
City of Detroit Water and Sewerage Department

**Financial Report
with Supplemental Information
June 30, 2017**

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Independent Auditor's Report

To the Board of Water Commissioners, the Honorable Mayor, and Members of the City Council
City of Detroit Water and Sewerage Department

Report on the Financial Statements

We have audited the accompanying financial statements of the Water Fund and Sewage Disposal Fund of the City of Detroit, Michigan as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the City of Detroit Water and Sewerage Department's (the "DWSD" or the "Department") basic financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Water Fund and Sewage Disposal Fund of the City of Detroit, Michigan as of June 30, 2017 and the changes in their financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As described in Note 1 to the financial statements, effective January 1, 2016, the City of Detroit, Michigan entered into lease agreements and related service agreements with the Great Lakes Water Authority (GLWA) under which GLWA will operate the regional water and sewage system for the term of 40 years. The Department has continued to negotiate some of the final issues concerning the transaction, resulting in the recognition of a special item (bifurcation loss) in the statement of revenue, expenses, and changes in net position. Our opinion is not modified with respect to this matter.

To the Board of Water Commissioners, the Honorable Mayor, and Members of the City Council
City of Detroit Water and Sewerage Department

We draw attention to Note 1, which explains that these financial statements present only the Water Fund and Sewage Disposal Fund and do not purport to, and do not, present fairly the financial position of the City of Detroit, Michigan as of June 30, 2017 or the changes in its financial position and the changes in its cash flows, where applicable thereof, for the year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplemental Information

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

Management has omitted management's discussion and analysis that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such missing information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the basic financial statements is not affected by this missing information.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 26, 2018 on our consideration of the City of Detroit, Michigan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the 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 City of Detroit, Michigan's internal control over financial reporting and compliance.

Plante & Moran, PLLC

January 26, 2018

City of Detroit Water and Sewerage Department

Statement of Net Position

June 30, 2017

	Water Fund	Sewage Disposal Fund	Total
Assets			
Current assets:			
Cash	\$ 2,043,278	\$ 21,211,138	\$ 23,254,416
Receivables:			
Customer receivables	10,052,929	51,439,885	61,492,814
Unbilled accounts receivable	6,822,918	18,905,877	25,728,795
Other receivables	1,279,594	1,203,523	2,483,117
Receivable from the Great Lakes Water Authority	14,352,159	15,003,717	29,355,876
Due from other funds	12,649,655	3,498,594	16,148,249
Due from city funds	23,485,679	3,202,418	26,688,097
Inventory	4,171,425	1,053,886	5,225,311
Prepaid expenses and other assets	279,533	169,728	449,261
Total current assets	<u>75,137,170</u>	<u>115,688,766</u>	<u>190,825,936</u>
Noncurrent assets:			
Restricted cash and investments (Note 3)	88,025,572	22,632,710	110,658,282
Capital assets: (Note 4)			
Assets not subject to depreciation	10,761,378	10,241,982	21,003,360
Assets subject to depreciation - Net	504,257,391	475,783,534	980,040,925
Receivable from Great Lakes Water Authority	470,073,829	592,268,406	1,062,342,235
Total noncurrent assets	<u>1,073,118,170</u>	<u>1,100,926,632</u>	<u>2,174,044,802</u>
Total assets	<u>1,148,255,340</u>	<u>1,216,615,398</u>	<u>2,364,870,738</u>
Deferred Outflows of Resources - Deferred pension costs (Note 8)	11,546,948	8,339,579	19,886,527
Liabilities			
Current liabilities:			
Accounts payable	4,124,474	1,532,828	5,657,302
Due to Great Lakes Water Authority	32,908,024	83,522,445	116,430,469
Due to other funds	3,498,594	12,649,655	16,148,249
Due to city funds	13,560,888	13,107,885	26,668,773
Deposits	2,653,454	-	2,653,454
Accrued liabilities and other	10,415,000	12,069,349	22,484,349
Accrued interest	1,901,626	3,169,374	5,071,000
Current portion of compensated absences (Note 5)	869,376	1,304,065	2,173,441
Accrued workers' compensation and claims and judgments (Note 7)	299,198	3,283,244	3,582,442
Current portion of bonds payable and contractual obligations (Note 5)	11,468,789	11,036,337	22,505,126
Total current liabilities	<u>81,699,423</u>	<u>141,675,182</u>	<u>223,374,605</u>
Noncurrent liabilities:			
Compensated absences - Net of current portion (Note 5)	586,371	879,556	1,465,927
Accrued workers' compensation and claims and judgments - Net of current portion (Note 7)	3,365,412	12,506,539	15,871,951
Net pension liability (Note 8)	50,867,232	35,306,922	86,174,154
Net OPEB obligation (Note 9)	353,571	327,300	680,871
Bonds payable and contractual obligations - Net of current portion (Note 5)	540,691,365	405,555,241	946,246,606
Total noncurrent liabilities	<u>595,863,951</u>	<u>454,575,558</u>	<u>1,050,439,509</u>
Total liabilities	<u>677,563,374</u>	<u>596,250,740</u>	<u>1,273,814,114</u>
Deferred Inflows of Resources - Deferred pension costs (Note 8)	<u>677,014</u>	<u>962,247</u>	<u>1,639,261</u>
Net Position			
Net investment in capital assets	40,523,725	120,923,226	161,446,951
Restricted:			
Improvements and extensions	36,425,536	12,446,072	48,871,608
Budget stabilization	2,686,900	8,246,100	10,933,000
Unrestricted	401,925,739	486,126,592	888,052,331
Total net position	<u>\$ 481,561,900</u>	<u>\$ 627,741,990</u>	<u>\$ 1,109,303,890</u>

See notes to financial statements.

City of Detroit Water and Sewerage Department

Statement of Revenue, Expenses, and Changes in Net Position

Year Ended June 30, 2017

	Water Fund	Sewage Disposal Fund	Total
Operating Revenue			
Water sales and sewage disposal charges	\$ 93,480,965	\$ 263,213,728	\$ 356,694,693
Shared services revenue	3,690,644	5,342,950	9,033,594
Penalties and fees	5,265,229	4,617,148	9,882,377
Miscellaneous	5,737,953	514,101	6,252,054
Total operating revenue	108,174,791	273,687,927	381,862,718
Operating Expenses			
Salaries, wages, and benefits	18,063,778	27,759,759	45,823,537
Contractual services	12,152,650	10,611,857	22,764,507
Wholesale charges	15,490,300	187,304,100	202,794,400
Operating	5,141,154	3,142,968	8,284,122
Operating supplies	1,385,101	2,639,342	4,024,443
Repairs and maintenance	3,132,815	997,103	4,129,918
Utilities	745,105	603,340	1,348,445
Shared services	5,342,838	8,219,449	13,562,287
Miscellaneous	7,788,875	374,789	8,163,664
Claims and judgments	1,743,976	16,015,429	17,759,405
Bad debt	8,310,263	27,475,720	35,785,983
Depreciation	16,367,235	8,720,350	25,087,585
Total operating expenses	95,664,090	293,864,206	389,528,296
Operating Income (Loss)	12,510,701	(20,176,279)	(7,665,578)
Nonoperating Revenue (Expense)			
Investment income	348,696	-	348,696
Loss on disposal of capital assets	-	(1,611,869)	(1,611,869)
Interest revenue on lease with the Great Lakes Water Authority	17,091,402	20,889,507	37,980,909
Principal forgiveness on state revolving fund loans	2,305,264	-	2,305,264
Miscellaneous	(589,367)	29,656	(559,711)
Interest expense, net of capitalized interest	(27,268,213)	(21,129,052)	(48,397,265)
Total nonoperating expense	(8,112,218)	(1,821,758)	(9,933,976)
Special Item - Bifurcation (Note 1)	(85,895,242)	(72,059,278)	(157,954,520)
Change in Net Position	(81,496,759)	(94,057,315)	(175,554,074)
Net Position - Beginning of year	563,058,659	721,799,305	1,284,857,964
Net Position - End of year	<u>\$ 481,561,900</u>	<u>\$ 627,741,990</u>	<u>\$ 1,109,303,890</u>

City of Detroit Water and Sewerage Department

Statement of Cash Flows

Year Ended June 30, 2017

	Water Fund	Sewage Disposal Fund	Total
Cash Flows from Operating Activities			
Receipts from customers	\$ 100,598,357	\$ 228,138,629	\$ 328,736,986
(Payments to) receipts from interfund services and reimbursements	(5,471,117)	5,471,117	-
(Payments to) receipts from city funds	(7,370,457)	2,002,094	(5,368,363)
Payments to suppliers	(14,362,834)	(165,210,718)	(179,573,552)
Payments to employees and fringes	(20,785,758)	(30,541,846)	(51,327,604)
Claims paid	(509,076)	(261,843)	(770,919)
Net cash and cash equivalents provided by operating activities	52,099,115	39,597,433	91,696,548
Cash Flows from Noncapital Financing Activities			
Receipts from GLWA for financial recovery bonds	1,020,118	2,294,569	3,314,687
Principal and interest paid on operating debt	(1,493,702)	(2,489,502)	(3,983,204)
Receipts on GLWA contract receivable	22,500,000	27,500,000	50,000,000
Net cash and cash equivalents provided by noncapital financing activities	22,026,416	27,305,067	49,331,483
Cash Flows from Capital and Related Financing Activities			
Issuance of bonds	50,740,000	-	50,740,000
Purchase of capital assets	(15,075,673)	(15,964,742)	(31,040,415)
Principal and interest paid on capital debt	(48,556,606)	(33,851,100)	(82,407,706)
Net cash and cash equivalents used in capital and related financing activities	(12,892,279)	(49,815,842)	(62,708,121)
Cash Flows from Investing Activities			
Interest received on investments	348,696	-	348,696
Receipts from renting activities	7,510	29,656	37,166
Net cash and cash equivalents provided by investing activities	356,206	29,656	385,862
Net Increase in Cash and Cash Equivalents	61,589,458	17,116,314	78,705,772
Cash and Cash Equivalents - Beginning of year	28,479,392	26,727,534	55,206,926
Cash and Cash Equivalents - End of year	\$ 90,068,850	\$ 43,843,848	\$ 133,912,698
Classification of Cash and Cash Equivalents			
Cash and investments	\$ 2,043,278	\$ 21,211,138	\$ 23,254,416
Restricted cash	88,025,572	22,632,710	110,658,282
Total cash and cash equivalents	\$ 90,068,850	\$ 43,843,848	\$ 133,912,698

City of Detroit Water and Sewerage Department

Statement of Cash Flows (Continued)

Year Ended June 30, 2017

	Water Fund	Sewage Disposal Fund	Total
Reconciliation of Operating Income (Loss) to Net Cash and Cash Equivalents from Operating Activities			
Operating income (loss)	\$ 12,510,701	\$ (20,176,279)	\$ (7,665,578)
Adjustments to reconcile operating income (loss) to net cash and cash equivalents from operating activities:			
Depreciation and amortization	16,367,235	8,720,350	25,087,585
Changes in assets and liabilities:			
Receivables	733,829	(18,073,578)	(17,339,749)
Due to and from other funds	(5,471,117)	5,471,117	-
Due to and from city funds	(7,370,457)	2,002,094	(5,368,363)
Inventories	(3,071,182)	1,965,725	(1,105,457)
Prepaid and other assets	15,590	(169,728)	(154,138)
Accrued liabilities and other	29,011,099	41,824,140	70,835,239
Accounts payable	13,638,275	5,311,848	18,950,123
Estimated claims liability	1,234,900	15,753,586	16,988,486
Net pension or OPEB liability	6,806,912	5,360,662	12,167,574
Deferrals related to pension	(12,306,670)	(8,392,504)	(20,699,174)
Total adjustments	39,588,414	59,773,712	99,362,126
Net cash and cash equivalents provided by operating activities	\$ 52,099,115	\$ 39,597,433	\$ 91,696,548

June 30, 2017

Note 1 - Nature of Business and Significant Accounting Policies

Reporting Entity

The City of Detroit, Michigan (the "City") Charter established the Detroit Water and Sewerage Department (the "DWSD" or the "Department") in 1836 to supply water, drainage, and sewage services within and outside the City. The Department is governed by a seven-member Board of Water Commissioners (the "Board") that is appointed by the mayor of the City of Detroit, Michigan. In accordance with government accounting principles, there are no separate legal entities to be reported within these financial statements. The financial statements of the Department have been included in the City's Comprehensive Annual Financial Report and reported as enterprise funds. These financial statements represent the financial condition and the results of operations of the Department only and do not purport to, and do not, present fairly the financial position of the City. Copies of these reports, along with other financial information, can be obtained at the Department's administrative office located at 735 Randolph, Detroit, Michigan 48226 and on its website at www.detroitmi.gov/dwsd.

The Board's governance structure, authority, and level of operational autonomy is established by five standing federal court orders dated September 9, 2011 (Creation of the Root Cause Committee); November 4, 2011 (Adoption of the Root Cause Committee Plan of Action); October 5, 2012 (Clarification of the November 4, 2011 Order); December 14, 2012 (Adoption of Root Cause Committee's Plan of Action Clarification); and December 15, 2015 (Opinion & Order on Joint Motion for Relief of Judgment). These court orders resulted largely from federal court oversight of the DWSD for most of the time from May 6, 1977 through March 27, 2013 related to alleged violations of the Clean Water Act and its National Pollutant Discharge Elimination System (NPDES) permit. The final court order reiterated that the court retains limited jurisdiction for the purpose of enforcement of its orders issued on September 9, 2011, November 4, 2011, October 5, 2012, December 14, 2012, and December 15, 2015.

Authority granted by the federal court to the DWSD includes operational independence in the areas of law, finance, human resources, and procurement. Specifically, while they restored some provisions in the Charter relating to the appointment and removal of members of the Board, these orders enjoined the City from applying any existing or future charter provisions, ordinances, resolutions, executive orders, city policies, regulations, procedures, or similar rules or practices that are inconsistent with the express terms of the court's orders. Further the orders granted the DWSD the authority to: purchase its own information technology systems; establish its own subunits and programs within its finance division, including debt management, accounts payable, accounts receivable, accounting, budget, and to establish new rates and charges; treasury and cash management, asset management, and deferred compensation; independence from city finance policies; be exempt from the application of city ordinances, the City's human resources policies and regulations, Civil Service Commission Rules, and city resolutions and orders, pertaining to payroll, employee benefits, and employee and labor relations; establish bank accounts in its own name; and establish its own self-insurance fund.

Effective January 1, 2016, the City of Detroit, Michigan entered into lease agreements and related service agreements with the Great Lakes Water Authority (GLWA) under which GLWA will operate the regional water and sewage system for the term of 40 years (with automatic extension to coincide with any debt still outstanding that was issued to finance system improvements). The agreements transfer all then-outstanding bonded indebtedness to GLWA, along with a leasehold interest in certain capital assets, cash, investments, and receivables in exchange for an annual lease payment of \$50 million.

The GLWA bonds are supported by a pledge of the revenue of both the regional system and local system revenue. Its master bond ordinance requires collections of the Department's water and sewer receipts to be deposited into trust accounts controlled by the master bond ordinance (through GLWA), which will be used to fund wholesale operation and maintenance costs, debt principal and interest, pension obligations, the Water Residential Assistance Program, and the budget stabilization fund, after distributing cash sufficient to cover the local operation and maintenance costs to the Department; any remaining monies are transferred to an improvement and extension fund.

June 30, 2017

Note 1 - Nature of Business and Significant Accounting Policies (Continued)

Accounting and Reporting Principles

The City of Detroit Water and Sewerage Department follows accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental units. Accounting and financial reporting pronouncements are promulgated by the Government Accounting Standards Board. The following is a summary of the significant accounting policies used by the Department:

Fund Accounting

The Department accounts for its various activities in two different funds in order to demonstrate accountability for how it has spent its resources; separate funds allow us to show the particular expenditures for which specific revenue was used.

Proprietary Funds

Proprietary funds include enterprise funds (which provide goods or services to users in exchange for charges or fees). The Department reports the following two funds:

- The Water Fund accounts for the operations of the water distribution system. The fund provides services to retail customers located in the City of Detroit, Michigan.
- The Sewage Disposal Fund accounts for the operations of the sewers, including sanitary and combined sewers. The fund provides services to retail customers located in the City of Detroit, Michigan.

Report Presentation

This report includes the fund-based statements of the Department. In accordance with government accounting principles, a government-wide presentation with program and general revenue is not applicable to special purpose governments engaged only in business-type activities.

Basis of Accounting

The Water Fund and Sewage Disposal Fund use the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred regardless of the timing of related cash flows. Nonexchange revenue (grants and contributions) are recognized when all eligibility requirements have been satisfied (generally based on reimbursements of amounts spent).

Specific Balances and Transactions

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, demand deposits, and short-term investments with a maturity of three months or less when acquired.

Investments

Investments are reported at fair value or estimated fair value based on quoted market prices.

Receivables

All customer receivables are shown net of allowance for uncollectible amounts of \$12,174,486 and \$38,829,685 in the Water Fund and Sewage Disposal Fund, respectively.

Note 1 - Nature of Business and Significant Accounting Policies (Continued)

Inventories and Prepaid Items

Inventories consist of operating and maintenance and repair parts for water and sewer assets and are valued at the lower of cost or market, with cost being determined on an average cost method. Inventory is recorded as expenditures when consumed rather than when purchased. Certain payments to vendors reflect costs applicable to future fiscal years and are recorded as prepaid items.

Capital Assets

Capital assets are recorded at historical cost, together with interest capitalized during construction. Capital assets are defined by the Department as assets with an initial individual cost of more than \$5,000 and an estimated useful life in excess of one year. All acquisitions of land and land improvements are capitalized regardless of cost. Donated capital assets are recorded at estimated acquisition value at the date of donation.

Interest incurred during the construction of capital assets of business-type activities is included as part of the capitalized value of the assets constructed.

Infrastructure, buildings, equipment, and vehicles are depreciated using the straight-line method over the following useful lives:

	<u>Depreciable Life - Years</u>
Land improvements	67 years
Buildings and structures	40 years
Distribution mains	67 years
Services and meters	20-67 years
Sewers	67-100 years
Machinery, equipment, and fixtures	3-20 years

The Department capitalizes qualifying net interest costs of the system on bonds issued for capital construction in accordance with GASB Statement No. 62, *Capitalization of Interest Cost*, as amended. Accordingly, capitalized interest for the year ended June 30, 2017 was \$939,151 for the Water Fund. There was no capitalized interest recognized in the Sewage Disposal Fund in fiscal year 2017.

Construction in progress is related to buildings, improvements, or infrastructure that has not yet been placed in service for the intended use. These costs include contract costs (materials, labor, and overhead) as well as professional fees and interest incurred during the construction period. Upon completion, construction in progress costs are transferred to the appropriate capital asset classification. A periodic review of projects included in construction in progress identified projects that were suspended or canceled during the period. These identified projects were removed from construction in progress and recorded as operations and maintenance costs.

Taxes and City Services

The Department pays no direct federal, state, or local taxes, except local taxes on excess property and federal Social Security taxes. The Department reimburses the City for most of the direct services furnished by other city departments, including general staff services. Charges are billed for all water and sewerage services provided to city departments.

Shared Costs

Costs related to shared facilities and personnel are allocated to the Department on a basis that relates costs incurred to the fund benefited.

June 30, 2017

Note 1 - Nature of Business and Significant Accounting Policies (Continued)

Compensated Absences

The liability for compensated absences reported in the basic financial statements consists of unpaid, accumulated vacation and sick leave balances. The liability has been calculated using the vesting method, in which leave amounts for both employees who are currently eligible to receive termination payments and other employees who are expected to become eligible in the future to receive such payments upon termination are included. Vacation leave is accrued as benefits are earned by employees and it is probable that the City will compensate the employees for the benefits through paid time off or other means, such as cash payments at termination or retirement. The liability has been calculated based on employees' current salary level and includes salary-related costs (e.g., Social Security and Medicare tax). The current year accruals are based on estimates, and payments are based on actuals.

Bond Premiums, Discounts, and Deferred Amounts on Refunding

Bond premiums and discounts are amortized using the effective interest method, and deferred amounts on refunding are amortized using the straight-line method over the life of the bonds. Bonds payable are reported net of the applicable bond premium and discounts. Deferred amounts on refunding are reported as deferred outflows and deferred inflows of resources.

Long-term Obligations

In accordance with contractual agreements with GLWA, the Department continues to be responsible for funding its share of the GLWA bonds that are estimated to have been used to improve the local DWSD system. The Department has been assigned a portion of the City of Detroit, Michigan's financial recovery bonds, which had been used to fund prebankruptcy operating obligations. There are also outstanding revenue bonds and state revolving fund loans at year end. All of these amounts are reported as long-term obligations in the statement of revenue, expenses, and changes in net position.

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. This separate financial statement element represents a consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (expense) until then. The Department has one item that qualifies for reporting in this category. The item is the deferred outflows of resources related to the City's defined benefit pension plan reported in both the Water Fund and Sewage Disposal Fund. The deferred outflows of resources related to the defined benefit pension plan result from three transactions: contributions to the defined benefit pension plan subsequent to June 30, 2016, the variance between the plan's actual investment earnings compared to the plan's assumed investment earnings, and changes in assumptions related to economic and demographic factors. The amounts deferred for changes in assumptions are amortized over the expected remaining service lives of all active and inactive employees who are provided with pensions. The amounts deferred resulting from the variance between actual investment earnings and assumed investment earnings and are amortized over a closed five-year basis.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The Department has one item that qualifies for reporting in this category. The item is the deferred inflows of resources related to the City's defined benefit pension plan reported in both the Water Fund and Sewage Disposal Fund. The deferred inflows of resources related to the defined benefit pension plan result from two transactions: differences between expected and actual experience and changes in assumptions related to economic and demographic factors. These amounts are amortized over the expected remaining service lives of all active and inactive employees who are provided with pensions.

Note 1 - Nature of Business and Significant Accounting Policies (Continued)

Net Position

The Department's net position is categorized as follows:

Net Investment in Capital Assets - This consists of capital assets, net of accumulated depreciation, and net of capital-related debt.

Restricted - The net position has been legally restricted by outside parties or by law through constitutional provisions or enabling legislation.

Unrestricted - This consists of assets that do not meet the definition of "restricted" or "net investment in capital assets."

Net Position Flow Assumption

Sometimes, the Department will fund outlays for a particular purpose from both restricted (e.g., restricted bond or grant proceeds) and unrestricted resources. In order to calculate the amounts to report as restricted net position and unrestricted net position in the Department's financial statements, a flow assumption must be made about the order in which the resources are considered to be applied. It is the Department's policy to consider restricted net position to have been depleted before unrestricted net position is applied.

Unbilled Revenue

The Department records unbilled revenue for services provided by the DWSD prior to year end by accruing actual revenue billed in the subsequent month.

Interest Expense

Interest expense in the statement of revenue, expenses, and changes in net position includes amounts related to the portion of rates and charges collected by the DWSD which relate to the accretion of obligations payable to the Great Lakes Water Authority in respect to the interest payable on GLWA's bonds and interest paid and accrued on outstanding financial recovery bonds, revenue bonds, and state revolving fund loans.

Classification of Revenue and Expenses

The Department classifies its revenue and expenses as either operating or nonoperating.

Operating revenue includes activities that have the characteristics of exchange transactions, such as revenue from charges for water service and sewerage services.

Nonoperating revenue includes activities that have the characteristics of nonexchange transactions, such as contributions and investment income.

Operating expenses include the costs of operating the water and sewer utility systems, administrative expenses, and depreciation on capital assets. All expenses not meeting this definition, including interest expense, are reported as nonoperating expenses.

Use of Estimates

The preparation of basic financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the basic financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

As of June 30, 2017, several of the Department's accounts were subject to significant estimates as a result of the leasing of assets to the Great Lakes Water Authority and are still pending negotiations.

Note 1 - Nature of Business and Significant Accounting Policies (Continued)

Special Item - Bifurcation

On January 1, 2016, the City of Detroit, Michigan, effectuated a lease agreement with the Great Lakes Water Authority for the regional water system for the term of 40 years, to be extended automatically to coincide with the final maturity of any bonds issued to finance improvements to the regional or local water systems. The service agreement and a corresponding lease of the regional water and sewer system collectively provide for an annual lease payment of \$50 million (of which \$22,500,000 is currently allocated to the Water Fund and \$27,500,000 is currently allocated to the Sewage Disposal Fund) in exchange for a leasehold interest in the Water and Sewer System's water treatment plants, wastewater treatment plant, certain public sewers, wastewater interceptors, transmission lines, and certain other assets, including cash and investments held by the Department as of December 31, 2015, assignment of all revenue of the regional and local water systems, and the assumption of all the DWSD bonded debt and certain liabilities.

The Department has continued to negotiate some of the final issues concerning the bifurcation, including the portion of the debt assumed by GLWA that was utilized for local system improvements, whose debt will continue to be funded by the Department. As a result of these negotiations, the Department has adjusted the recognition of the gain from the bifurcation in the current year by \$85,895,242 in the Water Fund and \$72,059,278 in the Sewage Disposal Fund.

Upcoming Accounting Pronouncements

In June 2015, the GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, which addresses reporting by governments that provide postemployment benefits other than pensions (OPEB) to their employees and for governments that finance OPEB for employees of other governments. This OPEB standard will require the Department to recognize on the face of the financial statements its proportionate share of the City's net OPEB liability related to its participation in the supplemental death benefit plan. The Department is currently evaluating the impact this standard will have on the financial statements when adopted. The provisions of this statement are effective for the Department's financial statements for the year ending June 30, 2018.

In November 2016, the Governmental Accounting Standards Board issued GASB Statement No. 83, *Certain Asset Retirement Obligations*, which establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for asset retirement obligations. The Department is currently evaluating the impact this standard will have on the financial statements when adopted. The provisions of this statement are effective for the Department's financial statements for the 2019 fiscal year.

In June 2017, the Governmental Accounting Standards Board issued GASB Statement No. 87, *Leases*, which improves accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that were previously classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. The Department is currently evaluating the impact this standard will have on the financial statements when adopted. The provisions of this statement are effective for the Department's financial statements for the year ending June 30, 2021.

Note 2 - Deposits and Investments

Deposits and investments are reported in the financial statements as follows:

	Water Fund	Sewage Disposal Fund	Total
Cash - Unrestricted	\$ 2,043,278	\$ 21,211,138	\$ 23,254,416
Restricted cash	85,802,617	20,446,437	106,249,054
Restricted investments - External investment pool valued at amortized cost	2,222,955	2,186,273	4,409,228
Total cash and investments	<u>\$ 90,068,850</u>	<u>\$ 43,843,848</u>	<u>\$ 133,912,698</u>

Michigan Compiled Laws Section 129.91 (Public Act 20 of 1943, as amended) authorizes local governmental units to make deposits and invest in the accounts of federally insured banks, credit unions, and savings and loan associations that have offices in Michigan. The law also allows investments outside the state of Michigan when fully insured. The local unit is allowed to invest in bonds, securities, and other direct obligations of the United States or any agency or instrumentality of the United States; repurchase agreements; bankers' acceptances of United States banks; commercial paper rated within the two highest classifications, which matures not more than 270 days after the date of purchase; obligations of the State of Michigan or its political subdivisions, which are rated as investment grade; and mutual funds composed of investment vehicles that are legal for direct investment by local units of government in Michigan.

There are no limitations or restrictions on participant withdrawals for the investment pools that are recorded at amortized cost.

The Department's cash and investments are subject to several types of risk, which are examined in more detail below:

Custodial Credit Risk of Bank Deposits

Custodial credit risk is the risk that in the event of a bank failure, the Department's deposits may not be returned to it. The Department does not have a deposit policy for custodial credit risk. At year end, the Department had \$54,399,204 of bank deposits (certificates of deposit and checking and savings accounts) that were uninsured and uncollateralized. The Department believes that due to the dollar amounts of cash deposits and the limits of FDIC insurance, it is impractical to insure all deposits. As a result, the Department evaluates each financial institution with which it deposits funds and assesses the level of risk of each institution; only those institutions with an acceptable estimated risk level are used as depositories.

Custodial Credit Risk of Investments

Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Department will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Department does not have a policy for custodial credit risk. As of June 30, 2017, the Department had no investments subject to custodial credit risk.

Interest Rate Risk

Interest rate risk is the risk that the value of investments will decrease as a result of a rise in interest rates. The Department's investment policy does not restrict investment maturities other than commercial paper, which can only be purchased with a 270-day maturity. At year end, the Department had no investments subject to interest rate risk.

June 30, 2017

Note 2 - Deposits and Investments (Continued)

Credit Risk

State law limits investments in commercial paper to the top two ratings issued by nationally recognized statistical rating organizations. The Department has no investment policy that would further limit its investment choices. As of year end, the Department had no investments subject to credit risk.

Note 3 - Restricted Assets

Restricted assets, principally cash and investments, are available for debt service revenue requirements on revenue bonds and to provide funds for improvements, enlargements, extensions, and construction.

At June 30, 2017, the restricted assets are as follows:

Description	2017		Total
	Water Fund	Sewage Disposal Fund	
Budget stabilization fund - Held in trust in accordance with the master bond ordinance	\$ 2,686,900	\$ 8,246,100	\$ 10,933,000
Improvement and extension fund	36,425,536	12,446,072	48,871,608
Donations, restricted for specified purposes	977,278	-	977,278
Unspent bond proceeds	47,935,858	1,940,538	49,876,396
Total	<u>\$ 88,025,572</u>	<u>\$ 22,632,710</u>	<u>\$ 110,658,282</u>

City of Detroit Water and Sewerage Department

Notes to Financial Statements

June 30, 2017

Note 4 - Capital Assets

Capital asset activity of the Department for the year ended June 30, 2017 was as follows:

	Balance July 1, 2016	Reclassifications and Adjustments	Additions	Disposals	Balance June 30, 2017
Water Fund					
Capital assets not being depreciated:					
Land and land rights	\$ 1,327,637	\$ -	\$ -	\$ -	\$ 1,327,637
Construction in progress	17,619,205	(22,748,276)	15,289,523	(726,711)	9,433,741
Subtotal	18,946,842	(22,748,276)	15,289,523	(726,711)	10,761,378
Capital assets being depreciated:					
Mains	486,555,427	18,473,296	756,644	-	505,785,367
Buildings and structures	55,401,580	24,516	-	-	55,426,096
Machinery, equipment, and fixtures	76,705,703	6,492,663	-	-	83,198,366
Land improvements	4,791,365	-	-	-	4,791,365
Services	48,981,409	-	-	-	48,981,409
Meters	126,143,066	-	-	-	126,143,066
Subtotal	798,578,550	24,990,475	756,644	-	824,325,669
Accumulated depreciation:					
Mains	126,567,898	(627,384)	7,226,703	-	133,167,217
Buildings and structures	41,224,437	129,438	589,406	-	41,943,281
Machinery, equipment, and fixtures	37,037,801	4,455,990	2,994,972	-	44,488,763
Land improvements	1,349,598	(337,132)	71,871	-	1,084,337
Services	29,623,127	(78,489)	550,770	-	30,095,408
Meters	64,815,323	(459,564)	4,933,513	-	69,289,272
Subtotal	300,618,184	3,082,859	16,367,235	-	320,068,278
Net capital assets being depreciated	497,960,366	21,907,616	(15,610,591)	-	504,257,391
Net water fund capital assets	516,907,208	(840,660)	(321,068)	(726,711)	515,018,769

June 30, 2017

Note 4 - Capital Assets (Continued)

Business-type Activities (Continued)

	Balance July 1, 2016	Reclassifications and Adjustments	Additions	Disposals	Balance June 30, 2017
Sewage Disposal Fund					
Capital assets not being depreciated:					
Land and land rights	\$ 72,326	\$ -	\$ -	\$ -	\$ 72,326
Construction in progress	7,863,676	(12,046,892)	15,966,095	(1,613,223)	10,169,656
Subtotal	7,936,002	(12,046,892)	15,966,095	(1,613,223)	10,241,982
Capital assets being depreciated:					
Sewer lines and laterals	382,779,563	10,766,939	-	-	393,546,502
Buildings and structures	107,816,579	427,287	-	-	108,243,866
Machinery, equipment, and fixtures	104,743,951	4,024,975	-	-	108,768,926
Land improvements	6,696,440	195,443	-	-	6,891,883
Subtotal	602,036,533	15,414,644	-	-	617,451,177
Accumulated depreciation:					
Sewer lines and laterals	37,660,560	1,080,290	2,470,327	-	41,211,177
Buildings and structures	44,878,997	467,197	1,837,023	-	47,183,217
Machinery, equipment, and fixtures	45,535,702	2,148,404	4,311,490	-	51,995,596
Land improvements	1,504,282	(328,139)	101,510	-	1,277,653
Subtotal	129,579,541	3,367,752	8,720,350	-	141,667,643
Net capital assets being depreciated	472,456,992	12,046,892	(8,720,350)	-	475,783,534
Net sewage disposal fund capital assets	480,392,994	-	7,245,745	(1,613,223)	486,025,516
Net department capital assets	<u>\$ 997,300,202</u>	<u>\$ (840,660)</u>	<u>\$ 6,924,677</u>	<u>\$ (2,339,934)</u>	<u>\$ 1,001,044,285</u>

Construction in progress additions in the Water Fund include \$939,151 of interest costs that have been capitalized as part of the cost of assets.

Construction Commitments

The Department is engaged in numerous projects that are part of its five-year capital improvement program, including water main replacements, fire hydrant replacements, sewer system rehabilitation, vehicle and equipment purchases, and information technology upgrades. The program is being financed primarily from revenue of the funds and proceeds from the issuance of revenue bonds by the Great Lakes Water Authority. The total amount of construction contract commitments outstanding at June 30, 2017 was approximately \$53 million and \$179 million for the Water Fund and Sewage Disposal Fund, respectively.

City of Detroit Water and Sewerage Department

Notes to Financial Statements

June 30, 2017

Note 5 - Long-term Debt

Long-term debt activity of the Department for the year ended June 30, 2017 is summarized as follows:

	Interest Rate Ranges	Principal Maturity Ranges	Balance June 30, 2016	Additions	Reductions	Balance June 30, 2017	Due Within One Year
Water fund obligations payable and long-term debt:							
Obligation payable to GLWA	5.01%	\$11,065,908 - 32,799,150	\$ 395,639,923	\$ 79,360,077	\$ (10,970,221)	\$ 464,029,779	\$ 11,065,908
Financial recovery bonds	4-6%	\$272,639 - 1,327,003	29,988,910	-	(259,657)	29,729,253	272,639
Revenue bonds	5%	\$3,205,000 - 7,260,000	-	50,740,000	-	50,740,000	-
State revolving loans	2.5%	\$95,000 - 195,000	-	1,268,474	-	1,268,474	-
Total principal outstanding on obligations payable and long-term debt			425,628,833	131,368,551	(11,229,878)	545,767,506	11,338,547
Unamortized bond premiums on revenue bonds			-	6,478,034	(85,386)	6,392,648	130,242
Total water fund obligations payable and long-term debt			425,628,833	137,846,585	(11,315,264)	552,160,154	11,468,789
Compensated absences			1,350,012	105,735	-	1,455,747	869,376
Workers' compensation and general claims			489,624	4,290,170	(1,115,184)	3,664,610	299,198
Total water fund long-term obligations			\$ 427,468,469	\$ 142,242,490	\$ (12,430,448)	\$ 557,280,511	\$ 12,637,363
Sewage disposal fund obligations payable and long-term debt:							
Obligation payable to GLWA	4.58%	\$10,581,938 - 25,609,942	\$ 310,973,690	\$ 64,026,310	\$ (7,957,172)	\$ 367,042,828	\$ 10,581,938
Financial recovery bonds	4-6%	\$454,399 - 2,211,672	49,981,511	-	(432,761)	49,548,750	454,399
Total principal outstanding on obligations payable and long-term debt			360,955,201	64,026,310	(8,389,933)	416,591,578	11,036,337
Compensated absences			2,025,017	158,604	-	2,183,621	1,304,065
Workers' compensation and general claims			1,043,797	14,927,576	(181,590)	15,789,783	3,283,244
Total sewage disposal fund long-term obligations			\$ 364,024,015	\$ 79,112,490	\$ (8,571,523)	\$ 434,564,982	\$ 15,623,646

Obligation Payable to GLWA

As part of the lease transaction in which the City leased the regional water and sewer system of the DWSD to GLWA, all DWSD revenue bonds outstanding as of December 31, 2015, including those purchased by the Michigan Finance Authority under its state revolving loan program, were assumed by GLWA with the consent of bondholders.

Note 5 - Long-term Debt (Continued)

Per the Water and Sewer Services agreement between the DWSD and GLWA dated June 12, 2015 and the Master Bond Ordinances dated October 7, 2015, as amended, the Detroit retail class continues to pay its common-to-all share of debt service revenue requirements and its allocated share of debt service revenue requirements associated with improvements to the local water and sewer systems. Payments on the debt service incurred by GLWA on the outstanding revenue bonds assumed as of December 31, 2015 are to be allocated using an agreed-upon percentage of total debt service associated with bond financed local improvements over the life of such bonds, though the bonds themselves continue to be secured by the net revenue of GLWA, which includes all revenue payable by the Detroit retail class. As of June 30, 2017, the parties were still working to resolve the allocation percentage. Subsequent to June 30, 2017, the parties reached a tentative agreement on the debt allocation, subject to board approval. During 2017, as a result of continued negotiations on the allocation percentage, the DWSD revised its obligation payable to GLWA in the amount of \$79,360,077 and \$64,026,310 in the Water Fund and Sewage Disposal Fund, respectively. These amounts, along with other bifurcation-related adjustments, are recognized as a special item (bifurcation loss) in the statement of revenue, expenses, and changes in net position.

Financial Recovery Bonds

On December 10, 2014, the City issued approximately \$1.3 billion of debt. The Financial Recovery Bonds, Series 2014-B(1) and Series 2014-B(2) total \$616,560,047 and \$15,404,098, respectively. They are federally taxable. The bonds' interest rate is 4.0 percent per annum from December 10, 2014 through and including March 31, 2034 and 6.0 percent per annum thereafter until the maturity date of April 1, 2044. The bonds were delivered to classes of creditors in satisfaction of (1) Class 12 OPEB claims (the bonds were distributed to the new Voluntary Employee Beneficiary Associations (VEBA) for the general retirees and police and fire retirees), (2) Class 9 Pension Obligation Certificate (POC) claims, and (3) other unsecured bankruptcy claims.

The Financial Recovery Bonds, Series 2014-C total \$88,430,021. The bonds bear interest at 5.0 percent per annum. The bonds mature on December 10, 2026. The bonds are unsecured but city revenue from its parking garages will provide the required debt service. If the parking garage revenue is insufficient, then the City's General Fund will provide the necessary debt service funds. The 2014-C Bonds were issued as part of the Syncora Settlement and FGIC/POC Settlement in the plan and on the effective date. As part of the Plan of Adjustment, GLWA remains responsible to pay a portion of the debt; however, the entire debt remains in the City's name. The Department was allocated 11.21 percent and 11.55 percent of the Series 2014-B and Series 2014-C debt, respectively, of which GLWA's portion of that allocation is 71.42 percent and the DWSD's portion of that allocation is 28.58 percent. The Department has recorded a liability for the entire balance of the allocated debt and has also recorded a receivable from GLWA for the debt allocated to GLWA that will be reimbursed to the Department.

Revenue Bonds

During the year, GLWA issued revenue bonds, of which new money in the amount of \$50,740,000 was allocated to the DWSD. Proceeds from the bonds provided financing for improvements to the local water system. The bonds are secured by the net revenue of GLWA and the DWSD. GLWA's master bond ordinance requires collections of DWSD receipts to be deposited into trust accounts controlled by the master bond ordinance (through GLWA), which will be used, among other things, to fund debt principal and interest.

State Revolving Fund Loans

The Department (Water Fund) received loans from the State of Michigan Revolving Loan Fund totaling \$1,268,474 during the year ended June 30, 2017. The proceeds of the loans were used to pay costs of making certain repairs and improvements to the water system and are reported as a long-term liability on the statement of net position. The Department (Water Fund) also recorded nonoperating revenue in the amount of \$2,305,264 related to principal forgiveness on state revolving loans.

June 30, 2017

Note 5 - Long-term Debt (Continued)

Debt Service Requirements to Maturity

Annual debt service requirements to maturity for the above obligations and debt, excluding premiums on revenue bonds, are as follows:

Years Ending June 30	Water Fund			Sewage Disposal Fund		
	Principal	Interest	Total	Principal	Interest	Total
2018	\$ 11,338,547	\$ 27,049,768	\$ 38,388,315	\$ 11,036,337	\$ 18,845,696	\$ 29,882,033
2019	12,131,602	26,488,851	38,620,453	10,935,310	18,338,323	29,273,633
2020	12,734,607	25,883,498	38,618,105	11,438,151	17,835,482	29,273,633
2021	13,372,821	25,247,935	38,620,756	11,964,123	17,309,510	29,273,633
2022	14,042,758	24,580,528	38,623,286	12,514,289	16,759,344	29,273,633
2023-2027	85,178,754	111,498,389	196,677,143	77,986,667	74,342,665	152,329,332
2028-2032	107,780,309	88,161,225	195,941,534	96,808,169	54,806,022	151,614,191
2033-2037	135,379,673	59,550,705	194,930,378	118,327,835	32,268,969	150,596,804
2038-2042	100,414,452	24,155,430	124,569,882	61,158,043	6,785,058	67,943,101
2043-2047	53,393,984	6,605,093	59,999,077	4,422,654	398,108	4,820,762
Total	\$ 545,767,507	\$ 419,221,422	\$ 964,988,929	\$ 416,591,578	\$ 257,689,177	\$ 674,280,755

Note 6 - Contingent Liabilities

The Department is subject to various governmental environmental laws and regulations. GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, established accounting and financial reporting standards for pollution (including contamination) remediation obligations, which are obligations to address the current or potential detrimental effects of existing pollution by participating in pollution remediation activities such as site assessments and cleanups. The standard excludes pollution prevention or control obligations with respect to current operations, and future pollution remediation activities that are required upon retirement of an asset, such as landfill closure and postclosure care. The Department determined that there were no estimated pollution remediation obligations to be recorded at June 30, 2017.

The Department is also a defendant in numerous alleged claims, lawsuits, billing disputes, and other stated and pending demands. The Department's and the City's legal department have estimated a reserve, which is included in the accompanying basic financial statements, for the potential outcome of such claims or the amount of potential damages in the event of an unfavorable outcome for each of the above contingencies. The Department's management and the City's legal department believe that any differences in reserved amounts and final settlement, after consideration of claims covered by insurance, resulting from such litigation will not materially impact the Department's financial position or results of operations.

Binns vs. Detroit and *Detroit Alliance Against Rain Tax vs. Detroit* are class action lawsuits challenging the Department's drainage charge as a violation of the Michigan constitution's Headlee Amendment. The cases have been consolidated and original jurisdiction lies in the Michigan Court of Appeals. The Department anticipates a ruling in the fourth quarter of fiscal year 2018. The class plaintiffs seek a ruling that the Department's drainage charge is an illegal tax and all customer classes are entitled to a refund under the Headlee Act of all drainage charges paid during the previous year, which amounted to approximately \$130 million (the 10,000+ class members in *Michigan Warehousing vs. Detroit* released their claims and are precluded from relief). If the Court rules in the plaintiffs' favor, the Department would not be able to impose drainage charges in the future unless voters approve a millage. The City of Detroit, Michigan, currently assesses the maximum millage allowed by law; thus, an additional tax could not be imposed. The nonprevailing party will likely appeal.

The City holds various commercial insurance policies to cover other potential loss exposures.

Note 7 - Risk Management

The Department is exposed to various risks of loss related to property loss, torts, errors and omissions, and employee injuries (workers' compensation) as well as medical benefits provided to employees. The Department is self insured for losses such as workers' compensation, legal, disability benefits, and vehicular liabilities. There is also a risk of loss associated with providing health, dental, and life insurance benefits to employees and retirees.

The Department, through the City, provides health and dental insurance benefits to employees and certain retirees through self-insured health plans that are administered by third-party administrators. The Department does not purchase excess or stop-loss insurance for its self-insured health plans.

The Department purchases public official liability insurance, property insurance for certain properties, and general liability insurance for accidents occurring at certain properties. The Department assumes a \$250,000 self-insured retention for any one loss or occurrence under its self-insured public official liability program. The Department purchases excess liability insurance for its general liability for certain properties that provides per occurrence and aggregate protection. The Department is fully self insured for environmental-related liabilities and purchases no excess environmental liability insurance. Settled claims relating to the commercial insurance have not exceeded the amount of insurance coverage in any of the past three fiscal years.

The Department estimates the liability for claims that have been incurred through the end of the fiscal year, including claims that have been reported as well as those that have not yet been reported. Changes in the estimated liability for the past two fiscal years were as follows:

	Water Fund		Sewage Disposal Fund	
	2017	2016	2017	2016
Estimated liability - Beginning of year	\$ 489,624	\$ 12,844,460	\$ 1,043,797	\$ 21,581,140
Estimated claims incurred, including changes in estimates	4,290,170	7,600	14,927,576	1,007,600
Liability assumed by GLWA	-	(12,297,637)	-	(21,309,996)
Claim payments	(1,115,184)	(64,799)	(181,590)	(234,947)
Estimated liability - End of year	<u>\$ 3,664,610</u>	<u>\$ 489,624</u>	<u>\$ 15,789,783</u>	<u>\$ 1,043,797</u>

Note 8 - Pension Plans

Plan Description

The Department participates in the City of Detroit General Retirement System (the "System"). The System is a single-employer plan composed of a defined benefit plan component and a defined contribution annuity plan component. The plan provides retirement, disability, and survivor benefits to plan members and beneficiaries. The plan is administered by its own board of trustees. Plan members include active employees, retirees, and beneficiaries from various departments within the City. Benefit terms have been established by contractual agreements between the City and the employees' collective bargaining units; amendments are subject to the same process.

The System issues publicly available financial reports that include financial statements and the required supplementary information. The reports can be obtained from City of Detroit Retirement Systems, One Detroit Center, 500 Woodward Ave., Suite 3000, Detroit, MI 48226 or obtained from the System's website (www.rscd.org). Detailed information about the pension plan's fiduciary net position is available in the separately issued financial report. The pension plan's fiduciary net position has been determined on the same basis of accounting used by the pension plan. The Plan uses the economic resources measurement focus and the full accrual basis of accounting. Investments are stated at fair value or estimated fair value. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to the plan are recognized when due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

Note 8 - Pension Plans (Continued)

The City filed for bankruptcy in June 2013 and subsequently exited bankruptcy on December 10, 2014. This resulted in the adoption of the Eighth Amended Plan for Adjustment of Debts of the City of Detroit (the "POA"). Under the provisions of the POA, effective July 1, 2014, the Combined Plan for General Employees Retirement System of the City of Detroit was introduced.

As a result of negotiations between the City and the public employee unions, the existing plan benefit formulas were frozen and no employees were allowed to earn further benefits under the existing plans after June 30, 2014. The emergency manager issued Order #30 (General Employees Retirement System of the City of Detroit) on June 30, 2014, which put these changes into effect. This plan in existence as of June 30, 2014 is known as the "legacy plan" or "Component II".

As of July 1, 2014, all eligible employees began participating in the new hybrid pension plan, or Component I. Eligible city employees will receive the benefits they have earned under the legacy Component II plan for services performed through June 30, 2014, plus an additional benefit under the new hybrid plan formula for services after June 30, 2014.

With respect to Component II benefit adjustments resulting from the POA, the pension settlement (for which benefit levels were and are contingent on other factors, including receipt of outside contributions) provided: for a loss of cost-of-living adjustments, or "escalators" (COLAs), paid after July 1, 2014; for a 4.5 percent reduction to the remaining accrued pension benefit after the COLA loss; and for plan members who participated in the Annuity Savings Fund (ASF) plan between 2003 and 2013, subject to certain caps, recoupment of certain amounts of interest deemed by the City to be in "excess" of that which should have been credited to the individual ASF accounts, referred to as "ASF Recoupment". ASF Recoupment, like other provisions of the pension settlement, was not optional. Most members will pay their ASF Recoupment by a monthly deduction from their future pension benefits for a set term of months, including interest calculated at 6.75 percent. All members were offered a lump-sum cash option, which was limited in the aggregate to \$30 million in member recoupment. The POA also included the possibility of restoration of certain benefit reductions, based on a program for the most financially vulnerable pensioners and beneficiaries through the State of Michigan Treasury Department as well as a new feature of Component II allowing restoration of benefits depending on the plan funding level over time.

Nonemployer contributing entity within Component II - On September 9, 2014, a memorandum of understanding (MOU) was entered into by the emergency manager and mayor of the City of Detroit, Michigan, county executive of each of the charter counties of Wayne and Macomb, the County of Oakland, Michigan, and the governor of the State of Michigan. The purpose of the MOU was to establish a framework for the creation of a regional authority (known as Great Lakes Water Authority or "GLWA") pursuant to Act 233 of 1955 to operate, control, and improve the regional assets of the water supply system and the sewage disposal system owned by the City.

Pursuant to the MOU, the City of Detroit, Michigan and GLWA entered into two lease agreements: the Regional Water Supply System Lease dated June 12, 2015 and the Regional Sewage Supply System Lease dated June 12, 2015. Under the provisions of the lease agreements, GLWA leases the regional assets of the City for a period of at least 40 years.

Pursuant to the lease agreements, on December 1, 2015, a tri-party agreement between the City of Detroit, Michigan, General Retirement System of the City of Detroit (GRS), and GLWA was signed. Per the POA and Section 4.3 of the lease agreements, GLWA is required to pay a portion of the pension obligation that will be allocable to the City of Detroit Water and Sewerage Department. The purpose of the pension reporting agreement is to set forth in determining the funding status for the DWSD pension pool, and for GRS to agree to provide GLWA with certain actuarial and other reports to enable GLWA to properly manage and pay its portion of the pension obligation that is allocable to the DWSD.

Note 8 - Pension Plans (Continued)

Effective January 1, 2016, GLWA was established. Accordingly, the prior DWSD division was split into two: one representing the ongoing DWSD department, now referenced as DWSD Retail (DWSD-R), and another to represent the Great Lakes Water Authority. In accordance with the pension reporting agreement, the net position and liabilities of the DWSD were allocated to DWSD-R and GLWA in accordance with written directions received from DWSD-R and GLWA. Per written directions, GLWA is to be allocated 70.3 percent of the net position and liabilities of the DWSD. Because GLWA has no employees or retirees in the Combined Plan, GLWA is considered a nonemployer contributing entity in accordance with GASB Statement No. 67. As this arrangement also meets the definition of a special funding situation per GASB Statement No. 68, GLWA's allocated pension expense of \$6,307,901 is recognized by the Department as a revenue and expense.

Benefits Provided

Component II - Component II is the legacy plan, the original defined benefit plan, which includes a defined benefit component and a defined contribution component. Component II generally applies to benefits accrued by members prior to July 1, 2014. The plan provides retirement, disability, and survivor benefits to plan members and beneficiaries. Except as specifically provided in Combined Plan, benefits provided under Component II are frozen effective June 30, 2014. Component II also includes the Income Stabilization Fund. The fund, a part of Component II and established as a provision of the POA, was established for the sole purpose of paying the Income Stabilization Benefits and Income Stabilization Benefits Plus to eligible pensioners.

The Income Stabilization Fund is outlined in Section G-3 of the POA. The annual supplemental pension income stabilization benefit is equal to the lesser of either (i) the amount needed to restore an eligible retiree's reduced annual pension benefit to 100 percent of the amount of the annual pension benefit that the eligible retiree was receiving from the System in 2013; or (ii) the amount needed to bring the total annual 2013 household income of the eligible retiree up to 130 percent of the Federal Poverty Level for 2013. The Income Stabilization Fund did not have an impact on total pension liability for the systems or the City as of the measurement date of June 30, 2016 because the assets held by the Income Stabilization Fund are not considered to be available to fund the normal retirement benefit provisions under the pension plan but instead are restricted to pay Income Stabilization Benefits and Income Stabilization Benefits Plus. No liability currently exists for these benefits.

Postbankruptcy GRS Component II plan members upon retirement will receive an annuity which shall be the actuarial equivalent of the member's accumulated contributions in the 1973 Defined Contribution Annuity Savings Fund at the time of retirement. In addition, each member will receive a basic service and a membership service pension. The Basic Service Pension will consist of \$12.00 per annum multiplied by the number of years and fractions of years of credited service, not to exceed 10 years. The Membership Service Pension will be calculated as follows:

- For members who retire on or before June 30, 1992, a membership service pension of 1.5 percent of average final compensation for the first 10 years of service and 1.63 percent for service in excess of 10 years
- For members who retire on or after July 1, 1992 but prior to July 1, 1998, a membership service pension of 1.5 percent of average final compensation for each year of service for the first 10 years, plus 1.7 percent of average final compensation for each year of service in excess of 10 years up to 20 years of service, plus 1.9 percent of average final compensation for each year of service in excess of 20 years. In no event shall benefits paid by the System exceed 90 percent of average final compensation.

Note 8 - Pension Plans (Continued)

- For members who retire on or after July 1, 1998, a membership service pension for service rendered prior to July 1, 2012 of 1.6 percent of average final compensation for each year of service for the first 10 years, plus 1.8 percent of average final compensation for each year of service in excess of 10 years, up to 20 years of service, plus 2 percent of average final compensation for each year of service in excess of 20 years up to 25 years, plus 2.2 percent of average final compensation for each year of service in excess of 25 years; plus, for service rendered after July 1 2012 and prior to July 1, 2014, 1.5 percent of average final compensation for each year of service; plus \$12 for each year of city service not to exceed \$120. Notwithstanding the foregoing, for members of the Michigan Council 25 of the American Federation of State, County and Municipal Employees, AFL-CIO Local 2920 and the Detroit Senior Water Systems Chemists Association bargaining units, the effective date of the 1.5 percent multiplier was April 1, 2013 for all years of service rendered after that date. In no case shall benefits paid by the System exceed 90 percent of average final compensation.

In the event the eligible retiree's estimated adjusted annual household income in any calendar year after the first year that the eligible retiree receives a benefit from the Income Stabilization Fund is less than 105 percent of the Federal Poverty Level in that year, the eligible retiree will receive an additional Income Stabilization Benefit Plus benefit commencing as of the following July 1.

Component I - Component I is considered a "hybrid" plan because it includes a defined benefit component and a defined contribution component. Component I of the plan document applies to benefits accrued by members of the GRS on and after July 1, 2014. The Component I plan provides retirement, disability, and survivor benefits to plan members and beneficiaries.

Contributions

Article 9, Section 24 of the State of Michigan constitution requires that financial benefits arising on account of employee service rendered in each year be funded during that year. Accordingly, in the past, the System retained an independent actuary to determine the annual contribution. Until 2024, contributions are based on specific provisions of the Plan of Adjustment. After 2024, contributions will be actuarially determined based on a 30-year level principal closed amortization.

Employer Contributions

Component II

The Department made contributions of \$12,741,300 to the System for the fiscal year ended June 30, 2017.

Component I

Per Section 9.3 of the Combined Plan, commencing on July 1, 2015 and ending on June 30, 2023, the Department is required to contribute 5 percent of compensation of active members. During the fiscal year ended June 30, 2017, the Department contributed \$1,012,219 to the Component I plan.

Employee Contributions

Contribution requirements of plan members are established and may be amended by the board of trustees in accordance with the City Charter, union contracts, and plan provisions. For the year ended June 30, 2017, there were no employee contributions into Component II, as the plan was frozen as of June 30, 2014. Effectively, employee contributions were allowed only until August 1, 2014. Contributions into Component I began with the members' first payroll date occurring in August 2014. With respect to GRS Component I, the Department's employees who are members of GRS are now required to make mandatory contributions of 4 percent of pay toward their defined benefit. Additionally, employees can make voluntary contributions of 3, 5, or 7 percent of annual pay. During the fiscal year ended June 30, 2017, the Department's employees contributed \$1,424,205 in mandatory and voluntary contributions.

Note 8 - Pension Plans (Continued)

Net Pension Liability

As permitted by GASB Statement No. 68, the Department has chosen to use June 30, 2016 as its measurement date for the net pension liability. The net pension liability was calculated using the total pension liability and the Systems' fiduciary net position as of June 30, 2016. The June 30, 2016 total pension liability was determined by an actuarial valuation performed as of June 30, 2015, which used updated procedures to roll forward the estimated liability to June 30, 2016. At June 30, 2016, the Department reported a liability for its net pension liability as follows:

	<u>Component II</u>	<u>Component I</u>
Measurement date used for the Department NPL	June 30, 2016	June 30, 2016
Based on a comprehensive actuarial valuation as of	June 30, 2015	June 30, 2015
	<u>Net Pension Liability</u>	
Component II	\$ 81,992,088	
Component I		<u>4,182,066</u>
Total	<u>\$ 86,174,154</u>	

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

For the year ended June 30, 2017, the Department recognized a pension expense of \$8,972,832 for Component II and \$5,087,291 for Component I.

At June 30, 2017, the Department reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Component II</u>		<u>Component I</u>	
	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Difference between expected and actual experience	\$ -	\$ -	\$ -	\$ (1,369,116)
Changes in assumptions	-	-	452,361	(270,145)
Net difference between projected and actual earnings on pension plan investments	5,151,008	-	529,639	-
Employer contributions to the plan subsequent to the measurement date	<u>12,741,300</u>	<u>-</u>	<u>1,012,219</u>	<u>-</u>
Total	<u>\$ 17,892,308</u>	<u>\$ -</u>	<u>\$ 1,994,219</u>	<u>\$ (1,639,261)</u>

Note 8 - Pension Plans (Continued)

From the above table, the Plan reported \$12,741,300 and \$1,012,219 for Components II and I, respectively, as deferred outflows of resources resulting from employer contributions subsequent to the measurement date, which will be recognized as a reduction of the net pension liability in the year ended June 30, 2018.

The deferred outflows of resources and deferred inflows of resources related to the change in actuarial assumptions, the net differences between projected and actual earnings on pension plan investments, and the differences between expected and actual experiences will be amortized and recognized as an addition to or a reduction of pension expense as follows:

Years Ending June 30	Component II	Component I
2018	\$ (439,838)	\$ (41,125)
2019	(439,838)	(41,125)
2020	3,429,280	(41,125)
2021	2,601,404	(70,614)
2022	-	(180,907)
Thereafter	-	(282,365)
Total	<u>\$ 5,151,008</u>	<u>\$ (657,261)</u>

Actuarial Assumptions

The total pension liability in each actuarial valuation was determined using the following actuarial assumptions applied to all periods included in the measurement:

	Component II	Component I
Inflation	N/A	N/A
Salary increases	N/A	2.0 - 3.0%
Investment rate of return (net of investment expenses)	7.23%	7.23%

Based on an experience study from 2008-2013 issued in February 2015, the mortality table assumption was based on the RP-2014 Blue Collar Annuitant Table for males and females. The tables are projected to be fully generational, based on the two-dimensional sex distinct mortality scale MP-2014.

The actuarial assumptions other than mortality and the investment rate of return, used in the June 30, 2015 valuation to calculate the total pension liability as of June 30, 2016, were based on the results of an actuarial experience study for the period from 2002-2007.

Note 8 - Pension Plans (Continued)

Discount Rate

The discount rate used to measure the total pension liability as of June 30, 2016 was 7.23 percent for both Components I and II; however, the single discount rate used at the beginning of the year was 7.61 percent for both plans. For the Component II plan, the projection of cash flows used to determine the discount rates assumed that employee contributions will cease as of June 30, 2014 and that city contributions, including contributions sourced from the proceeds of the sale of artwork from the State of Michigan and the Foundation for Detroit's Future, will be made at rates equal to those set by the final Plan of Adjustment through June 30, 2023 and a 30-year closed level dollar amortization thereafter. For the Component I plan, the projection of cash flows used to determine the discount rates assumed that employee contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate. Based on those assumptions, the pension plans' fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Investment Rate of Return

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return as of June 30, 2016 for each major asset class including pension plan target asset allocation, as disclosed in the investment footnote, are summarized in the following table:

Component I and Component II

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global equity	43.00 %	6.22 %
Global fixed income	12.00	2.95
Real estate	10.00	3.92
Private equity	8.00	7.35
Hedge funds	5.00	4.41
Global asset allocation/risk parity/real assets	21.00	5.02
Cash	1.00	0.98

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

The following presents the net pension liability of the Department, calculated using the discount rate of 7.23 percent, as well as what the Department's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate:

	1 Percent Decrease (6.23%)	Current Discount Rate (7.23%)	1 Percent Increase (8.23%)
Net pension liability of Component II	\$ 103,922,452	\$ 81,992,088	\$ 63,343,141
Net pension liability of Component I	6,258,664	4,182,066	2,483,481
Total	<u>\$ 110,181,116</u>	<u>\$ 86,174,154</u>	<u>\$ 65,826,622</u>

Note 9 - Other Postemployment Benefits

In prior years, the City offered retiree health care, life insurance, and supplemental death benefits. Under the City's Plan of Adjustment approved in the Bankruptcy Case, the City restructured retiree health benefits through the creation of two voluntary employee beneficiary associations (or VEBAs). The Employee Health and Life Insurance Benefit Plan was significantly reduced on March 1, 2014 and terminated on December 31, 2014. The supplemental death benefits plan was also closed as of December 10, 2014; benefits to be paid to individuals retiring prior to that date are limited to the assets allocated to the closed plan. There are no further contribution requirements for the City or for plan members.

The City continues to provide certain death benefits to its employees providing services after December 10, 2014. The remainder of this note relates solely to those benefits.

Plan Description

The Supplemental Death Benefit Plan (the "Supplemental Plan") is a prefunded single-employer defined benefit plan administered by the employee benefit board of trustees and is accounted for in the City's Employee Death Benefits Fund. The Supplemental Plan does not issue a separate standalone financial statement. The money is held in the City of Detroit Employee Benefit Trust and the City uses the trust fund to account for the Supplemental Plan.

Funding Policy

The City is under no legal obligation to prefund the plan benefits. Plan members have no contribution requirements. While the City has made contributions in prior years, no contributions were made during the year ended June 30, 2017.

Funding Progress

For the year ended June 30, 2017, the City has estimated the cost of providing these other postemployment benefits through an actuarial valuation as of June 30, 2016. The valuation computes an annual required contribution, which represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded actuarial liabilities over a period not to exceed 30 years. This valuation's computed contribution and actual funding are summarized as follows:

Annual required contribution (recommended)	\$	10,104
Interest on the prior year's net OPEB obligation		46,091
Less adjustment to the annual required contribution		<u>(21,541)</u>
Annual OPEB cost - Increase in net OPEB obligation		34,654
OPEB obligation - Beginning of year		<u>646,217</u>
OPEB obligation - End of year	\$	<u><u>680,871</u></u>

Employer contributions and annual OPEB cost data for the current and two preceding years were as follows:

Fiscal Year Ended	Annual OPEB Costs	Actual Contributions	Percentage OPEB Costs Contributed	Net OPEB Obligation
June 30, 2017	\$ 34,653	\$ -	- %	\$ 680,871
June 30, 2016	69,301	8,533	12.31	646,218
June 30, 2015	72,546	-	-	585,449

Note 9 - Other Postemployment Benefits (Continued)

Funded Status and Funding Progress

As of June 30, 2016, the most recent actuarial valuation date for the Supplemental Plan, the actuarial accrued liability for benefits related to all city employees was \$3,292,916 and the actuarial value of assets was \$4,002,000, resulting in an unfunded actuarial accrued liability (UAAL) of \$(709,477). The covered payroll (annual payroll of all active city employees covered by the plan) was \$449,330,941 and the ratio of the UAAL to the covered payroll was (0.2) percent.

The preceding figures do not include the closed plan. The closed plan includes assets of approximately \$21.4 million, which equals the actuarial accrued liability of the plan as of June 30, 2017.

Actuarial Methods and Assumptions

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented above, presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets consistent with the long-term perspective of the calculations.

In the June 30, 2016 actuarial valuation, the individual entry age actuarial cost method was used. The actuarial assumptions included a 6.7 percent investment rate of return (net of administrative expenses), which is a blended rate of the expected long-term investment returns on plan assets and on the employer's own investments calculated based on the funded level of the plan at the valuation date and an annual healthcare cost trend rate of 12 percent initially reduced by decrements to an ultimate rate of 5 percent after 10 years. Both rates included a 4.5 percent inflation assumption. The actuarial value of assets was determined using techniques that spread the effects of short-term volatility in the market value of investments over a five-year period. The UAAL is being amortized as a level percentage of projected payroll on an open basis. The remaining amortization period at June 30, 2016 was 30 years. The mortality tables used by the Supplemental Plan to evaluate the death benefits to be paid for general retirees were 100 percent of the RP 2014 Blue Collar Annuitant table set forward one year.

Required Supplemental Information

City of Detroit Water and Sewerage Department

Required Supplemental Information Schedule of Changes in the Net Pension Liability and Related Ratios - Component II

Last Three Fiscal Years (Based on Measurement Date)

	2016*	2015	2014
Total Pension Liability			
Service cost	\$ -	\$ -	\$ 9,746,003
Interest	17,060,232	73,105,847	66,690,581
Changes in benefit terms	-	(216,739,841)	(27,617,959)
Differences between expected and actual experience	(2,139,381)	(607,587)	-
Changes in assumptions	7,447,135	(28,150,723)	(74,737,651)
Benefit payments, including refunds	(29,420,988)	(77,231,357)	(98,853,724)
Net Change in Total Pension Liability	(7,053,002)	(249,623,661)	(124,772,750)
Total Pension Liability - Beginning of year	238,892,250	1,053,974,670	1,178,747,420
Total Pension Liability - End of year	\$ 231,839,248	\$ 804,351,009	\$ 1,053,974,670
Plan Fiduciary Net Position			
Contributions - Employer	\$ 12,741,300	\$ 42,888,889	\$ 21,491,022
Contributions - Member	-	186,274	3,335,706
Net investment (loss) income	(917,059)	24,580,775	102,177,233
Administrative expenses	-	(30,290)	(3,416,015)
Benefit payments, including refunds	(29,420,988)	(77,231,357)	(98,853,724)
Other	469,357	39,485,858	-
Net Change in Plan Fiduciary Net Position	(17,127,390)	29,880,149	24,734,222
Plan Fiduciary Net Position - Beginning of year	166,974,550	532,323,722	507,589,500
Plan Fiduciary Net Position - End of year	\$ 149,847,160	\$ 562,203,871	\$ 532,323,722
Department's Net Pension Liability - Ending	\$ 81,992,088	\$ 242,147,138	\$ 521,650,948
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	64.63 %	69.90 %	50.51 %
Covered Employee Payroll	\$ 57,607,917	\$ 60,782,192	\$ 64,835,429
Department's Net Pension Liability as a Percentage of Covered Employee Payroll	142.33 %	398.39 %	804.58 %

* As described in Note 8, the Great Lakes Water Authority (GLWA) was established on January 1, 2016. On this date, GLWA assumed a portion of the net position and liabilities of the Department. 2016 has been adjusted to reflect only the portion allocated to the Department.

GASB Statement No. 67 was implemented for FYE 2014 and does not require retroactive implementation. Data will be added as information is available until 10 years of such information is available.

City of Detroit Water and Sewerage Department

Required Supplemental Information Schedule of Changes in the Net Pension Liability and Related Ratios - Component I

Last Two Fiscal Years (Based on Measurement Date)

	2016	2015
Total Pension Liability		
Service cost	\$ 5,556,742	\$ 5,853,312
Interest	704,400	210,719
Differences between expected and actual experience	(1,577,654)	-
Changes in assumptions	521,263	(352,686)
Benefit payments, including refunds	(1,827,192)	-
Voluntary member contributions	1,085,989	1,662,483
Net Change in Total Pension Liability	4,463,548	7,373,828
Total Pension Liability - Beginning of year	7,373,828	-
Total Pension Liability - End of year	\$ 11,837,376	\$ 7,373,828
Plan Fiduciary Net Position		
Contributions - Employer	\$ 1,884,087	\$ 2,596,022
Contributions - Member	1,529,722	2,103,576
Net investment (loss) income	(33,400)	6,011
Administrative expenses	(912,491)	(436,927)
Benefit payments, including refunds	(1,827,192)	-
Voluntary member contributions	1,085,989	1,662,483
Other	(2,570)	-
Net Change in Plan Fiduciary Net Position	1,724,145	5,931,165
Plan Fiduciary Net Position - Beginning of year	5,931,165	-
Plan Fiduciary Net Position - End of year	\$ 7,655,310	\$ 5,931,165
Department's Net Pension Liability - Ending	\$ 4,182,066	\$ 1,442,663
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	64.67 %	80.44 %
Covered Employee Payroll	\$ 57,607,917	\$ 60,782,192
Department's Net Pension Liability as a Percentage of Covered Employee Payroll	7.26 %	2.37 %

GASB Statement No. 67 was implemented for FYE 2014 and does not require retroactive implementation. Data will be added as information is available until 10 years of such information is available.

City of Detroit Water and Sewerage Department

Required Supplemental Information Schedule of Pension Contributions - Component II

**Last Ten Fiscal Years
Years Ended June 30**

	2017*	2016*	2015*	2014	2013	2012	2011	2010	2009	2008
Actuarially required contribution	\$ 12,741,300	\$ 42,888,889	\$ 21,491,022	\$ 24,868,234	\$ 24,865,090	\$ 13,026,588	\$ 21,791,527	\$ 9,386,138	\$ 8,434,151	\$ 12,396,854
Contributions in relation to the actuarially required contribution	12,741,300	42,888,889	21,491,022	27,301,090	26,450,595	10,861,181	19,715,512	11,400,588	11,587,039	13,425,623
Contribution (Excess) Deficiency	\$ -	\$ -	\$ -	\$ (2,432,856)	\$ (1,585,505)	\$ 2,165,407	\$ 2,076,015	\$ (2,014,450)	\$ (3,152,888)	\$ (1,028,769)
Department's Covered Employee Payroll	\$ 41,216,957	\$ 57,607,917	\$ 60,782,192	\$ 64,835,429	\$ 64,836,192	\$ 78,425,725	\$ 80,880,585	\$ 88,124,257	\$ 88,882,438	\$ 91,857,108
Contributions as a Percentage of Covered Employee Payroll	30.91 %	74.45 %	35.36 %	42.11 %	40.80 %	13.85 %	24.38 %	12.94 %	13.04 %	14.62 %

* Contributions beginning with fiscal year 2015 were determined by the provisions of the Plan of Adjustment and were not actuarially determined.

City of Detroit Water and Sewerage Department

**Required Supplemental Information
Schedule of Pension Contributions - Component I**

	Last Three Fiscal Years Years Ended June 30		
	<u>2017</u>	<u>2016</u>	<u>2015</u>
Contractually determined contribution	\$ 1,012,219	\$ 1,884,087	\$ 2,596,022
Contributions in relation to the contractually determined contribution	<u>1,012,219</u>	<u>1,884,087</u>	<u>2,596,022</u>
Contribution Deficiency	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Employee Payroll	\$ 41,216,957	\$ 57,607,917	\$ 60,782,192
Contributions as a Percentage of Covered Employee Payroll	2.46 %	3.27 %	4.27 %

Contributions are made in accordance with the Plan of Adjustment, which is 5 percent of compensation of active members.

June 30, 2017

Pension Information

Benefit Changes

Component II

In 2014, the pension plan was frozen. No new employees are allowed to participate in the plan. All benefits for actives were frozen as of June 30, 2014 based on service and average final compensation accrued as of that date.

In 2015, benefits were reduced by 4.5 percent and the cost-of-living adjustments were eliminated.

Changes in Assumptions

Component II

In 2014, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 5.88 percent to 7.2 percent, updating the mortality tables from RP-2000 Combined Table to RP-2014 Blue Collar Mortality Table, and adjustments for longevity and unused sick leave were eliminated.

Component II and I

In 2015, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.2 percent to 7.61 percent.

In 2016, amounts reported as changes of assumptions resulted from adjustment of the discount rate from 7.61 percent to 7.23 percent.

Memorandum

To: Board of Water Commissioners Finance Committee, City of Detroit Water and Sewerage Department

From: Beth Bialy and Tim St. Andrew

Subject: Summary of audit observations and comments

Date: January 26, 2018

CC: Gary Brown and Thomas Naughton

We have recently completed our audit of the City of Detroit, Michigan, which included the Water Fund and Sewage Disposal Fund, as enterprise funds of the City. As part of that audit, we have communicated relevant matters to those charged with governance of the City. With the issuance of the separate Water Fund's and Sewage Disposal Fund's financial statements, we felt it appropriate to summarize the information contained in those communications that are relevant to the City of Detroit Water and Sewerage Department (the "DSWD" or the "Department").

Below is a summarized discussion of the observations and comments that are contained in our formal communications to the City of Detroit, Michigan (note that the finding numbers refer to the more comprehensive discussion to be found in the City's Report on Internal Control and Compliance). For a more complete understanding, we would refer you to those original documents. However, the two of us are available to discuss these concepts with the Board of Water Commissioners at its convenience.

It is important to understand that due to the financial environment in place, the DWSD is reliant on certain accounting procedures and controls of the City and GLWA. We include all such matters here, because we feel that in your oversight role, it is important to focus on all internal control issues that impact the DWSD.

Internal Control Matters

- Finding No.** 2017-001
Finding Type Material weakness (repeat finding)
Finding The DWSD should have a process in place to ensure proper recording and reconciling of general ledger activity throughout the year as well as identification and recording of all year-end closing entries in accordance with generally accepted accounting principles (GAAP) prior to the commencement of the audit. The DWSD's general ledger and underlying financial records were not reconciled and closed in a timely manner.
- Finding No.** 2017-002 (repeat finding)
Finding Type Material weakness
Finding There should be a procedure in place to reconcile bank activity on a timely basis and to ensure cash balances are properly stated as of the end of the year. The DWSD did not have procedures in place to ensure all bank accounts were fully reconciled to the general ledger on a timely basis. Also, it was noted through audit procedures that signer cards for certain bank accounts were not updated to remove the former CFO.
- Finding No.** 2017-003
Finding Type Material weakness
Finding The DWSD should have appropriate overall monitoring procedures in place over the general ledger and external financial reporting function to ensure timely and accurate financial statements. The DWSD lacked appropriate reconciliation procedures and overall monitoring of account balances during the year.

Audit Observations

Qualitative Aspects of Accounting Practices

Bifurcation Uncertainties

On January 1, 2016, the City of Detroit, Michigan effectuated a lease agreement with the Great Lakes Water Authority for the regional water and sewer system for a term of 40 years, to be extended automatically to coincide with the final maturity of any bonds issued to finance improvements to the regional or local water and sewer systems. The agreement and a corresponding lease of the regional water and sewer system collectively provide for an annual lease payment of \$50 million in exchange for a leasehold interest in certain assets of the systems held by the funds as of December 31, 2015, assignment of all revenue of the regional and local water and sewer systems, and the assumption of all DWSD bonded debt and certain liabilities.

The DWSD has been in negotiations with the Great Lakes Water Authority since February 2016 regarding a multitude of open items related to the January 1, 2016 bifurcation of the DWSD. During 2017, as a result of continued negotiations on the allocation percentage of debt, the DWSD revised its obligation payable to GLWA in the amount of \$79,360,077 and \$64,026,310 in the Water Fund and Sewage Disposal Fund, respectively. These amounts, along with other bifurcation-related adjustments, are recognized as a special item (bifurcation loss) in the statement of revenue, expenses, and changes in net position.

Other Accounting Estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management’s knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected.

Estimate	Basis for Estimate
Accrued claims and judgments	The estimated probable loss that will result from ongoing litigation involving general and automobile claims
Accrued workers’ compensation	An actuarial report prepared by an independent third party. The report was based on certain assumptions pertaining to actual loss development patterns which are augmented with industry benchmark loss development patterns.
Allowance for doubtful accounts	Management’s analysis of accounts receivable for water and sewer billings that are unlikely to be collected by the DWSD
Net pension liability, deferred inflows and outflows, and pension expense	Independent third-party actuary services. These valuations are based on certain assumptions pertaining to mortality, expected returns on plan assets, and future contributions from the City/DWSD.
Special item (loss) related to the change in the estimates surrounding the allocations between the DWSD and the Great Lakes Water Authority based on an anticipated final MOU surrounding the lease agreement	Based on DWSD management’s understanding of the provisions that will ultimately be formalized in a Memorandum of Understanding (MOU). The MOU is still being negotiated between the City and GLWA.

We evaluated the key factors and assumptions used to develop the estimates above in determining that they are reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were the long-term obligation disclosures included in Note 5, the risk management disclosures in Note 7, and the pension disclosures in Note 8.

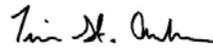
Board of Water Commissioners Finance Committee
City of Detroit Water and Sewerage Department

We would like to take this opportunity to thank the DWSD's staff for the cooperation and courtesy extended to us during our audit. Their assistance and professionalism are invaluable. We welcome any questions you may have regarding the following communications and we would be willing to discuss any of these or other questions that you might have at your convenience.

Plante & Moran, PLLC



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Partner



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