MAHONING VALLEY SANITARY DISTRICT
TRUMBULL COUNTY

REGULAR AUDIT

FOR THE SIX MONTHS ENDED DECEMBER 31, 2018

OHIO AUDITOR OF STATE
KEITH FABER

MAHONING VALLEY SANITARY DISTRICT
TRUMBULL COUNTY
DECEMBER 31, 2018

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OHIO AUDITOR OF STATE
KEITH FABER

101 Central Plaza South
700 Chase Tower
Canton, Ohio 44702-1509
(330) 438-0617 or (800) 443-9272
EastRegion@ohioauditor.gov

INDEPENDENT AUDITOR'S REPORT

Mahoning Valley Sanitary District
Trumbull County
P.O. Box 4119
Youngstown, Ohio 44515

To the Board of Directors:

Report on the Financial Statements

We have audited the accompanying financial statements of the Mahoning Valley Sanitary District, Trumbull County, Ohio (the District), as of and for the six months ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for preparing and fairly presenting these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes designing, implementing, and maintaining internal control relevant to preparing and fairly presenting financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to opine on these financial statements based on our audit. We audited in accordance with auditing standards generally accepted in the United States of America and the financial audit standards in the Comptroller General of the United States' *Government Auditing Standards*. Those standards require us to plan and perform the audit to reasonably assure the financial statements are free from material misstatement.

An audit requires obtaining evidence about financial statement amounts and disclosures. The procedures selected depend on our judgment, including assessing the risks of material financial statement misstatement, whether due to fraud or error. In assessing those risks, we consider internal control relevant to the District's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not to the extent needed to opine on the effectiveness of the District's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of management's accounting policies and the reasonableness of their significant accounting estimates, as well as our evaluation of the overall financial statement presentation.

We believe the audit evidence we obtained is sufficient and appropriate to support our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Mahoning Valley Sanitary District, Trumbull County, Ohio, as of December 31, 2018, and the respective changes in financial position and cash flows thereof for the six months then ended in accordance with the accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require this presentation to include *management's discussion and analysis*, and schedules of net pension and other post-employment benefit liabilities and pension and other post-employment benefit contributions listed in the table of contents, to supplement the basic financial statements. Although this information is not part of the basic financial statements, the Governmental Accounting Standards Board considers it essential for placing the basic financial statements in an appropriate operational, economic, or historical context. We applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, consisting of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, to the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not opine or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to opine or provide any other assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 23, 2020, on our consideration of the District's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. That report describes the scope of our internal control testing over financial reporting and compliance, and the results of that testing, and does not opine 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 District's internal control over financial reporting and compliance.

Keith Faber
Auditor of State

Columbus, Ohio

June 23, 2020

The discussion and analysis of the Mahoning Valley Sanitary District's (the District) financial performance provides an overall review of the District's financial activities for the year ended December 31, 2018. The intent of this discussion and analysis is to look at the District's financial performance as a whole; readers should also review the transmittal letter, the basic financial statements as well as the notes to the basic financial statements to enhance their understanding of the District's financial performance.

Financial Highlights

Key financial highlights for 2018 are as follows:

- The District changed its reporting fiscal year end from June 30 to December 31. Therefore, this report presents the six month period of July 1, 2018 through December 31, 2018.

- The District's net position increased by $4,309,265 from fiscal year 2018. This increase is due to a significant increase in the District's capital assets coupled with a decrease in long-term liabilities.

- Capital assets increased from the prior fiscal year due to current year additions outpacing depreciation. Capital asset additions included additional work on several ongoing construction projects and some additions to equipment and vehicles. The District completed several construction projects that had been ongoing during this period.

- Long-term liabilities decreased as the District made an additional year of debt payments. Current year bond and loan payments exceeded the proceeds received for non-final OWDA loans.

Using This Comprehensive Annual Financial Report ("CAFR")

This annual report consists of financial statements and notes to those statements. These statements are presented following the requirements of Governmental Accounting Standards Board ("GASB") Statement No. 34, and are organized so the reader can understand the Mahoning Valley Sanitary District.

The *Statement of Net Position* and *Statement of Revenues, Expenses and Changes in Net Position* provide information about the activities of the District, and asks the questions, "Are we in a better financial position this year than last?" and "Why" or "Why not". The statements include *all assets and deferred outflows of resources* and *liabilities and deferred inflows of resources* using the *accrual basis of accounting* similar to the accounting used by most private-sector companies. This basis of accounting recognizes all of the current year's revenues and expenses regardless of when cash is received or paid.

The Sanitary District

Recall that the *Statement of Net Position* shows assets, liabilities, deferred outflows and inflows and the difference between them (net position).

Table 1 provides a summary of the District's net position for December 31, 2018 compared to fiscal year 2018:

Table 1
Net Position

	December 31, 2018	Fiscal Year 2018	Change
Assets			
Current and Other Assets	$40,572,442	$41,750,800	($1,178,358)
Noncurrent Assets:			
Net Pension Asset	31,345	31,345	0
Capital Assets, Net	69,931,743	68,699,850	1,231,893
Total Assets	110,535,530	110,481,995	53,535
Deferred Outflows of Resources			
Deferred Charge on Refunding	0	26,596	(26,596)
Pension	740,983	547,775	193,208
OPEB	157,382	154,741	2,641
Total Deferred Outflows of Resources	898,365	729,112	169,253
Liabilities			
Current and Other Liabilities	3,038,501	5,848,721	2,810,220
Long-Term Liabilities:			
Compensated Absences	215,873	218,341	2,468
Net Pension Liability	3,006,461	3,006,461	0
Net OPEB Liability	2,053,487	2,053,487	0
Water Revenue Bonds	0	12,264	12,264
OWDA Loans	38,891,701	40,153,226	1,261,525
Total Liabilities	47,206,023	51,292,500	4,086,477
Deferred Inflows of Resources			
Pension	874,168	874,168	0
OPEB	250,892	250,892	0
Total Deferred Inflows of Resources	1,125,060	1,125,060	0
Net Position			
Net Investment in Capital Assets	28,766,427	23,474,961	5,291,466
Restricted:			
Debt Service	106,104	2,696,074	(2,589,970)
Unrestricted	34,230,281	32,622,512	1,607,769
Total	$63,102,812	$58,793,547	$4,309,265

The net pension liability (NPL) is reported pursuant to GASB Statement 68, "Accounting and Financial Reporting for Pensions—an Amendment of GASB Statement 27." The net OPEB liability (NOL) is reported consistent with GASB Statement 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions." For reasons discussed below, many end users of this financial statement will gain a clearer understanding of the District's actual financial condition by adding deferred inflows related to pension and OPEB, the net pension liability and the net OPEB liability to the reported net position and subtracting the net pension asset and the deferred outflows related to pension and OPEB.

Governmental Accounting Standards Board standards are national and apply to all government financial reports prepared in accordance with generally accepted accounting principles. GASB 68 and GASB 75 take an earnings approach to pension and OPEB accounting; however, the nature of Ohio's statewide pension/OPEB plans and state law governing those systems requires additional explanation in order to properly understand the information presented in these statements.

GASB 68 and GASB 75 require the net pension liability (asset) and the net OPEB liability to equal the District's proportionate share of each plan's collective:

1. Present value of estimated future pension/OPEB benefits attributable to active and inactive employees' past service
2. Minus plan assets available to pay these benefits

GASB notes that pension and OPEB obligations, whether funded or unfunded, are part of the "employment exchange" – that is, the employee is trading his or her labor in exchange for wages, benefits, and the promise of a future pension and other postemployment benefits. GASB noted that the unfunded portion of this promise is a present obligation of the government, part of a bargained-for benefit to the employee, and should accordingly be reported by the government as a liability since they received the benefit of the exchange. However, the District is not responsible for certain key factors affecting the balance of these liabilities. In Ohio, the employee shares the obligation of funding pension benefits with the employer. Both employer and employee contribution rates are capped by State statute. A change in these caps requires action of both Houses of the General Assembly and approval of the Governor. Benefit provisions are also determined by State statute. The Ohio Revised Code permits, but does not require the retirement systems to provide healthcare to eligible benefit recipients. The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits.

The employee enters the employment exchange with the knowledge that the employer's promise is limited not by contract but by law. The employer enters the exchange also knowing that there is a specific, legal limit to its contribution to the retirement system. In Ohio, there is no legal means to enforce the unfunded liability of the pension/OPEB plan *as against the public employer*. State law operates to mitigate/lessen the moral obligation of the public employer to the employee, because all parties enter the employment exchange with notice as to the law. The retirement system is responsible for the administration of the pension and OPEB plans.

Most long-term liabilities have set repayment schedules or, in the case of compensated absences (i.e. sick and vacation leave), are satisfied through paid time-off or termination payments. There is no repayment schedule for the net pension liability or the net OPEB liability. As explained previously, changes in benefits, contribution rates, and return on investments affect the balance of these liabilities, but are outside the control of the local government. In the event that contributions, investment returns, and other changes are insufficient to keep up with required payments, State statute does not assign/identify the responsible party for the unfunded portion. Due to the unique nature of how the net pension liability and the net OPEB liability are satisfied, these liabilities are separately identified within the long-term liability section of the statement of net position.

In accordance with GASB 68 and GASB 75, the District's statements prepared on an accrual basis of accounting include an annual pension expense and an annual OPEB expense for their proportionate share of each plan's *change* in net pension liability (asset) and net OPEB liability, respectively, not accounted for as deferred inflows/outflows. These statements cover a six month period to facilitate the transition from a fiscal year to a calendar year for reporting purposes. The District's measurement date for NPL and NOL reporting purposes did not change; therefore, no pension expense or OPEB expense was incurred for this transition period.

There was an increase in capital assets because the District completed several major construction projects during the six month period, which resulted in a significant increase to depreciable capital assets from the prior fiscal year. There was an increase in deferred outflows of resources related to the net pension/OPEB liabilities due to additional payments subsequent to the measurement date being incurred during the transition period. This resulted in an overall increase in net position for the District. Total liabilities decreased from the prior fiscal year due to a decrease in outstanding debt due to additional debt payments.

In order to further understand what makes up the changes in net position for the current year, the following table gives readers further details regarding the results of activities for the current year. Table 2 shows operating revenues, operating expenses, non-operating revenues and expenses and changes in net position for the six month period of July through December 2018. Since this would be comparing six months of activity to a full year of activity, revenue and expense comparisons to fiscal year 2018 would not be meaningful. In future years, when comparable information is available, a comparative analysis will be presented.

Table 2
Changes in Net Position

	July - December 2018
Operating Revenues	
Charges for Services	$9,175,830
Miscellaneous	70,248
Total Operating Revenues	9,246,078
Operating Expenses	
Personal Services	1,712,291
Supplies and Services	1,309,919
Depreciation	1,601,180
Claims	306,177
Miscellaneous	6,868
Total Operating Expenses	4,936,435
Operating Income (Loss)	4,309,643
Non-Operating Revenues (Expenses)	
Timber Sales	$71,000
Royalties	16,736
Non-Operating Revenue	2,688
Non-Operating Expense	(2,116)
Loss on Disposal of Capital Assets	(31,775)
Interest	230,084
Interest and Fiscal Charges	(576,444)
Total Non-Operating Revenues (Expenses)	(289,827)
Income (Loss) before Capital Contributions	4,019,816
Capital Contributions	289,449
Change in Net Position	4,309,265
Net Position Beginning of Year	58,793,547
Net Position End of Year	$63,102,812

Capital Assets and Long-Term Obligations

Capital Assets

At the end of calendar year 2018, the District had, at cost, $118,394,108 invested in land, easements, construction in progress, land improvements, buildings and improvements, furniture and equipment, vehicles and infrastructure. That total carries an accumulated depreciation of $48,462,365.

From July through December of 2018, the District completed several ongoing construction projects and had other increases to equipment and vehicles. The District has a few major construction projects ongoing as of December 31, 2018. The District's completed projects include Valve Replacement Phase III, the Chemical Feed Project, Electrical Duct Bank Replacement Project and Venturi Project. The ongoing projects include Dam Renovations and Headhouse Chemical System Improvement. For additional information on capital assets, see Note 7 of the notes to the basic financial statements.

Long-Term Obligations

In July 2010, the District issued the Series 2010 Water Refunding Bonds in the amount of $27,030,000. These bonds were issued for the purpose of currently refunding the outstanding principal amount of the Series 1998 Refunding Bonds and the Series 1999 Refunding Bonds. These bonds were fully repaid in December 2018.

The District has several loans through the Ohio Water Development Authority (OWDA). As of December 31, 2018, the District has a total outstanding OWDA liability of $40,983,605. From July through December 2018, new OWDA loans of $8,325 were issued while the District made payments of $1,239,369.

For additional information on long-term obligations, see Note 11 of the notes to the basic financial statements.

Current Financial Related Activities

The District receives royalties from two gas wells that are located on District property. These wells were put on District property in the 1970's. No other wells have been drilled on District property since that time. Surrounding the District's property are many gas wells, some of which contribute to royalties that are received by the District. District revenues from royalties have remained fairly constant over the last five years but total gross receipts for gas royalties have lessened since reaching a high about seven years ago.

The Mahoning Valley Sanitary District has committed itself to the highest standards of financial excellence for many years. The District has received the Award for Small Government Cash Basis Reports from the Government Finance Officers Association for fiscal years 2014 through 2017 and the Certificate of Achievement for Excellence in Financial Reporting for its fiscal year 2018 CAFR. This report covering the six month period from July through December 2018 will not be submitted for GFOA review.

Contacting the District's Financial Management

This financial report is designed to provide the reader with a broad overview of the District's financial position, as well as a general understanding of the financial operations of the District. If you have any questions about this report or need additional financial information, contact Rhonda Lucivjansky, Secretary/Treasurer, Mahoning Valley Sanitary District, P.O. Box 4119, Youngstown, OH 44515, telephone 330-652-3614.

Mahoning Valley Sanitary District
Statement of Net Position
December 31, 2018

Assets	
Current Assets	
Cash and Cash Equivalents	$38,672,846
Restricted Assets:	
Cash and Cash Equivalents with Trustee	106,104
Receivables:	
Accounts	16,640
Intergovernmental	1,522,678
Materials and Supplies Inventory	146,411
Prepaid Items	107,763
Total Current Assets	40,572,442
Noncurrent Assets	
Net Pension Asset	31,345
Nondepreciable Capital Assets	4,438,025
Depreciable Capital Assets, Net	65,493,718
Total Noncurrent Assets	69,963,088
Total Assets	110,535,530
Deferred Outflows of Resources	
Pension	740,983
OPEB	157,382
Total Deferred Outflows of Resources	898,365
Liabilities	
Current Liabilities	
Accounts Payable	264,200
Accrued Wages	62,337
Contracts Payable	192,932
Intergovernmental Payable	80,434
Claims Payable	39,238
Compensated Absences Payable	307,456
OWDA Loans Payable	2,091,904
Total Current Liabilities	3,038,501
Long-Term Liabilities (net of current portion)	
Compensated Absences Payable	215,873
Net Pension Liability	3,006,461
Net OPEB Liability	2,053,487
OWDA Loans Payable	38,891,701
Total Long-Term Liabilities	44,167,522
Total Liabilities	47,206,023
Deferred Inflows of Resources	
Pension	874,168
OPEB	250,892
Total Deferred Inflows of Resources	1,125,060
Net Position	
Net Investment in Capital Assets	28,766,427
Restricted for:	
Debt Service	106,104
Unrestricted	34,230,281
Total Net Position	$63,102,812

See accompanying notes to the basic financial statements

Mahoning Valley Sanitary District

Statement of Revenues,
Expenses and Changes in Net Position
For the Six Month Period Ended December 31, 2018

Operating Revenues	
Charges for Services	$9,175,830
Miscellaneous	70,248
Total Operating Revenues	9,246,078
Operating Expenses	
Personal Services	1,712,291
Supplies and Services	1,309,919
Depreciation	1,601,180
Claims	306,177
Miscellaneous	6,868
Total Operating Expenses	4,936,435
Operating Income (Loss)	4,309,643
Non-Operating Revenues (Expenses)	
Timber Sales	71,000
Royalties	16,736
Miscellaneous - Non Operating Revenue	2,688
Miscellaneous - Non Operating Expense	(2,116)
Loss on Disposal of Capital Assets	(31,775)
Interest	230,084
Interest and Fiscal Charges	(576,444)
Total Non-Operating Revenues (Expenses)	(289,827)
Income (Loss) before Transfers and Capital Contributions	4,019,816
Capital Contributions	289,449
Change in Net Position	4,309,265
Net Position Beginning of Year	58,793,547
Net Position End of Year	$63,102,812

See accompanying notes to the basic financial statements

Mahoning Valley Sanitary District

Statement of Cash Flows

For the Six Month Period Ended December 31, 2018

Increase (Decrease) in Cash and Cash Equivalents	
Cash Flows from Operating and Non-Operating Activities	
Cash Received from Customers	$9,182,203
Cash Received from Timber Sales	71,000
Cash Received from Royalties	14,547
Cash Received from Non-Operating Revenues	2,688
Other Cash Received	94,430
Cash Payments to Employees for Services	(1,961,076)
Cash Payments to Suppliers for Goods and Services	(1,372,267)
Cash Payments for Claims	(302,098)
Cash Payments for Non-Operating Expenses	(2,116)
Other Cash Payments	(6,067)
Net Cash Provided by (Used for) Operating and Non-Operating Activities	5,721,244
Cash Flows from Capital and Related Financing Activities	
Capital Contributions	289,449
Proceeds of EPA/OWDA Loan	8,325
Redemption of Principal - Water Revenue Bonds	(2,580,000)
Interest and Fiscal Charges - Water Revenue Bonds	(38,700)
Redemption of Principal - OWDA Loans	(1,239,369)
Interest and Fiscal Charges - OWDA Loans	(529,862)
Acquisition of Capital Assets	(3,127,709)
Net Cash Provided by (Used for) Capital and Related Financing Activities	(7,217,866)
Cash Flows from Investing Activities	
Interest on Investments	230,084
Net Increase (Decrease) in Cash and Cash Equivalents	(1,266,538)
Cash and Cash Equivalents Beginning of Year	40,045,488
Cash and Cash Equivalents End of Year	$38,778,950

(continued)

Mahoning Valley Sanitary District
Statement of Cash Flows (continued)
For the Six Month Period Ended December 31, 2018

Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used for) Operating and Non-Operating Activities

Operating Income (Loss)	$4,309,643
Adjustment:	
Depreciation	1,601,180
Non-Operating Revenues (Expenses):	
Timber Sales	71,000
Royalties	14,547
Other Non-Operating Cash Received	2,688
Other Non-Operating Cash Payments	(2,116)
(Increase) Decrease in Assets and Deferred Outflows:	
Accounts Receivable	(8,901)
Intergovernmental Receivable	39,456
Materials and Supplies Inventory	(31,228)
Prepaid Items	(85,318)
Deferred Outflows - Pension	(193,208)
Deferred Outflows - OPEB	(2,641)
Increase (Decrease) in Liabilities:	
Accounts Payable	48,323
Accrued Wages	22,447
Contracts Payable	(48,911)
Compensated Absences Payable	(63,508)
Intergovernmental Payable	43,712
Claims Payable	4,079
Total Adjustments	1,411,601
Net Cash Provided by (Used for) Operating and Non-Operating Activities	$5,721,244

Noncash Capital Financing Activities

At December 31, 2018, the District had contracts payable related to the acquisition of capital assets of $181,711.

At June 30, 2018, the District had contracts payable and retainage payable related to the acquisition of capital assets of $156,994 and $287,578, respectively.

See accompanying notes to the basic financial statements

Note 1 - Description of the District and Reporting Entity

The Mahoning Valley Sanitary District, Trumbull County (the District), is a political subdivision of the State of Ohio and a body corporate created under Section 6115.08 of the Ohio Revised Code (The Sanitary District Act of Ohio) for the purpose of providing a water supply for domestic, municipal and public use to the Cities of Youngstown and Niles and the Village of McDonald.

On February 5, 1998, Substitute House Bill 26 was enacted to amend various sections of the Revised Code. This bill altered the composition and method of appointment of the members of the Board of Directors of the District, limited the compensation paid and benefits provided to board members; required the members of the Board to file financial disclosure statements with the Ohio Ethics Commission, and subjected the District to financial certification requirements prior to expending moneys.

The Board of Directors of the Mahoning Valley Sanitary District is made up of four members. One is appointed by the Mayor of the City of Youngstown, one by the Mayor of the City of Niles, one by the Youngstown City Council, and one by the Niles City Council.

The positions of Secretary and Treasurer were combined on January 15, 1997. The Secretary/Treasurer is the fiscal officer of the District as well as the custodian of the records of the District and its corporate seal.

The Chief Engineer is the superintendent of all the public works and improvements.

In evaluating how to define the District for financial reporting purposes, management has considered all agencies, departments and organizations making up the District and its potential component units consistent with Governmental Accounting Standards Board Statement No. 14, "The Financial Reporting Entity" and Governmental Accounting Standard Board (GASB) Statement No. 61, "The Financial Reporting Entity: Omnibus."

Component units are legally separate organizations for which the District is financially accountable. The District is financially accountable for an organization if the District appoints a voting majority of the organization's governing board and (1) the District is able to significantly influence the programs or services performed or provided by the organization; or (2) the District is legally entitled to or can otherwise access the organization's resources; the District is legally obligated or has otherwise assumed the responsibility to finance the deficits of, or provide financial support to, the organization; or the District is obligated for the debt of the organization. Component units may also include organizations that are fiscally dependent on District in that District approves the budget, the issuance of debt or the levying of taxes. The District has no component units.

Note 2 - Summary of Significant Accounting Policies

The financial statements of the Mahoning Valley Sanitary District have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The more significant of the District's accounting policies are described below.

Basis of Presentation

The District's basic financial statements consist of a statement of net position, a statement of revenues, expenses and changes in net position and a statement of cash flows.

The District uses enterprise accounting to maintain its financial records during the year. Enterprise accounting focuses on the determination of operating income, change in net position, financial position and cash flows. Enterprise accounting may be used to account for any activity for which a fee is charged to external uses for goods or services.

The District uses fund accounting to maintain its financial records during the year. A fund is defined as a fiscal and accounting entity with a self-balancing set of accounts. The operations of the District are reported as a single enterprise fund.

Measurement Focus

The enterprise fund is accounted for on a flow of economic resources measurement focus. All assets and deferred outflows of resources and all liabilities and deferred inflows of resources associated with the operation of the District are included on the statement of net position. The statement of changes in net position presents increases (i.e., revenues) and decreases (i.e., expenses) in total net position. The statement of cash flows provides information about how the District finances and meets the cash flow needs of its enterprise activity.

Basis of Accounting

Basis of accounting determines when transactions are recorded in the financial records and reported on the financial statements. The District's financial statements are prepared using the accrual basis of accounting. On the accrual basis, revenue is recorded on exchange transactions when the exchange takes place. Nonexchange transactions, in which the District receives value without directly giving equal value in return, include capital contributions. Expenses are recognized at the time they are incurred.

Deferred Outflows/Inflows of Resources In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense/expenditure) until then. For the District, deferred outflows of resources are reported on the statement of net position for pension and OPEB plans. The deferred outflows of resources related to pension and OPEB plans are explained in Notes 9 and 10.

In addition to liabilities, the statement of net position reports a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net position that applies to a future period and will not be recognized until that time. For the District, deferred inflows of resources include pension and OPEB. Deferred inflows of resources related to pension and OPEB plans are reported on the statement of net position (See Notes 9 and 10).

Pensions/Other Postemployment Benefits (OPEB)

For purposes of measuring the net pension/OPEB asset/liability, deferred outflows of resources and deferred inflows of resources related to pensions/OPEB, and pension/OPEB expense, information about the fiduciary net position of the pension/OPEB plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the pension/OPEB plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The pension/OPEB plans report investments at fair value.

Budgetary Process

Although the District reports a single enterprise fund, the Ohio Revised Code requires the District to account for its day-to-day activity using a maintenance fund and a bond fund. The maintenance fund accounts for all moneys received as compensation for providing a water supply for domestic, municipal and public use under

Section 6115.19, Ohio Revised Code. The bond fund accounts for proceeds of levies made against the special assessments of benefits equalized and confirmed under Section 6115.01 to 6115.79, inclusive, of the Ohio Revised Code. This fund is also used to account for financial resources to be used for the acquisition or construction of major capital facilities or equipment. This fund also receives all operating revenue due from the member Cities of Youngstown and Niles and from the Village of McDonald based on an approved water rate schedule.

The Ohio Revised Code requires that the maintenance fund be budgeted annually. The Mahoning Valley Sanitary District prepares a budget for the maintenance fund and the bond fund.

Budgetary expenses (that is, disbursements and encumbrances) may not exceed appropriations at the fund or function level of control, and appropriations may not exceed estimated resources. Appropriation authority includes current year appropriations plus encumbrances carried over from the prior year (if any). The Board of Directors must annually approve appropriation measures and subsequent amendments. Unencumbered appropriations lapse at year end.

Estimated resources include estimates of cash to be received (budgeted receipts) plus unencumbered cash as of January 1.

The Ohio Revised Code requires the District to reserve (encumber) appropriations when commitments are made. Encumbrances outstanding at year end are carried over and need not be re-appropriated.

Cash and Cash Equivalents

The District's cash and cash equivalents are considered to be cash on hand, demand deposits, savings accounts and short-term investments with original maturities of three months or less from the date of acquisition.

During 2018, the District's investments were limited to federated treasury money market accounts. The District values investments at fair value. The District classifies investments in money market funds as cash equivalents as they are highly liquid investments and part of the District's cash management activities.

Restricted Assets

Assets are reported as restricted when limitations on their use change in nature or normal understanding of the availability of the asset. Such constraints are either imposed by creditors, contributors, grantors or law of other governments or imposed by law through constitutional provisions.

Pursuant to a bond indenture, restricted assets include cash and cash equivalents with a trustee reserved for current and future debt service payments. Although the bonds were paid off during the six month period, the cash and cash equivalents remained with the trustee as of December 31, 2018. In 2019, an arbitrage rebate report was completed and, subsequently, the cash balances were released to the District.

Inventory

Inventories are presented at cost on a first-in, first-out basis and are expensed when used. Inventory consists of expendable supplies held for consumption.

Prepaid Items

Payments made to vendors for services that will benefit periods beyond December 31, 2018 are recorded as prepaid items using the consumption method by recording a current asset for the prepaid amount and reflecting the expense in the year in which services are consumed.

Capital Assets

All capital assets are capitalized at cost (or estimated historical cost) and updated for additions and retirements during the fiscal year. Donated capital assets are recorded at their acquisition values as of the date received. The District maintains a capitalization threshold of five thousand dollars. Improvements are capitalized; the costs of normal maintenance and repairs that do not add to the value of the asset or materially extend an asset's life are not.

All reported capital assets except land, easements and construction in progress are depreciated. Improvements are depreciated over the remaining useful lives of the related capital assets. Useful lives for infrastructure were estimated based on the District's historical records of necessary improvements and replacement. Depreciation is computed using the straight-line method over the following useful lives:

Description	Governmental Activities Estimated Lives
Land Improvements	20 years
Buildings and Improvements	20 - 40 years
Furniture and Equipment	5 - 10 years
Vehicles	5 years
Infrastructure	25 - 50 years

The District's infrastructure consists of waterlines, the dam and roads within the District's property. All infrastructure acquired by the District since its inception is recorded.

Compensated Absences

Vacation benefits are accrued as a liability as the benefits are earned if the employees' rights to receive compensation are attributable to services already rendered and it is probable that the employer will compensate the employees for the benefits through paid time off or some other means. The District records a liability for accumulated unused vacation time when earned for all employees with more than one year of service.

Sick leave benefits are accrued as a liability using the vesting method. The liability includes the employees who are currently eligible to receive termination benefits and those that the District has identified as probable of receiving payment in the future (those employees who will be eligible to receive termination payments in the next twenty years). The amount is based on accumulated sick leave and employee wage rates at year end taking into consideration any limits specified in the District's termination policy.

Bond Premiums

On the government-wide financial statements, bond premiums are deferred and amortized over the term of the bonds using the effective-interest method. Bond premiums are presented as an increase of the face amount of the general obligation bonds payable.

Under Ohio law, premiums on the original issuance of debt are to be used for debt retirement and are precluded from being applied to project fund costs. Ohio law does allow premiums on refunding debt to be used as part of the payment to the bond escrow agent.

Contributions of Capital

Contributions of capital in the financial statements arise from contributions of resources restricted to capital acquisition and construction.

Net Position

Net position represents the difference between all other elements in a statement of financial position. Net investment in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowings used for the acquisition, construction or improvement of those assets. Net position is reported as restricted when there are limitations imposed on their use through external restrictions imposed by creditors, grantors or laws or regulations of other governments. The District applies restricted resources first when an expense is incurred for purposes for which both restricted and unrestricted net position is available.

Operating Revenues and Expenses

Operating revenues are those revenues that are generated directly from the primary activity of the enterprise fund. For the District, these revenues are charges for services and certain revenues collected through the special assessment process. Operating expenses are necessary costs that have been incurred in order to provide the good or service that is the primary activity of the fund. Any revenues and expenses not meeting the definitions of operating are reported as non-operating.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

Note 3 - Deposits and Investments

Monies held by the District are classified by State statute into three categories.

Active monies are public monies determined to be necessary to meet current demands upon the District treasury. Active monies must be maintained either as cash in the District treasury, in commercial accounts payable or withdrawable on demand, including negotiable order of withdrawal (NOW) accounts, or in money market deposit accounts.

Inactive deposits are public deposits that the Board has identified as not required for use within the current five year period of designation of depositories. Inactive deposits must either be evidenced by certificates of deposit maturing not later than the end of the current period of designation of depositories, or by savings or deposit accounts including, but not limited to, passbook accounts.

Interim deposits are deposits of interim monies. Interim monies are those monies which are not needed for immediate use but which will be needed before the end of the current period of designation of depositories. Interim deposits must be evidenced by time certificates of deposit maturing not more than one year from the date of deposit or by savings or deposit accounts, including passbook accounts.

Interim monies held by the District can be deposited or invested in the following securities:

1. United States Treasury bills, bonds, notes, or any other obligation or security issued by the United States Treasury, or any other obligation guaranteed as to principal and interest by the United States;

2. Bonds, notes, debentures, or any other obligations or securities issued by any federal government agency or instrumentality including, but not limited to, the Federal National Mortgage Association, Federal Home Loan Bank, Federal Farm Credit Bank, Federal Home Loan Mortgage Corporation, and Government National Mortgage Association. All federal agency securities shall be direct issuances of federal government agencies or instrumentalities;

3. No-load money market mutual funds consisting exclusively of obligations described in (1) or (2) and repurchase agreements secured by such obligations, provided that investments in securities described in this division are made only through eligible institutions;

4. Time certificates of deposit or savings or deposit accounts including, but not limited to, passbook accounts;

5. Bonds and other obligations of the State of Ohio, and, with certain limitations including a requirement for maturity within ten years from the date of settlement, bonds and other obligations of political subdivisions of the State of Ohio, if training requirements have been met;

6. The State Treasurer's investment pool (STAR Ohio);

7. Certain bankers' acceptances (for a period not to exceed one hundred eighty days) and commercial paper notes (for a period not to exceed two hundred seventy days) in an amount not to exceed 40 percent of the interim monies available for investment at any one time if training requirements have been met; and

8. Written repurchase agreements in the securities described in (1) or (2) provided the market value of the securities subject to the repurchase agreement must exceed the principal value of the agreement by at least two percent and be marked to market daily, and the term of the agreement must not exceed thirty days.

Investments in stripped principal or interest obligations, reverse repurchase agreements, and derivatives are prohibited. The issuance of taxable notes for the purpose of arbitrage, the use of leverage, and short selling are also prohibited. Except as noted above, an investment must mature within five years from the date of purchase, unless matched to a specific obligation or debt of the District, and must be purchased with the expectation that it will be held to maturity.

Investments may only be made through specified dealers and institutions. Payment for investments may be made only upon delivery of the securities representing the investments to the treasurer or, if the securities are not represented by a certificate, upon receipt of confirmation of transfer from the custodian.

Deposits

Custodial Credit Risk Custodial credit risk for deposits is the risk that in the event of bank failure, the District will not be able to recover deposits or collateral securities that are in possession of an outside party. At December 31, 2018, $15,101,150 of the District's bank balance of $38,702,463 was exposed to custodial credit risk because those deposits were uninsured and uncollateralized. The District's financial institution participates in the Ohio Pooled Collateral System (OPCS) and was approved for a reduced collateral floor of 50 percent resulting in the uninsured and uncollateralized balance.

The District has no deposit policy for custodial risk beyond the requirements of State statute. Ohio law requires that deposits be either insured or be protected by:

Eligible securities pledged to the District and deposited with a qualified trustee by the financial institution as security for repayment whose market value at all times shall be at least one hundred five percent of the deposits being secured; or

Participation in the Ohio Pooled Collateral System (OPCS), a collateral pool of eligible securities deposited with a qualified trustee and pledged to the Treasurer of State to secure the repayment of all public monies deposited in the financial institution. OPCS requires the total market value of the securities pledged to be one hundred two percent of the deposits being secured or a rate set by the Treasurer of State.

At year end, the District had $200 in undeposited cash on hand which is included as part of "Equity in Pooled Cash and Cash Equivalents".

Investments

The District reports their investments at fair value. As of December 31, 2018, the District had a Level Two input investment in federated treasury money market accounts with a fair value of $106,104 and a maturity of less than one year. The District 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; Level 3 inputs are significant unobservable inputs. The District's investments measured at fair value are valued using methodologies that incorporate market inputs such as benchmark yields, reported trades, broker/dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers and reference data including market research publications. Market indicators and industry and economic events are also monitored, which could require the need to acquire further market data. (Level 2 inputs).

Interest Rate Risk As a means of limiting its exposure to fair value losses caused by rising interest rates, the District's investment policy requires that operating funds be invested primarily in short-term investments maturing within five years from the date of purchase and that the District's investment portfolio be structured so that the securities mature to meet cash requirements for ongoing operations and/or long-term debt payments. The stated intent of the policy is to avoid the need to sell securities prior to maturity. To date, no investments have been purchased with a life greater than two years.

Credit Risk The Moody's rating of the District's investment is Aaa. The District has no investment policy that addresses credit risk.

Concentration of Credit Risk The District places no limit on the amount it may invest in any one issuer.

Note 4 - Receivables

Receivables at December 31, 2018, consisted of charges for services, royalties and Bureau of Workers' Compensation and Magellan insurance refunds. All receivables are considered collectible in full. All receivables are expected to be collected within one year.

A summary of principal items of intergovernmental receivables follows:

	Amount
City of Youngstown Water Billing	$1,051,699
City of Niles Water Billing	437,950
Village of McDonald Water Billing	32,207
Bureau of Workers' Compensation Refund	822
Total	$1,522,678

Note 5 - Compensated Absences

The criteria for determining vacation and sick leave benefits are derived from negotiated agreements and State laws. Service and maintenance employees and patrolmen earn ten to thirty-five days of vacation per year, depending upon length of service and hours worked. Accumulated unused vacation time is paid to classified employees upon termination of employment. Each employee earns sick leave at a rate of one and one-fourth days per month. Upon retirement or termination after ten years of consecutive service, payment is made for one half of the employee's accrued but unused sick days up to one half of 180 days. The maximum number of days to be paid out is 90 days. For purposes of retirement, the employee receiving such payment must meet the eligibility requirement provisions set by OPERS.

Note 6 - Contingencies

Grants

The District receives financial assistance from state agencies in the form of grants. The disbursement of funds received under these programs generally requires compliance with terms and conditions specified in the grant agreements and are subject to audit by the grantor agencies. Any disallowed claims resulting from such audits could become a liability of the District's operating fund or any other applicable funds. However, in the opinion of management, any such disallowed claims will not have a material adverse effect on the overall financial position of the District at December 31, 2018.

Litigation

The District is a party to legal proceedings. The District is of the opinion that ultimate disposition of claims will not have a material effect, if any, on the financial condition of the District.

Note 7 - Capital Assets

Capital asset activity for the fiscal year ended December 31, 2018, was as follows:

	Balance 6/30/18	Additions	Deletions	Balance 12/31/18
Business-Type Activities				
Capital Assets, not being depreciated:				
Land	$1,879,335	$0	$0	$1,879,335
Easements	36,908	0	0	36,908
Construction in Progress	14,292,932	2,577,797	(14,348,947)	2,521,782
Total Capital Assets, not being depreciated	16,209,175	2,577,797	(14,348,947)	4,438,025
Capital Assets, being depreciated:				
Land Improvements	452,624	0	0	452,624
Buildings and Improvements	70,172,350	6,324,843	0	76,497,193
Furniture and Equipment	3,205,510	52,404	(41,000)	3,216,914
Vehicles	611,162	234,647	0	845,809
Infrastructure	24,919,439	8,024,104	0	32,943,543
Total Capital Assets, being depreciated	99,361,085	14,635,998	(41,000)	113,956,083
Less Accumulated Depreciation:				
Land Improvements	(197,415)	(9,434)	0	(206,849)
Buildings and Improvements	(30,975,689)	(966,792)	0	(31,942,481)
Furniture and Equipment	(2,351,940)	(63,745)	9,225	(2,406,460)
Vehicles	(509,682)	(33,037)	0	(542,719)
Infrastructure	(12,835,684)	(528,172)	0	(13,363,856)
Total Accumulated Depreciation	(46,870,410)	(1,601,180)	9,225	(48,462,365)
Total Capital Assets, being depreciated, net	52,490,675	13,034,818	(31,775)	65,493,718
Business-Type Activities Capital Assets, Net	$68,699,850	$15,612,615	($14,380,722)	$69,931,743

Note 8 - Risk Management

Property and Liability

The District is exposed to various risks of loss to torts; thefts of, damage to and destruction of assets; errors and omissions; injuries to employees and natural disaster. During 2018, the District contracted with Love Insurance for various types of insurance coverage as follows:

Type	Coverage	Deductible
Property/Inland Marine	$194,250,000	$10,000
Earthquake	1,000,000	100,000
Flood	1,000,000	100,000
Liability	6,000,000/8,000,000	2,500
Fleet Vehicle		
Physical Damage	50,000	500
Comprehensive	50,000	250

Settled claims have not exceeded this commercial coverage in any of the past three years. There have been no significant reductions in coverage from last year.

Employee Benefits

The District provides health insurance to its employees. The District provides these benefits through a partially self-funded medical and drug benefits program. The District provides hospitalization and drug benefit coverage as outlined in the ERISA document provided to all employees which includes the Summary of Benefits and Coverage of our named plan, the Mahoning Valley Sanitary District Employee Benefits Plan. Medical Mutual of Ohio is the medical provider network and Mutual Health Services, Inc. as third party administrator for claims. The District also has a contract with HCC Life Insurance Company; a reinsurer to protect the District against catastrophic illness situations. The District's monthly premium, which is paid to Mutual Health Services, provides for stop loss coverage and administration of all claims. The District has stop loss coverage set at $40,000 per member of our plan which includes all employees, their spouses and dependents. The District is responsible for all claims up to that point on all of its covered members. All stop loss premiums and claims are paid from the internal service account of the District and receives its funding from the revenue stream of the District. The hospitalization budget is established at January 1 of each year.

The claims liability of $39,238 reported at December 31, 2018, is based on an estimate provided by the Treasurer and the requirements of Governmental Accounting Standards Board Statement No. 30 which requires that a liability for unpaid claims costs, including estimates of costs relating to incurred but not reported claims, be reported. The estimate was not affected by incremental claim adjustment expenses and does not include other allocated or unallocated claim adjustment expenses.

Changes in the fund's claims liability amount follows:

	Beginning Balance	Current Claims	Claim Payments	Ending Balance
Fiscal Year June 30, 2018	$19,789	$563,761	$548,391	$35,159
December 31, 2018	35,159	306,177	302,098	39,238

The average monthly cost per covered employee for stop loss protection and administration of claims is $482. The six month premium for stop loss coverage and claims administration is $144,524.

Workers' compensation is provided by the State. The District pays the State Workers' Compensation System a premium based on a rate per $100 of salaries. This rate is calculated based on accident history and administrative costs.

Note 9 – Defined Benefit Pension Plans

The Statewide retirement systems provide both pension benefits and other postemployment benefits (OPEB).

Net Pension Liability (Asset)/Net OPEB Liability

The net pension liability (asset) and the net OPEB liability reported on the statement of net position represent liabilities to employees for pensions and OPEB, respectively. Pensions/OPEB are a component of exchange transactions-–between an employer and its employees—of salaries and benefits for employee services. Pensions/OPEB are provided to an employee—on a deferred-payment basis—as part of the total compensation package offered by an employer for employee services each financial period. The obligation to sacrifice resources for pensions is a present obligation because it was created as a result of employment exchanges that already have occurred.

The net pension/OPEB liability (asset) represent the District's proportionate share of each pension/OPEB plan's collective actuarial present value of projected benefit payments attributable to past periods of service, net of each pension/OPEB plan's fiduciary net position. The net pension/OPEB liability (asset) calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments and others. While these estimates use the best information available, unknowable future events require adjusting these estimates annually.

Ohio Revised Code limits the District's obligation for this liability to annually required payments. The District cannot control benefit terms or the manner in which pensions are financed; however, the District does receive the benefit of employees' services in exchange for compensation including pension and OPEB.

GASB 68/75 assumes the liability is solely the obligation of the employer, because (1) they benefit from employee services; and (2) State statute requires funding to come from these employers. All pension contributions to date have come solely from these employers (which also includes pension costs paid in the form of withholdings from employees). The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits. In addition, health care plan enrollees pay a portion of the health care costs in the form of a monthly premium. State statute requires the retirement systems to amortize unfunded pension liabilities within 30 years. If the pension amortization period exceeds 30 years, each retirement system's board must propose corrective action to the State legislature. Any resulting legislative change to benefits or funding could significantly affect the net pension/OPEB liability (asset). Resulting adjustments to the net pension/OPEB liability (asset) would be effective when the changes are legally enforceable. The Ohio Revised Code permits, but does not require the retirement systems to provide healthcare to eligible benefit recipients.

The proportionate share of each plan's unfunded benefits is presented as a *net pension asset* or a long-term *net pension/OPEB liability* on the accrual basis of accounting. Any liability for the contractually-required pension/OPEB contribution outstanding at the end of the year is included in *intergovernmental payable* on both the accrual and modified accrual bases of accounting. The remainder of this note includes the required pension disclosures. See Note 10 for the required OPEB disclosures.

Plan Description – Ohio Public Employees Retirement System (OPERS)

Plan Description - District employees participate in the Ohio Public Employees Retirement System (OPERS). OPERS administers three separate pension plans. The traditional pension plan is a cost-sharing, multiple-employer defined benefit pension plan. The member-directed plan is a defined contribution plan and the combined plan is a combination cost-sharing, multiple-employer defined benefit/defined contribution pension plan.

OPERS provides retirement, disability, survivor and death benefits, and annual cost of living adjustments to members of the traditional and combined plans. Authority to establish and amend benefits is provided by Chapter 145 of the Ohio Revised Code. OPERS issues a stand-alone financial report that includes financial statements, required supplementary information and detailed information about OPERS' fiduciary net position that may be obtained by visiting https://www.opers.org/financial/reports.shtml, by writing to the Ohio Public Employees Retirement System, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling 800-222-7377.

Senate Bill (SB) 343 was enacted into law with an effective date of January 7, 2013. In the legislation, members in the tradition and combined plans were categorized into three groups with varying provisions of the law applicable to each group. The following table provides age and service requirements for retirement and the retirement formula applied to final average salary (FAS) for the three member groups under the traditional and combined plans as per the reduced benefits adopted by SB 343 (see OPERS CAFR referenced above for additional information, including requirements for reduced and unreduced benefits):

Group A Eligible to retire prior to January 7, 2013 or five years after January 7, 2013	**Group B** 20 years of service credit prior to January 7, 2013 or eligible to retire ten years after January 7, 2013	**Group C** Members not in other Groups and members hired on or after January 7, 2013
State and Local	**State and Local**	**State and Local**
Age and Service Requirements: Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	**Age and Service Requirements:** Age 60 with 60 months of service credit or Age 55 with 25 years of service credit	**Age and Service Requirements:** Age 57 with 25 years of service credit or Age 62 with 5 years of service credit
Traditional Plan Formula: 2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	**Traditional Plan Formula:** 2.2% of FAS multiplied by years of service for the first 30 years and 2.5% for service years in excess of 30	**Traditional Plan Formula:** 2.2% of FAS multiplied by years of service for the first 35 years and 2.5% for service years in excess of 35
Combined Plan Formula: 1% of FAS multiplied by years of service for the first 30 years and 1.25% for service years in excess of 30	**Combined Plan Formula:** 1% of FAS multiplied by years of service for the first 30 years and 1.25% for service years in excess of 30	**Combined Plan Formula:** 1% of FAS multiplied by years of service for the first 35 years and 1.25% for service years in excess of 35

Final average Salary (FAS) represents the average of the three highest years of earnings over a member's career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member's career.

Members who retire before meeting the age and years of service credit requirement for unreduced benefits receive a percentage reduction in the benefit amount.

When a traditional plan benefit recipient has received benefits for 12 months, an annual cost of living adjustment (COLA) is provided. This COLA is calculated on the base retirement benefit at the date of retirement and is not compounded. Members retiring under the combined plan receive a cost–of–living adjustment of the defined benefit portion of their pension benefit. For those retiring prior to January 7, 2013, the COLA will continue to be a 3 percent simple annual COLA. For those retiring subsequent to January 7, 2013, beginning in calendar year 2019, the COLA will be based on the average percentage increase in the Consumer Price Index, capped at 3 percent.

Defined contribution plan benefits are established in the plan documents, which may be amended by the Board. Member-directed plan and combined plan members who have met the retirement eligibility requirements may apply for retirement benefits. The amount available for defined contribution benefits in the combined plan consists of the member's contributions plus or minus the investment gains or losses resulting from the member's investment selections. Combined plan members wishing to receive benefits must meet the requirements for both the defined benefit and defined contribution plans. Member-directed participants must have attained the age of 55, have money on deposit in the defined contribution plan and have terminated public service to apply for retirement benefits. The amount available for defined contribution benefits in the member-directed plan consists of the members' contributions, vested employer contributions and investment gains or losses resulting from the members' investment selections. Employer contributions and associated investment earnings vest over a five-year period, at a rate of 20 percent each year. At retirement, members may select one of several distribution options for payment of the vested balance in their individual OPERS accounts. Options include the purchase of a monthly defined benefit annuity from OPERS (which includes joint and survivor options), partial lump-sum payments (subject to limitations), a rollover of the vested account balance to another financial institution, receipt of entire account balance, net of taxes withheld, or a combination of these options.

Funding Policy - The Ohio Revised Code (ORC) provides statutory authority for member and employer contributions as follows:

	State and Local
2018 Statutory Maximum Contribution Rates	
Employer	14.0 %
Employee *	10.0 %
2018 Actual Contribution Rates	
Employer:	
Pension **	14.0 %
Post-employment Health Care Benefits **	0.0
Total Employer	14.0 %
Employee	10.0 %

* Member contributions within the combined plan are not used to fund the defined benefit retirement allowance.

** These pension and employer health care rates are for the traditional and combined plans. The employer contributions rate for the member-directed plan is allocated 4 percent for health care with the remainder going to pension.

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll.

For the interim period of July through December 2018, the District's contractually required contribution was $186,320 for the traditional plan, $6,888 for the combined plan and $6,604 for the member-directed plan. Of these amounts, $7,947 is reported as an intergovernmental payable for the traditional plan, $298 for the combined plan, and $344 for the member-directed plan.

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

The net pension liability (asset) for OPERS was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability (asset) was determined by an actuarial valuation as of that date. The District's proportion of the net pension liability (asset) was based on the District's share of contributions to the pension plan relative to the contributions of all participating entities. Following is information related to the proportionate share and pension expense of the District's defined benefit pension plans:

	OPERS Traditional Plan	OPERS Combined Plan	Total
Proportion of the Net Pension Liability/Asset:			
Current Measurement Date	0.01916400%	0.02302500%	
Prior Measurement Date	0.02064600%	0.02366100%	
Change in Proportionate Share	-0.00148200%	-0.00063600%	
Proportionate Share of the:			
Net Pension Liability	$3,006,461	$0	$3,006,461
Net Pension Asset	0	31,345	31,345

These statements cover a six month period to facilitate the transition from a fiscal year to a calendar year for reporting purposes. The District's measurement date for NPL reporting purposes did not change; therefore, no pension expense was incurred for this transition period.

At December 31, 2018, the District reported deferred outflows of resources and deferred inflows of resources related to defined benefit pensions from the following sources:

	OPERS Traditional Plan	OPERS Combined Plan	Total
Deferred Outflows of Resources			
Differences between expected and actual experience	$3,071	$0	$3,071
Changes of assumptions	359,292	2,739	362,031
Changes in proportion and differences between District contributions and proportionate share of contributions	0	308	308
District contributions subsequent to the measurement date	361,991	13,582	375,573
Total Deferred Outflows of Resources	$724,354	$16,629	$740,983
Deferred Inflows of Resources			
Differences between expected and actual experience	$59,248	$9,338	$68,586
Net difference between projected and actual earnings on pension plan investments	645,447	4,945	650,392
Changes in proportion and differences between District contributions and proportionate share of contributions	155,190	0	155,190
Total Deferred Inflows of Resources	$859,885	$14,283	$874,168

$375,573 reported as deferred outflows of resources related to pension resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability or increase to the net pension asset in 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

	OPERS Traditional Plan	OPERS Combined Plan	Total
Year Ending December 31:			
2019	$189,900	($1,536)	$188,364
2020	(137,977)	(1,671)	(139,648)
2021	(284,221)	(2,779)	(287,000)
2022	(265,224)	(2,662)	(267,886)
2023	0	(925)	(925)
Thereafter	0	(1,663)	(1,663)
Total	($497,522)	($11,236)	($508,758)

Actuarial Assumptions - OPERS

Actuarial valuations of an ongoing plan involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation. The total pension liability was determined by an actuarial valuation as of December 31, 2017, using the following actuarial assumptions applied to all periods included in the measurement in accordance with the requirements of GASB 67. Key methods and assumptions used in the latest actuarial valuation, reflecting experience study results, prepared as of December 31, 2017, are presented below.

	OPERS Traditional Plan	OPERS Combined Plan
Wage Inflation	3.25 percent	3.25 percent
Future Salary Increases, including inflation	3.25 to 10.75 percent including wage inflation	3.25 to 8.25 percent including wage inflation
COLA or Ad Hoc COLA:		
Pre-January 7, 2013 Retirees	3 percent, simple	3 percent, simple
Post-January 7, 2013 Retirees	3 percent, simple through 2018, then 2.15 percent, simple	3 percent, simple through 2018, then 2.15 percent, simple
Investment Rate of Return	7.5 percent	7.5 percent
Actuarial Cost Method	Individual Entry Age	Individual Entry Age

Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

The most recent experience study was completed for the five year period ended December 31, 2015.

The long-term rate of return on defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

During 2017, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio, and the Defined Contribution portfolio. The Defined Benefit portfolio contains the investment assets for the Traditional Pension Plan, the defined benefit component of the Combined Plan and the annuitized accounts of the Member-Directed Plan. Within the Defined Benefit portfolio, contributions into the plans are all recorded at the same time, and benefit payments all occur on the first of the month. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Defined Benefit portfolio was 16.82 percent for 2017.

The allocation of investment assets with the Defined Benefit portfolio is approved by the Board of Trustees as outlined in the annual investment plan. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the defined benefit pension plans. The table below displays the Board-approved asset allocation policy for 2017 and the long-term expected real rates of return:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	23.00 %	2.20 %
Domestic Equities	19.00	6.37
Real Estate	10.00	5.26
Private Equity	10.00	8.97
International Equities	20.00	7.88
Other investments	18.00	5.26
Total	100.00 %	5.66 %

Discount Rate The discount rate used to measure the total pension liability was 7.5 percent for the traditional plan and the combined plan. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefits payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the District's Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate The following table presents the District's proportionate share of the net pension liability (asset) calculated using the current period discount rate assumption of 7.5 percent, as well as what the District's proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is one-percentage-point lower (6.5 percent) or one-percentage-point higher (8.5 percent) than the current rate:

	1% Decrease (6.50%)	Discount Rate (7.50%)	1% Increase (8.50%)
District's proportionate share of the net pension liability (asset)			
OPERS Traditional Plan	$5,338,707	$3,006,461	$1,062,069
OPERS Combined Plan	(17,039)	(31,345)	(41,215)

Changes between Measurement Date and Report Date

In October 2018, the OPERS Board adopted a change in the investment return assumption, reducing it from 7.5 percent to 7.2 percent. This change will be effective for the 2018 valuation. The exact amount of the impact to the District's net pension liability is not known.

Note 10 - Defined Benefit OPEB Plans

See Note 9 for a description of the net OPEB liability

Plan Description – Ohio Public Employees Retirement System (OPERS)

Plan Description - The Ohio Public Employees Retirement System (OPERS) administers three separate pension plans: the traditional pension plan, a cost-sharing, multiple-employer defined benefit pension plan; the member-directed plan, a defined contribution plan; and the combined plan, a cost-sharing, multiple-employer defined benefit pension plan that has elements of both a defined benefit and defined contribution plan.

OPERS maintains a cost-sharing, multiple-employer defined benefit post-employment health care trust, which funds multiple health care plans including medical coverage, prescription drug coverage and deposits to a Health Reimbursement Arrangement to qualifying benefit recipients of both the traditional pension and the combined plans. This trust is also used to fund health care for member-directed plan participants, in the form of a Retiree Medical Account (RMA). At retirement or refund, member directed plan participants may be eligible for reimbursement of qualified medical expenses from their vested RMA balance.

In order to qualify for postemployment health care coverage, age and service retirees under the traditional pension and combined plans must have twenty or more years of qualifying Ohio service credit. Health care coverage for disability benefit recipients and qualified survivor benefit recipients is available. The health care coverage provided by OPERS meets the definition of an Other Post Employment Benefit (OPEB) as described in GASB Statement 75. See OPERS' CAFR referenced below for additional information.

The Ohio Revised Code permits, but does not require OPERS to provide health care to its eligible benefit recipients. Authority to establish and amend health care coverage is provided to the Board in Chapter 145 of the Ohio Revised Code.

Disclosures for the health care plan are presented separately in the OPERS financial report. Interested parties may obtain a copy by visiting https://www.opers.org/financial/reports.shtml, by writing to OPERS, 277 East Town Street, Columbus, Ohio 43215-4642, or by calling (614) 222-5601 or 800-222-7377.

Funding Policy - The Ohio Revised Code provides the statutory authority requiring public employers to fund postemployment health care through their contributions to OPERS. When funding is approved by OPERS Board of Trustees, a portion of each employer's contribution to OPERS is set aside to fund OPERS health care plans.

Employer contribution rates are expressed as a percentage of the earnable salary of active members. In 2018, state and local employers contributed at a rate of 14.0 percent of earnable salary and public safety and law enforcement employers contributed at 18.1 percent. These are the maximum employer contribution rates permitted by the Ohio Revised Code. Active member contributions do not fund health care.

Each year, the OPERS Board determines the portion of the employer contribution rate that will be set aside to fund health care plans. The portion of employer contributions allocated to health care for members in the Traditional Pension Plan and Combined Plan was 1.0 percent during calendar year 2017. As recommended by OPERS' actuary, the portion of employer contributions allocated to health care beginning January 1, 2018 decreased to 0 percent for both plans. The OPERS Board is also authorized to establish rules for the retiree or their surviving beneficiaries to pay a portion of the health care provided. Payment amounts vary depending on the number of covered dependents and the coverage selected. The employer contribution as a percentage of covered payroll deposited into the RMA for participants in the Member-Directed Plan for 2018 was 4.0 percent.

Employer contribution rates are actuarially determined and are expressed as a percentage of covered payroll. The District's contractually required contribution was $2,641 for the interim period July through December 2018. Of this amount, $138 is reported as an intergovernmental payable.

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

The net OPEB liability and total OPEB liability for OPERS were determined by an actuarial valuation as of December 31, 2016, rolled forward to the measurement date of December 31, 2017, by incorporating the expected value of health care cost accruals, the actual health care payment, and interest accruals during the year. The District's proportion of the net OPEB liability was based on the District's share of contributions to the retirement plan relative to the contributions of all participating entities. Following is information related to the proportionate share and OPEB expense:

	OPERS
Proportion of the Net OPEB Liability:	
Current Measurement Date	0.0189100%
Prior Measurement Date	0.0203430%
Change in Proportionate Share	-0.0014330%
Proportionate Share of the Net Pension Liability	$2,053,487

These statements cover a six month period to facilitate the transition from a fiscal year to a calendar year for reporting purposes. The District's measurement date for NOL reporting purposes did not change; therefore, no OPEB expense was incurred for this transition period.

At December 31, 2018, the District reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	OPERS
Deferred Outflows of Resources	
Differences between expected and actual experience	$1,600
Changes of assumptions	149,516
District contributions subsequent to the measurement date	6,266
Total Deferred Outflows of Resources	$157,382
Deferred Inflows of Resources	
Net difference between projected and actual earnings on OPEB plan investments	$152,971
Changes in proportion and differences between District contributions and proportionate share of contributions	97,921
Total Deferred Inflows of Resources	$250,892

$6,266 reported as deferred outflows of resources related to OPEB resulting from District contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

	OPERS
Year Ending December 31:	
2019	($12,811)
2020	(12,811)
2021	(35,912)
2022	(38,242)
Total	($99,776)

Actuarial Assumptions - OPERS

Actuarial valuations of an ongoing plan involve estimates of the values of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and cost trends. Actuarially determined amounts are subject to continual review or modification as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan and include the types of coverage provided at the time of each valuation and the historical pattern of sharing of costs between OPERS and plan members. The total OPEB liability was determined by an actuarial valuation as of December 31, 2016, rolled forward to the measurement date of December 31, 2017. The actuarial valuation used the following actuarial assumptions applied to all prior periods included in the measurement in accordance with the requirements of GASB 74:

Wage Inflation	3.25 percent
Projected Salary Increases, including inflation	3.25 to 10.75 percent including wage inflation
Single Discount Rate:	
Current measurement date	3.85 percent
Prior Measurement date	4.23 percent
Investment Rate of Return	6.50 percent
Municipal Bond Rate	3.31 percent
Health Care Cost Trend Rate	7.5 percent, initial 3.25 percent, ultimate in 2028
Actuarial Cost Method	Individual Entry Age

Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

The most recent experience study was completed for the five year period ended December 31, 2015.

The long-term expected rate of return on health care investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected real rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adjusted for inflation.

During 2017, OPERS managed investments in three investment portfolios: the Defined Benefit portfolio, the Health Care portfolio and the Defined Contribution portfolio. The Health Care portfolio includes the assets for health care expenses for the Traditional Pension Plan, Combined Plan and Member-Directed Plan eligible members. Within the Health Care portfolio, contributions into the plans are assumed to be received continuously throughout the year based on the actual payroll payable at the time contributions are made, and health care-related payments are assumed to occur mid-year. Accordingly, the money-weighted rate of return is considered to be the same for all plans within the portfolio. The annual money-weighted rate of return expressing investment performance, net of investment expenses and adjusted for the changing amounts actually invested, for the Health Care portfolio is 15.2 percent for 2017.

The allocation of investment assets with the Health Care portfolio is approved by the Board of Trustees as outlined in the annual investment plan. Assets are managed on a total return basis with a long-term objective of continuing to offer a sustainable health care program for current and future retirees. OPERS' primary goal is to achieve and maintain a fully funded status for the benefits provided through the defined pension plans. Health care is a discretionary benefit. The table below displays the Board-approved asset allocation policy for 2017 and the long-term expected real rates of return:

Asset Class	Target Allocation	Weighted Average Long-Term Expected Real Rate of Return (Arithmetic)
Fixed Income	34.00 %	1.88 %
Domestic Equities	21.00	6.37
Real Estate Investment Trust	6.00	5.91
International Equities	22.00	7.88
Other investments	17.00	5.39
Total	100.00 %	4.98 %

Discount Rate A single discount rate of 3.85 percent was used to measure the OPEB liability on the measurement date of December 31, 2017. A single discount rate of 4.23 percent was used to measure the OPEB liability on the measurement date of December 31, 2016. Projected benefit payments are required to be discounted to their actuarial present value using a single discount rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the health care fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate are not met). This single discount rate was based on an expected rate of return on the health care investment portfolio of 6.50 percent and a municipal bond rate of 3.31 percent. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on these assumptions, the health care fiduciary net position and future contributions were sufficient to finance health care costs through 2034. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2034, and the municipal bond rate was applied to all health care costs after that date.

Sensitivity of the District's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate The following table presents the District's proportionate share of the net OPEB liability calculated using the single discount rate of 3.85 percent, as well as what the District's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one-percentage-point lower (2.85 percent) or one-percentage-point higher (4.85 percent) than the current rate:

	1% Decrease (2.85%)	Discount Rate (3.85%)	1% Increase (4.85%)
District's proportionate share of the net OPEB liability	$2,728,146	$2,053,487	$1,507,694

Sensitivity of the District's Proportionate Share of the Net OPEB Liability to Changes in the Health Care Cost Trend Rate Changes in the health care cost trend rate may also have a significant impact on the net OPEB liability. The following table presents the net OPEB liability calculated using the assumed trend rates, and the expected net OPEB liability if it were calculated using a health care cost trend rate that is 1.0 percent lower or 1.0 percent higher than the current rate.

Retiree health care valuations use a health care cost-trend assumption that changes over several years built into the assumption. The near-term rates reflect increases in the current cost of health care; the trend starting in 2018 is 7.50 percent. If this trend continues for future years, the projection indicates that years from now virtually all expenditures will be for health care. A more reasonable alternative is that in the not-too-distant future, the health plan cost trend will decrease to a level at, or near, wage inflation. On this basis, the actuaries project premium rate increases will continue to exceed wage inflation for approximately the next decade, but by less each year, until leveling off at an ultimate rate, assumed to be 3.25 percent in the most recent valuation.

	1% Decrease	Current Health Care Cost Trend Rate Assumption	1% Increase
District's proportionate share of the net OPEB liability	$1,964,749	$2,053,487	$2,145,150

Changes between Measurement Date and Report Date

In October 2018, the OPERS Board adopted a change in the investment return assumption, reducing it from 6.5 percent to 6.0 percent. This change will be effective for the 2018 valuation. The exact amount of the impact to the District's net OPEB liability is not known.

Note 11 - Long Term Obligations

The original issue date, interest rate, original issue amount and date of maturity of each of the District's long-term obligations follows:

Debt Issue	Interest Rate	Original Issue	Year of Maturity
Business-Type Activities			
Water Revenue Bonds			
Series 2010, Refunding	2.0 - 3.0%	$27,030,000	2018
OWDA Loans			
Filter System Improvement	3.35%	7,105,074	2025
Niles Standpipe Replacement	3.25%	1,298,746	2027
Chemical Feed Building Roof	3.25%	1,609,624	2027
Administration and Filter Building Roof	4.47%	302,790	2027
Valve Replacement/Gate House	0.00%	2,488,513	2030
Solids Contact Clarifier/Recarbonation	3.99%	14,327,587	2032
Solid Clarifiers/Recarbonation	2.00%	8,000,000	2032
Phase II Valve/Pipeline Replacement	2.00%	4,326,310	2036
Berlin Pump Station Improvements	2.00%	2,364,846	2036
SCADA/Instrumentation Improvements	2.94%	611,719	2035
SCADA/Enhanced Security Improvements	4.32%	3,202,817	2035
Dam/Spillway Improvement Design	4.45%	362,614	n/a
Chemical Feed Systems	0.81%	2,575,037	n/a
Phase III Valve/Main Replacement	0.81%	6,408,951	n/a

The changes in the District's long-term obligations during the six month period consist of the following:

	Principal Outstanding 6/30/18	Additions	(Reductions)	Principal Outstanding 12/31/18	Amount Due in One Year
Business-Type Activities:					
Water Revenue Bonds					
Series 2010, Refunding	$2,580,000	$0	($2,580,000)	$0	$0
Premium	12,264	0	(12,264)	0	0
Total Revenue Bonds	$2,592,264	$0	($2,592,264)	$0	$0

	Principal Outstanding 6/30/18	Additions	(Reductions)	Principal Outstanding 12/31/18	Amount Due in One Year
Business-Type Activities (continued):					
EPA/OWDA Loans					
Filter Systems Improvement	$3,228,049	$0	($191,087)	$3,036,962	$391,830
Niles Standpipe Replacement	688,285	0	(33,226)	655,059	68,080
Chemical Feed Building Roof	853,038	0	(41,179)	811,859	84,376
Administration and Filter Building Roof	176,915	0	(7,576)	169,339	15,664
Valve Replacement/Gate House	1,555,321	0	(62,213)	1,493,108	124,426
Solids Contact Clarifier/Recarbonation	11,438,726	0	(295,094)	11,143,632	607,967
Solid Clarifiers/Recarbonation	6,107,148	0	(182,573)	5,924,575	370,642
Phase II Valve/Pipeline Replacement	4,058,155	0	(91,179)	3,966,976	185,102
Berlin Pump Station Improvements	2,218,267	0	(49,840)	2,168,427	101,181
SCADA/Instrumentation Improvements	553,307	0	(12,203)	541,104	24,946
SCADA/Enhanced Security Improvements	2,935,461	0	(56,986)	2,878,475	117,690
Dam/Spillway Improvement Design	316,818	6,197	(8,379)	314,636	0
Chemical Feed Systems	2,006,208	2,128	(59,915)	1,948,421	0
Phase III Valve/Main Replacement	6,078,951	0	(147,919)	5,931,032	0
Total EPA/OWDA Loans	42,214,649	8,325	(1,239,369)	40,983,605	2,091,904
Other Long Term Obligations:					
Net Pension Liability	3,006,461	0	0	3,006,461	0
Net OPEB Liability	2,053,487	0	0	2,053,487	0
Compensated Absences	586,837	304,988	(368,496)	523,329	307,456
Total Other Long Term Obligation	5,646,785	304,988	(368,496)	5,583,277	307,456
Total Business-Type Activities	$50,453,698	$313,313	($4,200,129)	$46,566,882	$2,399,360

In July 2010, the District issued the Series 2010 Water Revenue Refunding Bonds in the amount of $27,030,000. These bonds were issued for the purpose of currently refunding the outstanding principal amount of the Series 1998 Refunding Bonds and the Series 1999 Refunding Bonds. The District decreased its total debt service payments by $3,476,809 as a result of the refunding. The District also incurred an economic gain (difference between the present values of the old and new debt service payments) of $3,348,796. The bonds were issued for a nine year period with a final maturity at December 1, 2018. The portion of these bonds relating to the Series 1998 bonds are paid from assessments collected from the cities of Youngstown and Niles. The portion of these bonds relating to the Series 1999 bonds are paid from gross revenues of the water system after provisions for operating and maintenance expenses. The structuring of the Series 2010 bonds allows for a portion of the assessments to cash fund capital improvement projects in the near future in lieu of obligating the District with new loans. The flow of funds is set by the trust agreements and the District must follow the restrictive financial covenants to remain in compliance with the bond indenture. Restricted assets held by the trustee related to the Water Revenue Bond amounted to $106,104. Although the bonds were paid off during the six month period, the cash and cash equivalents remained with the trustee as of December 31, 2018. In 2019, an arbitrage rebate report was completed and, subsequently, the cash balances were released to the District.

The District was approved for a $7,105,074 Ohio Water Development Authority loan for improvements to the filtration system. This loan was issued for a twenty year period with a final maturity in 2025.

The District was approved for a $1,298,746 Ohio Water Development Authority loan for the replacement of the Niles Standpipe. This loan was issued for a twenty year period with a final maturity in 2027.

The District was approved for a $1,609,624 Ohio Water Development Authority loan for the replacement of the Chemical Feed roof. This loan was issued for a twenty year period with a final maturity in 2027.

The District was approved for a $302,790 Ohio Water Development Authority loan for the replacement of the Administration and Filter Building roof. This loan was issued for a twenty year period with a final maturity in 2027.

The District was approved for a $2,488,513 Ohio Water Development Authority loan for the Valve Replacement/Gate House project. This loan was issued for a twenty year period with a final maturity in 2030.

The District was approved for a $14,327,587 Ohio Water Development Authority loan for the Solids Contact Clarifier/Recarbonation project. This loan was issued for a twenty year period with a final maturity in 2032.

The District was approved for an $8,000,000 Ohio Water Development Authority loan for the Solid Clarifiers/Recarbonation project. This loan was issued for a twenty year period with a final maturity in 2032.

The District was approved for a $4,326,310 Ohio Water Development Authority loan for the Phase II Valve/Pipeline Replacement project. This loan was issued for a twenty year period with a final maturity in 2036.

The District was approved for a $2,364,846 Ohio Water Development Authority loan for the Berlin Pump Station Improvements project. This loan was issued for a twenty year period with a final maturity in 2036.

The District was approved for a $611,719 Ohio Water Development Authority loan for the SCADA/Instrumentation Improvements project. This loan was issued for a twenty year period with a final maturity in 2035.

The District was approved for a $3,202,817 Ohio Water Development Authority loan for the SCADA/Enhanced Security Improvements project. This loan was issued for a twenty year period with a final maturity in 2035.

The District was approved for a $362,614 Ohio Water Development Authority loan for the Dam/Spillway Improvement Design project. As of December 31, 2018, the District has drawn down proceeds of $335,169. Total current year additions consisted of capitalized interest of $6,197. This loan has not been finalized and therefore the repayment schedule is not included in the schedule of debt service payments. Until a final repayment schedule is available, the District is paying based upon estimates. The total outstanding loan at December 31, 2018 is $314,636.

The District was approved for a $2,575,037 Ohio Water Development Authority loan for the Chemical Feed Systems project. As of December 31, 2018, the District has drawn down proceeds of $2,122,686 which includes amounts rolled over from the Chemical Feed Improvements Design loan. Total current year additions consisted of proceeds of $2,128. This loan has not been finalized and therefore the repayment schedule is not included in the schedule of debt service payments. Until a final repayment schedule is available, the District is paying based upon estimates. The total outstanding loan at December 31, 2018 is $1,948,421.

The District was approved for a $6,408,951 Ohio Water Development Authority loan for the Phase III Valve/Main Replacement project. As of December 31, 2018, the District has drawn down proceeds of $6,042,182 which includes amounts rolled over from the Phase III Valve Improvement Design loan. This loan has not been finalized and therefore the repayment schedule is not included in the schedule of debt service payments. Until a final repayment schedule is available, the District is paying based upon estimates. The total outstanding loan at December 31, 2018 is $5,931,032.

An analysis of the OWDA loan balances is as follows:

	EPA/OWDA Loans
Outstanding Principal at June 30, 2018	$42,214,649
Current Year Loan Proceeds	2,128
Current Year Capitalized Interest	6,197
Current Year Principal Payments	(1,239,369)
Outstanding Principal at December 31, 2018	$40,983,605

Principal and interest requirements to retire long-term obligations outstanding at December 31, 2018, are as follows:

	OWDA Loans	
	Principal	Interest
2019	$2,091,904	$943,945
2020	2,154,424	883,645
2021	2,219,087	821,286
2022	2,285,969	786,787
2023	2,355,151	690,071
2024 - 2028	11,039,517	2,427,503
2029 - 2033	8,927,359	885,884
2034 - 2036	1,716,105	67,658
Total	$32,789,516	$7,506,779

Note 12 – Significant Commitments

Contractual Commitments

As of December 31, 2018, the District had the following contractual construction commitments outstanding:

Vendor Name	Contract Amount	Amount Paid To Date	Remaining Contract
MS Consultants - Headhouse	$272,743	$43,320	$229,423
Gannett Fleming - Dam	2,319,302	614,046	1,705,256
FireFore - Alarm System	73,410	0	73,410
Marrucci Gaffney - Temporary Dam Repairs	43,000	0	43,000
AP O'Horo - Chem Feed Phase II	644,600	600,990	43,610
AP O'Horo - Potassium Permanganate	248,500	0	248,500
CT Consultants - Phase III	645,774	645,688	86
Total	$4,247,329	$1,904,044	$2,343,285

Remaining commitment amounts were encumbered at year end.

Encumbrances

Encumbrances are commitments related to unperformed contracts for goods or services. Encumbrance accounting is utilized to the extent necessary to assure effective budgetary control and accountability and to facilitate effective cash planning and control. At fiscal year end, the District had $5,911,860 of encumbrances expected to be honored upon performance by the vendor in the next fiscal year.

Note 13 – Change in Accounting Principle

For 2018, the District implemented Governmental Accounting Standards Board (GASB) Statement No. 89, *Accounting for Interest Incurred before the End of a Construction Period*. GASB 89 establishes accounting requirements for interest cost incurred before the end of a construction period. These changes were incorporated in the District's 2018 financial statements; however, there was no effect on beginning net position.

Required Supplementary Information

Mahoning Valley Sanitary District
Required Supplementary Information
Schedule of the District's Proportionate Share of the Net Pension Liability
Ohio Public Employees Retirement System - Traditional Plan
*Last Two Years (1) **

	2018	2017
District's Proportion of the Net Pension Liability	0.01916400%	0.02064600%
District's Proportionate Share of the Net Pension Liability	$3,006,461	$4,688,356
District's Covered Payroll	$2,532,562	$2,668,875
District's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	118.71%	175.67%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	84.66%	77.25%

(1) Although this schedule is intended to reflect information for ten years, information prior to 2017 is not available. An additional column will be added each year.

*Amounts presented for each year were determined as of the District's measurement date which is the prior calendar year end.

See accompanying notes to the required supplementary information

Mahoning Valley Sanitary District

Required Supplementary Information

Schedule of the District's Proportionate Share of the Net Pension Liability

Ohio Public Employees Retirement System - Combined Plan

*Last Two Years (1) **

	2018	2017
District's Proportion of the Net Pension Asset	0.02302500%	0.02366100%
District's Proportionate Share of the Net Pension Asset	$31,345	$13,168
District's Covered Payroll	$94,300	$92,100
District's Proportionate Share of the Net Pension Asset as a Percentage of its Covered Payroll	-33.24%	-14.30%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	137.28%	116.55%

(1) Although this schedule is intended to reflect information for ten years, information prior to 2017 is not available. An additional column will be added each year.

*Amounts presented for each year were determined as of the District's measurement date which is the prior calendar year end.

See accompanying notes to the required supplementary information

Mahoning Valley Sanitary District
Required Supplementary Information
Schedule of the District's Proportionate Share of the Net OPEB Liability
Ohio Public Employees Retirement System - OPEB Plan
*Last Two Years (1) **

	2018	2017
District's Proportion of the Net OPEB Liability	0.01891000%	0.02034300%
District's Proportionate Share of the Net OPEB Liability	$2,053,487	$2,054,712
District's Covered Payroll	$2,836,000	$2,861,650
District's Proportionate Share of the Net OPEB Liability as a Percentage of its Covered - Payroll	72.41%	71.80%
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	54.14%	54.05%

(1) Although this schedule is intended to reflect information for ten years, information prior to 2017 is not available. An additional column will be added each year.

*Amounts presented for each year were determined as of the District's measurement date which is the prior calendar year end.

See accompanying notes to the required supplementary information

Mahoning Valley Sanitary District
Required Supplementary Information
Schedule of the District's Contributions
Ohio Public Employees Retirement System - Traditional Plan
Last Three Years (1)

	2018 Interim (2)	Fiscal Year 2018	Fiscal Year 2017
Net Pension Liability			
Contractually Required Contribution	$186,320	$341,627	$333,539
Contributions in Relation to the Contractually Required Contribution	(186,320)	(341,627)	(333,539)
Contribution Deficiency (Excess)	$0	$0	$0
District Covered Payroll	$1,330,857	$2,531,377	$2,674,827
Pension Contributions as a Percentage of Covered Payroll	14.00%	13.50%	12.47%

(1) Although this schedule is intended to reflect information for ten years, information prior to fiscal year 2017 is not available. An additional column will be added each year.

(2) "2018 Interim" is a six month period to change from a Fiscal Year to Calendar Year basis.

See accompanying notes to the required supplementary information

Mahoning Valley Sanitary District

Required Supplementary Information

Schedule of the District's Contributions

Ohio Public Employees Retirement System - Combined Plan

Last Three Years (1)

	2018 Interim (2)	Fiscal Year 2018	Fiscal Year 2017
Net Pension Liability			
Contractually Required Contribution	$6,888	$12,966	$11,306
Contributions in Relation to the Contractually Required Contribution	(6,888)	(12,966)	(11,306)
Contribution Deficiency (Excess)	$0	$0	$0
District Covered Payroll	$49,200	$96,060	$90,379
Pension Contributions as a Percentage of Covered Payroll	14.00%	13.50%	12.51%

(1) Although this schedule is intended to reflect information for ten years, information prior to fiscal year 2017 is not available. An additional column will be added each year.

(2) "2018 Interim" is a six month period to change from a Fiscal Year to Calendar Year basis.

See accompanying notes to the required supplementary information

Mahoning Valley Sanitary District
Required Supplementary Information
Schedule of the District's Contributions
Ohio Public Employees Retirement System - OPEB Plan
Last Three Years (1)

Net OPEB Liability	2018 Interim (2)	Fiscal Year 2018	Fiscal Year 2017
Contractually Required Contribution	$2,641	$17,946	$44,309
Contributions in Relation to the Contractually Required Contribution	(2,641)	(17,946)	(44,309)
Contribution Deficiency (Excess)	$0	$0	$0
District Covered Payroll	$1,446,082	$2,744,887	$2,815,831
Pension Contributions as a Percentage of Covered Payroll	0.18%	0.65%	1.57%

(1) Although this schedule is intended to reflect information for ten years, information prior to fiscal year 2017 is not available. An additional column will be added each year.

(2) "2018 Interim" is a six month period to change from a Fiscal Year to Calendar Year basis.

See accompanying notes to the required supplementary information

Changes in Assumptions – OPERS Pension

Amounts reported beginning in 2017 incorporate changes in assumptions used by OPERS in calculating the total pension liability in the latest actuarial valuation. These new assumptions compared with those used in 2016 and prior are presented below:

	2017	2016 and prior
Wage Inflation	3.25 percent	3.75 percent
Future Salary Increases, including inflation	3.25 to 10.75 percent including wage inflation	4.25 to 10.05 percent including wage inflation
COLA or Ad Hoc COLA:		
Pre-January 7, 2013 Retirees	3 percent, simple	3 percent, simple
Post-January 7, 2013 Retirees	3 percent, simple through 2018, then 2.15 percent, simple	3 percent, simple through 2018, then 2.8 percent, simple
Investment Rate of Return	7.5 percent	8 percent
Actuarial Cost Method	Individual Entry Age	Individual Entry Age

Amounts reported beginning in 2017 use mortality rates based on the RP-2014 Healthy Annuitant mortality table. For males, Healthy Annuitant Mortality tables were used, adjusted for mortality improvement back to the observation period base of 2006 and then established the base year as 2015. For females, Healthy Annuitant Mortality tables were used, adjusted for mortality improvements back to the observation period base year of 2006 and then established the base year as 2010. The mortality rates used in evaluating disability allowances were based on the RP-2014 Disabled mortality tables, adjusted for mortality improvement back to the observation base year of 2006 and then established the base year as 2015 for males and 2010 for females. Mortality rates for a particular calendar year for both healthy and disabled retiree mortality tables are determined by applying the MP-2015 mortality improvement scale to the above described tables.

Amounts reported for 2016 and prior use mortality rates based on the RP-2000 Mortality Table projected 20 years using Projection Scale AA. For males, 105 percent of the combined healthy male mortality rates were used. For females, 100 percent of the combined healthy female mortality rates were used. The mortality rates used in evaluating disability allowances were based on the RP-2000 mortality table with no projections. For males 120 percent of the disabled female mortality rates were used set forward two years. For females, 100 percent of the disabled female mortality rates were used.

Changes in Assumptions – OPERS OPEB

For 2018, the single discount rate changed from 4.23 percent to 3.85 percent.

OHIO AUDITOR OF STATE
KEITH FABER

101 Central Plaza South
700 Chase Tower
Canton, Ohio 44702-1509
(330) 438-0617 or (800) 443-9272
EastRegion@ohioauditor.gov

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS REQUIRED BY *GOVERNMENT AUDITING STANDARDS*

Mahoning Valley Sanitary District
Trumbull County
P.O. Box 4119
Youngstown, Ohio 44515

To the Board of Directors:

We have audited, in accordance with auditing standards generally accepted in the United States and the Comptroller General of the United States' *Government Auditing Standards*, the financial statements of the Mahoning Valley Sanitary District, Trumbull County (the Government) as of and for the six months ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the District's basic financial statements and have issued our report thereon dated June 23, 2020.

Internal Control Over Financial Reporting

As part of our financial statement audit, we considered the Government's internal control over financial reporting (internal control) to determine the audit procedures appropriate in the circumstances to the extent necessary to support our opinion on the financial statements, but not to the extent necessary to opine on the effectiveness of the Government's internal control. Accordingly, we have not opined on it.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, when performing their assigned functions, to prevent, or detect and timely correct misstatements. A *material weakness* is a deficiency, or combination of internal control deficiencies resulting in a reasonable possibility that internal control will not prevent or detect and timely correct a material misstatement of the Government's financial statements. 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 internal control deficiencies that might be material weaknesses or significant deficiencies. Given these limitations, we did not identify any deficiencies in internal control that we consider material weaknesses. However, unidentified material weaknesses may exist.

Compliance and Other Matters

As part of reasonably assuring whether the Government's financial statements are free of material misstatement, we tested its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could directly and materially affect the determination of financial statement amounts. However, opining on compliance with those provisions was not an objective of our audit and accordingly, we do not express an opinion. The results of our tests disclosed no instances of noncompliance or other matters we must report under *Government Auditing Standards*.

Purpose of this Report

This report only describes the scope of our internal control and compliance testing and our testing results, and does not opine on the effectiveness of the Government's internal control or on compliance. This report is an integral part of an audit performed under *Government Auditing Standards* in considering the Government's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

Keith Faber
Auditor of State

Columbus, Ohio

June 23, 2020

OHIO AUDITOR OF STATE
KEITH FABER

MAHONING VALLEY SANITARY DISTRICT

TRUMBULL COUNTY

CLERK'S CERTIFICATION

This is a true and correct copy of the report which is required to be filed in the Office of the Auditor of State pursuant to Section 117.26, Revised Code, and which is filed in Columbus, Ohio.

Susan Babbitt

CLERK OF THE BUREAU

CERTIFIED
JULY 14, 2020

88 East Broad Street, Columbus, Ohio 43215
Phone: 614-466-4514 or 800-282-0370
www.ohioauditor.gov