3,204	2,818
Balances at June 30, 2018	$ 102,584	$ 70,123	$ 32,461

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

At June 30, 2019, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources.

Group Life Insurance Program

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 14,000	$ (5,000)
Changes of assumptions	-	(12,000)
Net difference between projected and actual earnings on OPEB plan investments	-	(9,000)
Changes in proportionate share	22,000	-
Employer contributions subsequent to the measurement date	19,445	-
Total	$ 55,445	$ (26,000)

General Employee Health Insurance Credit Program

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 2,590	$ -
Changes of assumptions	-	(2,807)
Net difference between projected and actual earnings on OPEB plan investments	-	(1,729)
Employer contributions subsequent to the measurement date	5,230	-
Total	$ 7,820	$ (4,536)

The deferred outflows of resources related to OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Group Life Insurance Program

Year Ending June 30,	Increase (Reduction) to OPEB Expense
2020	$ 1,000
2021	1,000
2022	1,000
2023	2,000
2024	3,000
Thereafter	2,000

General Employee Health Insurance Credit Program

Year Ending June 30,	Increase (Reduction) to OPEB Expense
2020	$ (664)
2021	(664)
2022	(665)
2023	(120)
2024	(96)
Thereafter	263

Actuarial Assumptions and Other Inputs

The total OPEB liability was determined using the following assumptions based on an actuarial valuation date of June 30, 2017, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2018:

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Inflation	2.5%
Salary increases, including inflation:	
• Locality- general employees	3.5 – 5.35%
Investment rate of return, net of expenses, including inflation*	GLI & HIC: 7.0%

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06% of the market assets for all of the VRS plans. This would provide an assumed investment rate for GASB purposes of slightly more than the assumed percent above. However, since the difference was minimal, and a more conservative investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be the percent noted above to simplify preparation of OPEB liabilities.

Mortality rates used for the various VRS OPEB plans are the same as those used for the actuarial valuations of the VRS pension plans. The mortality rates are discussed in detail at Note 6.

Net OPEB Liabilities

The net OPEB liabilities represent each program's total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of June 30, 2018, net OPEB liability amounts for the various VRS OPEB programs are as follows (amounts expressed in thousands):

	Group Life Insurance Program
Total OPEB Liability	$ 3,113,508
Plan fiduciary net position	$ 1,594,773
Employers' net OPEB liability (asset)	$ 1,518,735
Plan fiduciary net position as a percentage of total OPEB liability	51.22%

The total liability is calculated by the VRS actuary and each plan's fiduciary net position is reported in the VRS financial statements. The net OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the VRS notes to the financial statements and required supplementary information.

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Long-Term Expected Rate of Return

Group Life Insurance and Health Insurance Credit Programs

The long-term expected rate of return on VRS investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Target Allocation	Arithmetic Long-Term Expected Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	40.00 %	4.54 %	1.82 %
Fixed Income	15.00	0.69	0.10
Credit Strategies	15.00	3.96	0.59
Real Assets	15.00	5.76	0.86
Private Equity	15.00	9.53	1.43
Total	100.00 %		4.80 %
		Inflation	2.50 %
		*Expected arithmetic nominal return	7.30 %

* The above allocation provides for a one-year return of 7.30%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected rate of return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.83%, including expected inflation of 2.5%.

Note 7. Other Postemployment Benefits Liability – Virginia Retirement System Plans (Continued)

Discount Rate

The discount rate used to measure the GLI and HIC OPEB liabilities was 7.00%. The discount rate used to measure the LODA OPEB liability was 3.89% The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Guidance and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2018, the rate contributed by the employer for the OPEB liabilities will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2018 on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the OPEB plans' fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liabilities of the Authority, as well as what the Authority's net OPEB liabilities would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current discount rate:

	1.00% Decrease (6.00%)	Current Discount Rate (7.00%)	1.00% Increase (8.00%)
GLI Net OPEB liability	$ 366,693	$ 287,000	$ 216,080
General Employee HIC Net OPEB liability	$ 42,822	$ 32,461	$ 23,581

OPEB Plan Fiduciary Net Position

Information about the various VRS OPEB plan fiduciary net position is available in the separately issued VRS 2018 Comprehensive Annual Financial Report (CAFR). A copy of the 2018 VRS CAFR may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2018-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

Note 8. Water Contracts

The Authority obtains water from the City of Winchester under a 1971 contract most recently amended in 2002. The amended contract expires April 30, 2022, and includes rate adjustments, subject to certain limitations. The Authority also obtains water from Carmeuse Lime & Stone under a 2013 contract that expires in 2020. Purchases amounted to $3,596,470 for 2019.

Note 9. Risk Management

The Authority is exposed to various risks of loss related to torts, theft of, damage to, and destruction of assets; errors and omissions; and natural disasters. The Authority participates with other localities in the Virginia Association of Counties Liability Pool, a public entity risk pool for its coverage of general liability, auto insurance, and workers' compensation. Each member of this risk pool jointly and severally agrees to assume, pay, and discharge any liability. The Authority pays the contributions and assessments based upon classification and rates into a designated cash reserve fund out of which expenses of the pool, claims and awards are to be paid. In the event of a loss deficit and depletion of all available excess insurance, the pool may assess all members in the proportion in which the premium of each bears to the total premiums of all members in the year in which such deficit occurs. The Authority carries commercial insurance for all other risks of loss. Settled claims resulting from these risks have not exceeded commercial coverage in the past three years and there have not been any significant reductions in coverage from the previous year.

Note 10. Commitments and Contingencies

Availability Agreements

The Authority has entered various agreements to provide availability to water and sewer systems. Fees collected in exchange for these contracts are unearned until the availability is provided.

Settlement Agreements

During 2019, the Authority entered into a settlement agreement with a water supply source and wholesale customer. The agreement conveyed to Frederick Water three tracts of real property, including two water supply sources (quarries), in exchange for discounted water and sewer rates in perpetuity, and release from all unpaid water and wastewater charges and unpaid debt service charges incurred and not paid up to the closing date of the agreement. Through the date of the agreement, due to the uncertainty of collection, all unpaid balances were fully allowed for. The nonoperating revenues recognized related to the settlement agreement during 2019 were $1,839,679.

During 2013, the Authority entered into a settlement agreement with a water supply source (quarry) which is effective for at least seven years and replaced an existing lease which had provided water rights at three separate locations. The agreement provides the Authority with a minimum of 2.2 million gallons of water per day (subject to force majeure) and requires the Authority to purchase water for at least seven years at annually increasing rates and a minimum of 1.8 million gallons of water per day on an annual average. The Authority was required to pay $4,000,000 as part of the agreement and has capitalized these costs as an intangible water right.

Note 10. Commitments and Contingencies (Continued)

Settlement Agreements (Continued)

Additionally, the agreement includes a cost sharing arrangement for the construction of ball fields. Per the agreement, in the event mining activities result in the displacement of existing ball fields within the time period during which the Authority purchases water or for a period of ten years from April 24, 2013 (whichever occurs later), Frederick County may require the Authority pay the cost of construction of new ball fields, excluding land costs. The displacement of existing ball fields occurred during 2019, and as a result, the Authority must have the ball fields ready for use in the spring of 2020. The Authority has recorded a liability for the estimated remaining project costs to complete the ball fields of $2,549,695.

Litigation

The Authority is the defendant in a lawsuit relating to a claim by a developer seeking reimbursement for the costs of a water line upgrade it performed, as well as challenging the methodology the Authority uses to derive its availability fees. Management and legal counsel are of the opinion that an outcome of the case cannot be reasonably determined. Management estimates that, if unsuccessful in the litigation, the Authority could be liable for approximately $2,600,000.

Note 11. New Accounting Standards

The Governmental Accounting Standards Board (GASB) has issued the following Statements which are not yet effective.

The GASB issued **Statement No. 84**, Fiduciary Activities in January 2017. This Statement establishes standards of accounting and financial reporting for fiduciary activities. The requirements of this Statement are effective for periods beginning after December 15, 2018.

The GASB issued **Statement No. 87**, *Leases* in June 2017. This Statement establishes standards of accounting and financial reporting for leases by lessees and lessors. The requirements of this Statement are effective for periods beginning after December 15, 2019.

The GASB issued **Statement No. 90**, *Major Equity Interests, an amendment of GASB Statements No. 14 and No. 61* in August 2018. This Statement improves the consistency and comparability of reporting a government’s majority equity interest in a legally separate organization and improves the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those governments and funds should measure the majority equity interest at fair value.

Note 11. New Accounting Standards (Continued)

For all other holdings of a majority equity interest in a legally separate organization, a government should report the legally separate organization as a component unit, and the government or fund that holds the equity interest should report an asset related to the majority equity interest using the equity method. This Statement establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit.

This Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities, and deferred inflows of resources at acquisition value at the date the government acquired a 100 percent equity interest in the component unit. Transactions presented in flows statements of the component unit in that circumstance should include only transactions that occurred subsequent to the acquisition.

The requirements of this Statement are effective for periods beginning after December 15, 2018.The requirements should be applied retroactively, except for the provisions related to (1) reporting a majority equity interest in a component unit and (2) reporting a component unit if the government acquires a 100 percent equity interest. Those provisions should be applied on a prospective basis.

The GASB issued **Statement No. 91**, *Conduit Debt Obligations* in May 2019. This Statement provides a single method of reporting conduit debt obligations by issuers and eliminates diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. The requirements of this Statement are effective for reporting periods beginning after December 15, 2020.

Management has not determined the effects these new GASB Statements may have on prospective financial statements

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REQUIRED SUPPLEMENTARY INFORMATION

EXHIBIT 4

FREDERICK WATER

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
June 30, 2019

	Plan Year Ended June 30,				
Total Pension Liability	**2018**	**2017**	**2016**	**2015**	**2014**
Service cost	$ 317,218	$ 318,484	$ 294,234	$ 287,609	$ 286,002
Interest on total pension liability	680,160	675,153	651,099	643,148	610,394
Difference between expected and actual experience	(125,527)	(282,765)	(159,986)	(383,245)	-
Changes of assumptions	-	(196,240)		-	-
Benefit payments, including refunds of employee contributions	(446,768)	(439,431)	(444,009)	(423,840)	(433,133)
Net change in total pension liability	425,083	75,201	341,338	123,672	463,263
Total pension liability - beginning	9,939,959	9,864,758	9,523,420	9,399,748	8,936,485
Total pension liability - ending	10,365,042	9,939,959	9,864,758	9,523,420	9,399,748
Plan Fiduciary Net Position					
Contributions - employer	221,893	211,875	281,381	267,322	277,708
Contributions - employee	171,738	161,565	150,593	143,454	138,417
Net investment income	710,922	1,053,419	151,265	374,931	1,112,963
Benefit payments, including refunds of employee contributions	(446,768)	(439,431)	(444,009)	(423,840)	(433,133)
Administrative expenses	(6,065)	(6,035)	(5,224)	(5,062)	(5,963)
Other	(636)	(938)	(63)	(77)	58
Net change in plan fiduciary net position	651,084	980,455	133,943	356,728	1,090,050
Plan fiduciary net position - beginning	9,600,756	8,620,301	8,486,358	8,129,630	7,039,580
Plan fiduciary net position - ending	10,251,840	9,600,756	8,620,301	8,486,358	8,129,630
Net pension liability - ending	$ 113,202	$ 339,203	$ 1,244,457	$ 1,037,062	$ 1,270,118
Plan fiduciary net position as a percentage of total pension liability	99%	97%	87%	89%	86%
Covered payroll	$ 3,581,847	$ 3,322,990	$ 3,068,409	$ 2,891,892	$ 2,780,545
Net pension liability as a percentage of covered payroll	3%	10%	41%	36%	46%

The plan years above are reported in the entity's financial statements in the fiscal year following the plan year - i.e., plan year 2014 was presented in the entity's fiscal year 2015 financial report.

This schedule is intended to show information for 10 years. Since fiscal year 2015 (plan year 2014) was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

The Notes to Required supplementary Information are an integral part of this schedule.

EXHIBIT 5

FREDERICK WATER

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF PENSION CONTRIBUTIONS
June 30, 2019

Entity Fiscal Year Ended June 30	Actuarially Determined Contribution	Contributions in Relation to Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2019	$ 166,328	$ 166,328	$ -	$ 3,736,155	4.45%
2018	221,893	221,893	-	3,581,847	6.19%
2017	211,875	211,875	-	3,322,990	6.38%
2016	281,381	281,381	-	3,068,409	9.17%
2015	268,657	268,657	-	2,891,892	9.29%

Schedule is intended to show information for 10 years. Since 2015 was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

The covered payroll amounts above are for the Authority's fiscal year - i.e., the covered payroll on which required contributions were based for the same year.

EXHIBIT 6

FREDERICK WATER

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF CHANGES IN NET OPEB LIABILITY AND RELATED RATIOS
June 30, 2019

VRS Health Insurance Credit - General Employees	**Plan Year Ended June 30, 2018**	**Plan Year Ended June 30, 2017**
Total OPEB Liability		
Service cost	$ 2,546	$ 2,588
Interest on total OPEB liability	6,546	6,514
Difference between expected and actual experience	3,032	-
Changes of assumptions		(3,883)
Benefit payments	(6,102)	(3,422)
Net change in total OPEB liability	6,022	1,797
Total OPEB liability - beginning	96,562	94,765
Total OPEB liability - ending	102,584	96,562
Plan Fiduciary Net Position		
Contributions - employer	5,014	4,652
Net investment income	4,746	6,878
Benefit payments	(6,102)	(3,422)
Administrative expenses	(111)	(114)
Other	(343)	343
Net change in plan fiduciary net position	3,204	8,337
Plan fiduciary net position - beginning	66,919	58,582
Plan fiduciary net position - ending	70,123	66,919
Net OPEB liability - ending	$ 32,461	$ 29,643
Plan fiduciary net position as a percentage of total OPEB liability	68%	69%
Covered payroll	$ 3,581,847	$ 3,322,990
Net OPEB liability as a percentage of covered payroll	1%	1%

The plan years above are reported in the entity's financial statements in the fiscal year following the plan year - i.e., plan year 2018 was presented in the entity's fiscal year 2019 financial report.

This schedule is intended to show information for 10 years. Since fiscal year 2018 (plan year 2017) is the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

The Notes to Required Supplementary Information are an integral part of this schedule.

EXHIBIT 7

FREDERICK WATER

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY
June 30, 2019

Plan Year Ended June 30	Employer's Proportion of the Net OPEB Liability (Asset)	Employer's Proportionate Share of the Net OPEB Liability (Asset)	Employer's Covered Payroll	Employer's Proportionate Share of the Net OPEB Liability (Asset) as a Percentage of its Covered Payroll	Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability
Virginia Retirement System - Group Life Insurance - General Employees					
2018	0.01884%	$ 287,000	$ 3,581,847	8.01%	51.22%
2017	0.01805%	272,000	3,322,990	8.19%	48.86%

The plan years above are reported in the entity’s financial statements in the fiscal year following the plan year - e.g., plan year 2018 information was presented in the entity’s fiscal year 2019 financial report.

Schedule is intended to show information for 10 years. Since 2018 was the first year for this presentation, no earlier data is available. However, additional years will be included as they become available.

The Notes to Required Supplementary Information are an integral part of this schedule.

EXHIBIT 8

FREDERICK WATER

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REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF OPEB CONTRIBUTIONS
June 30, 2019

Entity Fiscal Year Ended June 30	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Employer's Covered Payroll	Contributions as a Percentage of Covered Payroll
VRS Health Insurance Credit General Employees					
2019	$ 5,230	$ 5,230	$ -	$ 3,736,155	0.14%
2018	5,014	5,014	-	3,581,847	0.14%
VRS Group Life Insurance - General Employees					
2019	$ 19,445	$ 19,445	$ -	$ 3,739,485	0.52%
2018	18,626	18,626	-	3,581,847	0.52%

Schedule is intended to show information for 10 years. Since 2018 was the first year for this presentation, only two years of data are available. Additional years will be included as they become available.

The covered payroll amounts above are for the Authority's fiscal year - i.e., the covered payroll on which required contributions were based for the same year.

The Notes to Required Supplementary Information are an integral part of this schedule.

Note 1. Changes of Benefit Terms

Pension

There have been no actuarially material changes to the Virginia Retirement System (System) benefit provisions since the prior actuarial valuation.

Other Postemployment Benefits (OPEB)

There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

Note 2. Changes of Assumptions

The following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study of the System for the four-year period ending June 30, 2016:

Largest 10 – Non-Hazardous Duty:

- Update mortality table
- Lowered in rates of service retirement
- Update withdrawal rates to better fit experience
- Lowered in rates of disability retirement
- No changes to salary rates
- Applicable to: Pension, GLI OPEB, and HIC OPEB

All Others (Non 10 Largest) – Non-Hazardous Duty:

- Update mortality table
- Lowered rates of retirement at older ages and changed final retirement from 70 to 75
- Update withdrawal rates to better fit experience
- Lowered disability rates
- No changes to salary rates
- Applicable to: Pension and GLI OPEB

COMPLIANCE SECTION

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
Frederick Water
Winchester, Virginia

We have audited, in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States, and *Specifications for Audits of Authorities, Boards, and Commissions* issued by the Auditor of Public Accounts of the Commonwealth of Virginia, the financial statements of Frederick Water (the "Authority"), as of and for the year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated October 10, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority'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 the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

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

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

Compliance and Other Matters

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

Purpose of this Report

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

Brown, Edwards & Company, S. L. P.

CERTIFIED PUBLIC ACCOUNTANTS

Harrisonburg, Virginia
October 10, 2019

FREDERICK WATER

SUMMARY OF COMPLIANCE MATTERS
June 30, 2019

As more fully described in the 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*, we performed tests of the Authority's compliance with certain provisions of laws, regulations, contracts, and grants shown below:

STATE COMPLIANCE MATTERS

Code of Virginia:
Cash and Investment Laws
Conflicts of Interest Act
Debt Provisions
Local Retirement Systems
Procurement Laws
Uniform Disposition of Unclaimed Property Act