



DISCUSSION DRAFT

Great Lakes Water Authority

FY 2017 and 2018

Biennial Budget

Contents

| | |
|--|----|
| Budget-at-a-Glance | 1 |
| Notice of Public Hearing | 2 |
| Overview & Commentary | 3 |
| Budget Calendar..... | 8 |
| Core Financial Plan Schedules..... | 11 |
| Schedule 1 – Wholesale Revenue Requirements from Charges..... | 13 |
| Schedule 2 - Sources of Revenues and Use of Revenue Requirements – Flow of Funds Basis per Master Bond Ordinance | 14 |
| Schedule 3A – Operations & Maintenance Expense by Budgetary Division | 15 |
| Schedule 3B – Operations & Maintenance Expense by Expense Category | 16 |
| Schedule 3C – Personnel Costs | 17 |
| Schedule 4 - Debt Service Coverage Calculations per Master Bond Ordinance | 20 |
| Schedule 5 – Improvement & Extension Fund and Construction Bond Fund..... | 21 |
| Operating Area Financial Plan..... | 23 |
| Water Operating Services | 24 |
| Water Operations | 25 |
| Systems Control | 27 |
| Fleet, Facilities, and Field Services | 29 |
| Wastewater Operating Services | 31 |
| Planning Services | 33 |
| Chief Executive Officer | 36 |
| Security & Integrity | 38 |
| Administrative & Compliance Services | 40 |
| Financial Services | 46 |
| Debt Management..... | 48 |
| Water System Revenue Charges..... | 52 |
| <i>The Foster Group, LLC Report – Water System</i> | 52 |
| Water System Schedule of Charges | 53 |
| Sewer System Revenue Charges | 56 |
| <i>The Foster Group, LLC Report – Sewer System</i> | 56 |
| Sewer System Schedule of Charges | 57 |
| Abbreviations | 58 |

Budget-at-a-Glance

Notice of Public Hearing



**GREAT LAKES WATER AUTHORITY
NOTICE OF PUBLIC HEARING
BIENNIAL BUDGET
For the Two Year Period ended June 30, 2018
(FY 2017 and 2018)**

Notice is hereby given that the Great Lakes Water Authority will hold a Public Hearing on the FY 2017 and 2018 Biennial budget.

DATE: Wednesday, March 2, 2016

TIME: 12:00 p.m.

PLACE: 5th Floor Board Room
735 Randolph
Detroit, Michigan 48226

The budget is available for public inspection at the office of the Authority, Water Board Building, 735 Randolph, Detroit, Michigan 48226. A copy of the budget may also be found online at <http://glwater.org/finance/>.

Note: Published in the Detroit Legal News beginning on February 1, 2016.

Overview & Commentary

Creation of the Great Lakes Water Authority

On September 9, 2014, the Mayor of the City of Detroit, the Chief Executives of Wayne, Oakland and Macomb Counties, and the Governor of the State of Michigan entered into a Memorandum of Understanding (MOU) to form the regional Great Lakes Water Authority (GLWA or “regional system”). That action also established the foundation for a restructured City of Detroit Water & Sewerage Department (DWSD or “local system”) focused on serving the customers and needs of the local City of Detroit water and sewer system. That terms of that MOU were the foundation for a lease agreement executed on June 12, 2015 between the City of Detroit and the GLWA. That lease agreement established an operational effective date of January 1, 2016 to provide time for drafting and execution of a number of related agreements and to plan for “Day One”.

Budget Scope

The operational effective date of January 1, 2016 occurred mid-way through FY 2016 for both organizations. The essence of the transaction is that the “existing DWSD” was bifurcated into two new operating entities: the new DWSD local system and the GLWA regional authority system. For that reason, a “bifurcated budget” beginning January 1, 2016 and ending June 30, 2016 was approved by the GLWA Board on December 9, 2015 for the regional system.¹ Given the short timeline since the operational effective date, and significant back office efforts to stand up the new entities, it is too early to present meaningful, regional authority actual results for FY 2016. This document therefore focuses on the plans for FY 2017 and FY 2018.

It should also be noted that the foundational documents for the Authority establish a biennial budget process, a five year capital plan, and a robust quarterly budget amendment process document with fiscal notes to ensure the highest level of accountability. This budget presented is the first biennial budget for the GLWA.

This overview and commentary include a discussion of the following key topics to understand the context of GLWA’s core financial plan.

- ✓ 4% Revenue Requirement Commitment & Revenue Stability
- ✓ Managing Charge Stability for Our Customers
- ✓ Water Residential Assistance Program
- ✓ Closed Loop Lease Payment
- ✓ Closed Legacy Payment Obligations

¹ Each “system” encompasses a water system and a sewer system.

The 4% Revenue Requirement Commitment & Revenue Stability

The former DWSD began an optimization process in 2012 to reduce expenses. In addition, the DWSD also began the process to stabilize revenues. The objectives of both efforts was to vastly improve the long-term sustainability of the system.

That optimization effort revealed opportunities to significantly control costs. This resulted in a commitment to preserve the “revenue requirement” to increase, on an annual basis, by no more than 4%. The revenue requirement reflects those items which can be controlled by board policy and good management: controlled expenses, managing debt burden, and increasing cash reserves. This commitment to increase the revenue requirement was memorialized in the MOU that established the regional authority.

Board policy and management cannot, however, control changing water use demand patterns. Weather patterns, in particular over the past few years, have been a contributor to decreased water volume demand. While the “revenue requirement” addresses the cash outflows of the system, revenues, based on customer volume demands, are not controllable. To stabilize the revenues, the GLWA carried forward relatively new policies from DWSD. The wholesale customer charge model is based upon a 60% fixed cost recovery and 40% of volume charges. To the extent that an individual customer, or the system as a whole, experience declining volumes, the annual service charges may increase beyond 4%.

The wholesale sewer rate simplification methodology became effective July 1, 2014. Under this revenue-setting methodology, costs are allocated based on each customer’s historical use of the system. Each customer’s share of system costs is set for three years. Billings are based on one-twelfth of the annual revenue requirement as shown on the “Sewer System Schedule of Charges” provided in this document. The sewer system’s wholesale revenue plan has a high degree of stability.

Managing Charge Stability for Our Customers

Given that the wholesale water system charges are exposed to some level of fluctuation based on demand volumes, the GLWA has considered methods to smooth out known or material factors which could cause charges to rise higher than 4%. The need for a smoothing approach is urgent given that the GLWA will lose Genesee County Drain Commission (GCDC) as a customer in the next fiscal year. The likely outcome is a water revenue loss of approximately \$18 million dollars, which could drive a double digit charge adjustment for FY 2018.

To offset this revenue risk, it is proposed that realized savings in FY 2018 that result in increased net revenues be designated in the surplus fund to mitigate future increases in customer charges. An example is estimated bond refunding savings of \$5.5 million in FY 2017. The vehicle for this revenue charge stability approach is consistent with Section 503 of each of the master bond ordinances which defines the flow of funds and use of revenues deposited in the

Receiving Fund with the Trustee. That section provides that “(A)ny amounts remaining in the Receiving Fund as of the last day of each Fiscal Year shall be applied against future years’ Revenue deposit obligations under Section 503, unless directed by the Authority within thirty (30) days of completion of the Fiscal Year’s audited financial statements to be deposited in the Surplus Fund.” Further, Section 510 of each of the master bond ordinances provides that amounts on deposit from time to time in the Surplus Fund may, at the option of the Authority, be withdrawn on written request to the Trustee and used for any purpose related to the System. The approach would then be to utilize surplus funds to either (i) be applied as a credit against future years’ revenue deposit obligations (and mitigate to the extent of such credit any need to charge customers for such amounts) or (ii) deposited in the Surplus Fund and used at the direction of the Authority for the same purpose.

The process by which savings realized would be earmarked to stabilize charges would be through the quarterly budget amendment process.

Water Residential Assistance Program

The MOU and Water and Sewer Leases included a provision to establish a Water Residential Assistance Program (“WRAP”). This program is funded at 0.5% of base budgeted operating revenues of the water and sewer systems to provide assistance to indigent residential customers throughout the 126 communities served by GLWA. The WRAP was designed to provide monthly bill assistance, arrearage assistance and minor plumbing repairs to qualified applicants that have income at or below 150% of the federal poverty threshold. The initial allocation of funds to the City of Detroit and communities in Wayne, Macomb and Oakland Counties is in the same proportion of revenue that customers within those geographic boundaries pay into the program. Based on the FY 2017 Water and Sewer Budgets, the WRAP funding is estimated to be \$4.7 million and at \$4.92 million in FY 2018. WRAP is administered by Wayne Metro and other community action agency alliance partners.

Closed Loop Lease Payment

The Lease agreement between the City of Detroit and the Great Lakes Water Authority, provides that the Authority shall pay an annual amount of \$22.5 million for the regional water system and \$27.5 million for the regional sewer system. The allocation of these amounts, totaling \$50 million, shall be subject to review and adjustment by the Authority every three to five years consistent with the method of allocation of other common-to-all charges between the regional water system and the regional sewer system.

The lease payment is referred to as a closed loop system because the lease payment by the Authority stays within the local water and sewer system for the benefit of the water and sewer system. The City of Detroit can achieve this in one of three ways (or some combination). The lease payment may be used to:

1. pay the principal of and interest on bonds issued to finance the cost of water and sewer system improvements to the Detroit local system; and/or
2. pay the City's share of the principal of and interest on bonds issued to finance the cost of common-to-all improvements to the leased water and sewer facilities; and/or
3. pay the cost of improvements to the Detroit local water and sewer system facilities.

Closed Legacy Benefit Plan Costs

A significant outcome of the City of Detroit's Chapter 9 bankruptcy plan of adjustment was the restructuring of its pension and retiree healthcare plan (otherwise referenced as other post-employment benefits or OPEB). The plan of adjustment required annual payments by the DWSD for these closed plans. The first payment was in FY 2015. With the stand-up of the Authority on January 1, 2016, this annual commitment is allocated between the local and regional systems as shown in the table below.

Pension: In accordance with the Plan of Adjustment, the water and sewer systems are required to annually contribute a total of \$42.9 million per year, plus \$2.5 million per year in administrative expenses, for a total of \$45,400,000 for the nine Fiscal Years beginning on July 1, 2014 and ending on June 30, 2023 to the City of Detroit General Retirement System (GRS). The required funding under the Plan of Adjustment represents a substantial reduction in the Systems' overall funding obligation from the pre-bankruptcy liability. After the initial nine-year period through June 30, 2023, the Systems' will remain responsible for any of the remaining allocable share of the unfunded accrued actuarial liability (UAAL) of GRS. Under the Plan of Adjustment, an assumed investment rate of 6.75% and then-available mortality tables were utilized in calculating the potential size of the Systems' remaining liability. An updated GRS actuarial report has been received by the City, calculated as of June 30, 2014, which utilizes an assumed rate of return of 6.75% and updated mortality tables, and sets forth a UAAL for the Systems' of approximately \$352.4 million, which is approximately \$60 million more than contemplated in the Plan of Adjustment. The more recent reports indicate a total UAAL for the Department as of June 30, 2023 of between \$100 million to \$125 million. For Fiscal Year 2024, the Systems' annual contribution is projected to be approximately \$12.7 million in that actuarial report. The Systems will not pay any more than its actual, full, allocable share of the UAAL of the closed GRS plan or for its fair share of administrative expenses pursuant to a subsequent agreement between the City of Detroit, General Retirement System, and the Authority. The remaining allocable share of unfunded pension liability will be monitored on an annual basis to proactively plan for the increased liability over the remaining period.

OPEB and Pension Obligation Certificates: The Systems are responsible for an allocable share of the portion of the City of Detroit 30 year B Notes relating to settlement of OPEB claims and 10 year C Notes related to the Systems' prior allocable share of the City's pension obligation certificates. The Systems' allocable portions of those settlement payments, in the form of New B/C Notes, is equal to approximately \$105 million. Annual debt service for the next two years is \$2,923,000.

Closed Legacy Benefit Plan Costs

| Legacy Benefit Payment Allocable to: | FY 2017 | | | | FY 2018 | | | |
|--|----------------------|----------------------|----------------------|------|----------------------|----------------------|----------------------|------|
| | Water | Sewer | Total | % | Water | Sewer | Total | % |
| Regional System O&M Expense | \$ 6,037,100 | \$10,838,400 | \$16,875,500 | | \$ 6,037,100 | \$10,838,400 | \$16,875,500 | |
| Accelerated Pension from Regional System | <u>6,035,200</u> | <u>11,096,500</u> | <u>17,131,700</u> | | <u>6,035,200</u> | <u>11,096,500</u> | <u>17,131,700</u> | |
| Subtotal - Allocable to Regional System | 12,072,300 | 21,934,900 | 34,007,200 | 70% | 12,072,300 | 21,934,900 | 34,007,200 | 70% |
| Local System O&M Expense | 4,262,900 | 2,861,600 | 7,124,500 | | 4,262,900 | 2,861,600 | 7,124,500 | |
| Accelerated Pension from Local System | <u>4,261,800</u> | <u>2,929,700</u> | <u>7,191,500</u> | | <u>4,261,800</u> | <u>2,929,700</u> | <u>7,191,500</u> | |
| Subtotal - Allocable to Local System | <u>8,524,700</u> | <u>5,791,300</u> | <u>14,316,000</u> | 30% | <u>8,524,700</u> | <u>5,791,300</u> | <u>14,316,000</u> | 30% |
| Total Annual Legacy Benefit Payment | <u>\$ 20,597,000</u> | <u>\$ 27,726,200</u> | <u>\$ 48,323,200</u> | 100% | <u>\$ 20,597,000</u> | <u>\$ 27,726,200</u> | <u>\$ 48,323,200</u> | 100% |
| Water & Sewer System Commitment Per Bankruptcy Plan of Adjustment | | | | | | | | |
| Annual Payment for Closed GRS Plan through 2023 | | | \$ 45,400,000 | | | | \$ 45,400,000 | |
| Annual Contribution to the B/C Note Obligations Related to OPEB | | | <u>2,923,200</u> | | | | <u>2,923,200</u> | |
| Total | | | <u>\$ 48,323,200</u> | | | | <u>\$ 48,323,200</u> | |

The pension and B/C note payments are allocated between the Operations & Maintenance Expense (O&M) for an estimated amount of what would have been the normal annual pension expense. The remainder is considered an advance payment of a liability and therefore, a non-O&M expense. (For simplicity on Schedule 2, the amounts are labeled as “GRS Pension”; the substance includes both the payment to GRS and payment of the allocable share of the B/C note to the City of Detroit.)

Reviewing this Budget

The **Core Financial Plan Schedules** address the macro view of the GLWA and unique points of intersection between the GLWA and DWSD as outlined in the master bond ordinance, lease agreements, services agreements, pension agreement, shared services agreement. Those documents may be found online at www.glwater.org.

The **Operating Financial Plan Schedules** provide a better understanding of GLWA’s operations, staffing, and departmental budget plans.

The last section of the budget document provides additional information related to **Debt Management** and the **Schedule of Charges**.

Budget Calendar

FY 2017/18 Financial Planning Cycle

The Great Lakes Water Authority (GLWA) FY 2017 and 2018 Financial Planning Cycle includes:

1. FY 2017 -2018 biennial budget
2. FY 2017 – 2021 Five Year Capital Improvement Plan
3. FY 2017 Schedule of Revenues and Charges

The operational effective date for the regional system assets by GLWA began on January 1, 2016. The schedule below reflects planning for the first full operating fiscal year for the GLWA.

| Date | Activity |
|-----------------------------|--|
| Tuesday, November 17, 2015 | Customer Rollout Meeting #1 – Capital Improvement Plan |
| Tuesday, November 17, 2015 | Customer Rollout Meeting #2 – Units of Service |
| Tuesday, December 1, 2015 | GLWA and DWSD (City) exchange shared services to be provided and costs (Shared Services Agreement 5.4) |
| Friday, January 1, 2016 | DWSD - Preliminary two year budget forecast Including key assumptions and impact statement due to GLWA (Services Agreement 5.3) |
| Wednesday, January 13, 2016 | GLWA Workshop - Customer Outreach Program and Schedule |
| Thursday, January 14, 2016 | Customer Rollout Meeting #3 - Status Report: FY 2017/18 Biennial Budget |
| Friday, January 15, 2016 | GLWA Audit Committee Meeting - Status Report re: FY 2017/18 Biennial Budget Request |
| Wednesday, January 20, 2016 | Internal - Deadline for Budget Request for Cost of Service Analysis |
| Tuesday, January 26, 2016 | GLWA Capital Planning Committee – Present Proposed FY 2017-21 Capital Improvement Plan for Review |
| Wednesday, January 27, 2016 | GLWA Board Meeting - Present Proposed FY 2017 Schedule of Revenues and Charges and Request for FY 2017/18 Biennial Budget Public Hearing |
| Thursday, January 28, 2016 | Customer Rollout Meeting #4 - Proposed Service Charges |
| Monday, February 1, 2016 | DWSD – Current capital improvement plant due to GLWA (Services Agreement 5.3d(i)) |
| Monday, February 1, 2016 | Publish notice of the hearing by publication in a newspaper of general circulation (B) |
| Friday, January 29, 2016 | Mail Notice to Customers of Public Hearing to be held on March 2, 2016 (minimum 30 days prior to Act 279 Public Hearing) (D) |

| Date | Activity |
|------------------------------|---|
| Friday, February 5, 2016 | GLWA Audit Committee Meeting – Review of FY 2017 Proposed Schedule of Revenues and Charges and FY 2017/18 Biennial Budget Request |
| Wednesday, February 17, 2016 | DWSD FY 2017 – FY 2021 Capital Improvement Plan approved |
| Wednesday, February 24, 2016 | GLWA Board Workshop – Review of Proposed FY 2017 Schedule of Revenues and Charges, FY 2017/18 Biennial Budget, and FY 2017-21 Capital Improvement Plan |
| Wednesday, March 2, 2016 | GLWA Board Meeting – Public Hearing on FY 2017/18 Biennial Budget (A) |
| Wednesday, March 2, 2016 | GLWA Board Meeting – Public Hearing on FY 2017 Schedule of Revenues and Charges (Act 279, minimum 120 days before effective date) (C) |
| Thursday, March 16, 2016 | DWSD FY 2017 & 2018 Budget Public Hearing and Approval |
| Wednesday, March 23, 2016 | DWSD adopted biennial budget due to GLWA (Services Agreement 5.3B) |
| Sunday, May 1, 2016 | DWSD provides direction to GLWA on how to apply lease payment (Services Agreement 4.3) |
| Wednesday, May 11, 2017 | GLWA Board Meeting – FY 2017 Schedule of Sewer System Charges |
| Wednesday, May 25, 2017 | GLWA Board Meeting – Pending - Proposed Approval of FY 2017/18 Biennial Budget, FY 2017 Schedule of Water Charges, and FY 2017-21 Capital Improvement Plan |

(A) thru (D) - The above schedule is designed to meet applicable statutory and contractual requirements with excerpts shown below.

- A. **Uniform Budgeting and Accounting Act, Act 2 of 1968, Section 141.434**, “Before final passage of a general appropriations act by the legislative body, a public hearing shall be held as required by 1963 (2nd Ex Sess) PA 43, MCL 141.411 to 141.415, and the open meetings act, 1976 PA 267, MCL 15.261 to 15.275.” (For purposes of Public Act 2, the GLWA Board is the legislative body.)
- B. **Budget Hearings of Local Governments, Act 43 of 1963 (2nd Ex. Sess.), Section 141.412**, “The local unit shall give notice of the hearing by publication in a newspaper of general circulation within the local unit at least 6 days before the hearing.” (For purposes of Public Act 2, the GLWA Board is a local unit.)
- C. **Home Rule City Act, Act 279 of 1909, Section 117.5e**, “Municipal water or sewage system; annual audit; public hearing before proposed rate increase. A municipal water

or sewage system established by a city incorporated under this act which serves more than 40% of the population of the state shall:(b) Hold at least 1 public hearing at least 120 days before a proposed rate increase is scheduled to take effect. Each hearing shall be conducted in compliance with Act No. 267 of the Public Acts of 1976, being sections 15.261 to 15.275 of the Michigan Compiled Laws. Notice of the time, date, and place of each hearing shall be given in the manner required by Act No. 267 of the Public Acts of 1976, shall be prominently printed in a daily newspaper of general circulation within the area, and shall be mailed to each city, village, or township served by the system not less than 30 days before each hearing. A final vote by the governing body of the city to implement a proposed rate increase shall not be taken until the hearings provided for in this subdivision are concluded and the results of those hearings are considered by the city's governing body.” (Emphasis added)

It should be noted that the Home Rule City Act does not apply to GLWA. It is relevant to GLWA’s planning cycle, however, as it is referenced in the *Wholesale Customer Model Water Contract* as noted below.

- D. **GLWA Wholesale Customer Model Water Contract Section 7.02** provides: “Notification of Rates. As soon as possible in the ratemaking process, the Board shall provide information on proposed rates and the draft data and information used in the calculation of proposed rates in a format that will enable Customer to assist in the ratemaking process. Not less than thirty calendar days prior to the hearing required by Act 279, the Board shall provide Customer with written notice of a proposed rate and the underlying data used to calculate the rate. The Board shall meet with Customer to review the rate and the data.” (Emphasis added; Act 279 is the Home Rule City Act noted above.)

Core Financial Plan Schedules

The Great Lakes Water Authority budget is presented on an enterprise level utilizing five key schedules to depict the Core Financial Plan. Those schedules are listed below

Schedule 1 - Wholesale Revenue Requirements from Charges

This schedule presents the Authority's direct costs of operations plus its "allocable" share of debt and other long-term liabilities. This schedule is helpful when analyzing regional revenue requirements as a basis for establishing charges to customers, managing cashflow, and as an internal measure of financial performance.

Schedule 2 - Sources of Revenues and Use of Revenue Requirements – Flow of Funds Basis per Master Bond Ordinance

This schedule is most important for parties that want to understand the Authority's financial plan as it relates to payment of outstanding debt. In particular, this schedule demonstrates alignment of the financial plan with the flow of funds in the Master Bond Ordinance. Of particular note is that both regional wholesale and local system revenues are deposited into a trust for the ultimate benefit of the GLWA bondholders that provides for systematic distribution of funds in a legal, prioritized manner by the trustee (i.e. the flow of funds).

Schedule 3A - Operations & Maintenance Expense by Budgetary Division

Schedule 3B - Operations & Maintenance Expense by Expense Category

Schedule 3C – Personnel Costs

These three schedules provide a snapshot of what operations & maintenance (O&M) expenses are budgeted and provide a solid plan to measure performance throughout the year. Additional information may be found in the departmental budgets presented in the Operating Area Financial Plan section.

Schedule 4 - Debt Service Coverage Calculations Pursuant to Master Bond Ordinance

Debt service coverage is a key measure of financial strength of a system. This schedule demonstrates the debt service coverage as well as the pledge of revenues from the local and regional system for payment of outstanding bond obligations.

Schedule 5 – Improvement & Extension Fund and Construction Bond Fund

In addition to an operations and maintenance fund for each system, the GLWA has, for each system, an Improvement & Extension Fund (I&E) and a Bond Construction Fund.

Inflows to the I&E Fund represent revenues in excess of expenses carried forward on a monthly and annual basis. Building the I&E Fund over time is a key financial objective of GLWA to strike

an improved balance between revenue financed capital improvements versus issuing long-term debt. Outflows from the I&E Fund presently include non-construction capital outlay such as building improvements, machinery, equipment, vehicles, furniture, office equipment, hardware, and software.

Inflows to the Bond Construction Funds include proceeds from the sale of bonds and investment income on those funds. Outflows are for the costs of constructing capital assets.

Great Lakes Water Authority
Schedule 1 – Wholesale Revenue Requirements from Charges
FY 2017 and FY 2018

| Revenues | FY 2017 Water Fund | FY 2017 Sewer Fund | FY 17 Combined (Informational Only) | FY 2018 Water Fund | FY 2018 Sewer Fund | FY 18 Combined (Informational Only) |
|--|-----------------------|-----------------------|---|-----------------------|-----------------------|---|
| 1 O&M Expenses Allocable to Regional System | \$ 111,879,200 | \$ 175,858,900 | \$ 287,738,100 | \$ 116,354,400 | \$ 182,893,300 | \$ 299,247,700 |
| 2 General Retirement System (GRS) Pension | | | | | | |
| Allocable to Regional System O&M Expense | 6,037,100 | 10,838,400 | 16,875,500 | 6,037,100 | 10,838,400 | 16,875,500 |
| 3 Debt Service Allocable to Regional System | 159,277,500 | 222,418,500 | 381,696,000 | 157,909,200 | 222,372,700 | 380,281,900 |
| 4 GRS Accelerated Pension from Regional System | 6,035,200 | 11,096,500 | 17,131,700 | 6,035,200 | 11,096,500 | 17,131,700 |
| 5 Water Residential Assistance Program (WRAP) | | | | | | |
| Contribution from Regional System | 1,645,700 | 2,299,800 | 3,945,500 | 1,711,500 | 2,391,800 | 4,103,300 |
| 6 Lease Payment to Local System I&E Account | 22,500,000 | 27,500,000 | 50,000,000 | 22,500,000 | 27,500,000 | 50,000,000 |
| Net Revenues Allocable to Regional System | | | | | | |
| 7 Improvement & Extension Account (A) | 23,838,500 | 14,066,400 | 37,904,900 | 33,914,300 | 25,548,900 | 59,463,200 |
| 8 Total Budgeted Revenue Requirements | 331,213,200 | 464,078,500 | 795,291,700 | 344,461,700 | 482,641,600 | 827,103,300 |
| 9 Less: Non-Operating Revenue (Regional System) | (2,077,600) | (4,115,800) | (6,193,400) | (2,316,000) | (4,569,100) | (6,885,100) |
| 10 Plus: Bad Debt True-Up Recovery Allocable to Regional System I&E Account | - | 7,631,700 | 7,631,700 | - | 7,631,700 | 7,631,700 |
| 11 Total Revenue Requirements from Charges | \$ 329,135,600 | \$ 467,594,400 | \$ 796,730,000 | \$ 342,145,700 | \$ 485,704,200 | \$ 827,849,900 |

(A) Reconciliation of Regional System Net Revenues Above with "Schedule 2"

| | | | | | | |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Line 7 plus Line 10 | \$ 23,838,500 | \$ 21,698,100 | \$ 45,536,600 | \$ 33,914,300 | \$ 33,180,600 | \$ 67,094,900 |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|

Great Lakes Water Authority
Schedule 2 - Sources of Revenues and Use of Revenue Requirements – Flow of Funds Basis per Master Bond Ordinance
FY 2017 and FY 2018

| Revenues | FY 2017 Water Fund | FY 2017 Sewer Fund | FY 17 Combined (Informational Only) | FY 2018 Water Fund | FY 2018 Sewer Fund | FY 18 Combined (Informational Only) |
|---|-----------------------|-----------------------|---|-----------------------|-----------------------|---|
| 1 Regional System Wholesale Revenues | \$ 313,645,300 | \$ 280,290,300 | \$ 593,935,600 | \$ 326,035,700 | \$ 291,074,600 | \$ 617,110,300 |
| 2 DWSD Local System Revenues | 87,851,200 | 255,207,300 | 343,058,500 | 89,935,000 | 263,866,000 | 353,801,000 |
| 3 Miscellaneous Revenue (Local System) | 4,750,000 | 5,000,000 | 9,750,000 | 4,750,000 | 5,000,000 | 9,750,000 |
| 4 Non-Operating Revenue (Regional System) | 2,077,600 | 4,115,800 | 6,193,400 | 2,316,000 | 4,569,100 | 6,885,100 |
| 5 Total Revenues | \$ 408,324,100 | \$ 544,613,400 | \$ 952,937,500 | \$ 423,036,700 | \$ 564,509,700 | \$ 987,546,400 |
| Revenue Requirements | | | | | | |
| Operations & Maintenance Expense | | | | | | |
| 6 Regional System Wholesale Expenses | \$ 111,879,200 | \$ 175,858,900 | \$ 287,738,100 | \$ 116,354,400 | \$ 182,893,300 | \$ 299,247,700 |
| 7 Local System Expenses | 33,596,300 | 41,535,500 | 75,131,800 | 34,013,600 | 42,854,500 | 76,868,100 |
| 8 GRS Pension allocable to Regional System | 6,037,100 | 10,838,400 | 16,875,500 | 6,037,100 | 10,838,400 | 16,875,500 |
| 9 GRS Pension allocable to Local System | 4,262,900 | 2,861,600 | 7,124,500 | 4,262,900 | 2,861,600 | 7,124,500 |
| 10 Total Operations & Maintenance Expense | 155,775,500 | 231,094,400 | 386,869,900 | 160,668,000 | 239,447,800 | 400,115,800 |
| 11 <i>Net Revenues after Operations & Maintenance Expense</i> | <i>252,548,600</i> | <i>313,519,000</i> | <i>566,067,600</i> | <i>262,368,700</i> | <i>325,061,900</i> | <i>587,430,600</i> |
| Non-operating Activities | | | | | | |
| 12 Debt Service Allocable to Regional System | 159,277,500 | 222,418,500 | 381,696,000 | 157,909,200 | 222,372,700 | 380,281,900 |
| 13 Debt Service Allocable to Local System | 31,219,800 | 22,567,400 | 53,787,200 | 31,219,800 | 22,567,400 | 53,787,200 |
| 14 GRS Accelerated Pension from Regional System | 6,035,200 | 11,096,500 | 17,131,700 | 6,035,200 | 11,096,500 | 17,131,700 |
| 15 GRS Accelerated Pension from Local System | 4,261,800 | 2,929,700 | 7,191,500 | 4,261,800 | 2,929,700 | 7,191,500 |
| 16 WRAP Contribution from Regional System | 1,645,700 | 2,299,800 | 3,945,500 | 1,711,500 | 2,391,800 | 4,103,300 |
| 17 WRAP Contribution from Local System | 431,100 | 354,800 | 785,900 | 448,000 | 369,000 | 817,000 |
| 18 DWSD Budget Stabilization Fund Contribution | 360,400 | 2,654,200 | 3,014,600 | 360,400 | 2,654,200 | 3,014,600 |
| 19 Total Non-operating Activities | 203,231,500 | 264,320,900 | 467,552,400 | 201,945,900 | 264,381,300 | 466,327,200 |
| 20 <i>Net Revenues Available for Revenue Financed Capital</i> | <i>49,317,100</i> | <i>49,198,100</i> | <i>98,515,200</i> | <i>60,422,800</i> | <i>60,680,600</i> | <i>121,103,400</i> |
| Reserve for Revenue Financed Capital from Net Revenues | | | | | | |
| 21 Lease Payment to Local System I&E Account | 22,500,000 | 27,500,000 | 50,000,000 | 22,500,000 | 27,500,000 | 50,000,000 |
| 22 Net Revenues Allocable to Local System | 2,978,600 | - | 2,978,600 | 4,008,500 | - | 4,008,500 |
| 23 Net Revenues Allocable to Regional System | 23,838,500 | 21,698,100 | 45,536,600 | 33,914,300 | 33,180,600 | 67,094,900 |
| 24 Reserve for Revenue Financed Capital Both Systems | 49,317,100 | 49,198,100 | 98,515,200 | 60,422,800 | 60,680,600 | 121,103,400 |
| 25 Total Revenue Requirements | \$ 408,324,100 | \$ 544,613,400 | \$ 952,937,500 | \$ 423,036,700 | \$ 564,509,700 | \$ 987,546,400 |

**Great Lakes Water Authority
Schedule 3A – Operations & Maintenance Expense by Budgetary Division
FY 2017 and FY 2018**

| Budgetary Divisions | FY 2017 | | FY 2018 | |
|---|-----------------------|-------------------|-----------------------|-------------------|
| | FY 2017 | % of Total | FY 2018 | % of Total |
| A Water System Operations | \$ 64,904,252 | 23% | \$ 66,062,055 | 22% |
| B Wastewater System Operations | 121,912,047 | 42% | 121,349,057 | 41% |
| C Centralized Services | 62,989,396 | 22% | 71,113,432 | 24% |
| D Administrative & Other Services | 37,932,405 | 13% | 40,723,156 | 14% |
| Total Operations & Maintenance | \$ 287,738,100 | 100% | \$ 299,247,700 | 100% |

A) Water System Operations include water quality services, operation of five water treatment plants, 20 pumping stations, engineering, laboratory services, and management of those activities.

B) Wastewater System Operations include wastewater operations (process control, primary, secondary, dewatering, and incineration), biosolids dryer facility and hauling, combined sewer overflow management, nine combined sewer overflow facilities, six pumping stations, engineering, industrial waste control, laboratory services, and management of those facilities.

C) Centralized Services include operational functions that serve both water and wastewater operations. This includes the chief planning office (system planning, system analytics, asset management and capital planning, and energy management), field services (operations, engineering, and fleet), and systems control.

D) Administrative & Other Services include the Board of Directors, Chief Executive Officer, Chief Administrative Officer, General Counsel, public affairs, organizational development, risk management & safety, financial services group (Chief Financial Officer, finance, treasury, public finance, procurement, internal audit & lease administration, and transformation), information technology (Chief Information Officer, business applications, enterprise applications, infrastructure, service desk), Security & Integrity, and transition services.

Great Lakes Water Authority
Schedule 3B – Operations & Maintenance Expense by Expense Category
FY 2017 and FY 2018

| Operations & Maintenance Expense Category | FY 2017 | FY 2017 % of Total | FY 2018 | FY 2018 % of Total |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 1.1 Salaries & Wages | \$ 54,575,824 | 19% | \$ 55,981,614 | 19% |
| 1.2 Overtime | 8,532,400 | 3% | 8,658,400 | 3% |
| 1.3 Employee Benefits | 20,494,988 | 7% | 20,938,897 | 7% |
| 1.4 Personnel Transition Adjustment | (6,202,000) | -2% | (6,102,000) | -2% |
| 2 Transition Services | 14,772,140 | 5% | 15,518,053 | 5% |
| Total Personnel Services | 92,173,352 | 32% | 94,994,964 | 32% |
| 3.1 Electric | 51,164,929 | 18% | 50,233,441 | 17% |
| 3.2 Gas | 9,314,882 | 3% | 9,316,322 | 3% |
| 3.3 Other Utilities | 6,084,398 | 2% | 6,084,398 | 2% |
| Total Utilities | 66,564,209 | 23% | 65,634,161 | 22% |
| 4 Chemicals | 20,538,121 | 7% | 20,576,957 | 7% |
| 5 Supplies & Other | 27,045,695 | 9% | 25,233,993 | 8% |
| 6 Contractual Services | 107,534,211 | 37% | 108,659,944 | 36% |
| 7 Capital Program Allocation | (26,376,921) | -9% | (25,233,021) | -8% |
| 8 Shared Services | (10,306,908) | -4% | (10,721,248) | -4% |
| 9 Unallocated Reserve | 10,566,341 | 4% | 20,101,950 | 7% |
| Total Operations & Maintenance Expense | \$ 287,738,100 | 100% | \$ 299,247,700 | 100% |

Personnel Services Costs include traditional categories (salaries & wages, overtime, benefits) in addition to two categories that reflect the transitional nature of the Great Lakes Water Authority (GLWA) as a new entity. Transition services represent the use of contractual and/or temp to hire personnel that are placed in positions that would otherwise be filled by employees. The personnel transition adjustment reflects savings that will be realized as the reliance on contractual services declines in addition to serving as an efficiency target for budgetary control.

Capital Program Allocation denotes a portion of operations and maintenance expenses that are properly allocable to capital program management overhead.

Shared Services accounts for recoverable operations and maintenance costs pursuant to a shared services agreement executed in December 2015 with the City of Detroit. Shared services largely fall in the information technology and security budgets.

Unallocated Reserve & Repair Contingency is a new budget category that reflects a reserve for unforeseen operational needs. In particular, the FY 2017 and 2018 budget placed downward pressure on individual budgetary lines to remove contingencies which were previously within individual departments. Use of the unallocated reserve & repair contingency will be aligned with a new fiscal note process to increase accountability.

**Great Lakes Water Authority
Schedule 3C – Personnel Costs
FY 2017 and FY 2018**

As a new entity, GLWA is in a transitional phase – especially in skilled trades and professional positions. The latter is largely due to back office functions, such as finance and procurement, that were most impacted by the bifurcation effort. At the time of preparing this budget, there is a 25% positive variance between filled positions and the staffing plan. The result is a reliance on contractual arrangements to backfill vacancies and to bridge the timeline while recruitments efforts are in progress. The overall strategy is careful management of evaluating short-term and long-term operational needs.

Overall Personnel Budget

The overall personnel budget includes salaries, wages, overtime, employee benefits, transition services, as well as a “personnel transition adjustment”. As noted on the previous page, “transition services” represent the use of contractual and/or temp to hire personnel that are placed in positions that would otherwise be filled by employees. The “personnel transition adjustment” reflects savings that will be realized as the reliance on contractual services declines in addition to serving as an efficiency target for budgetary control.

Budget with Staffing Plan at 100% with "Transition Adjustment"

| Personnel Expense Categories | FY 2017 | FY 2018 |
|-------------------------------------|----------------------|----------------------|
| 1.1 Salaries & Wages | \$ 54,575,824 | \$ 55,981,614 |
| 1.2 Overtime | 8,532,400 | 8,658,400 |
| 1.3 Employee Benefits | 20,494,988 | 20,938,897 |
| 1.4 Personnel Transition Adjustment | (6,202,000) | (6,102,000) |
| 2 Transition Services | 14,772,140 | 15,518,053 |
| Total Personnel Expenses | \$ 92,173,352 | \$ 94,994,964 |

As it relates to wastewater treatment plant staffing, the proposed level of staffing plan is consistent with ongoing compliance and regulatory evaluation (FTE = full-time equivalent employee).

Staffing Plan at 100%

| Group | FY 2017 FTE Count | FY 2018 FTE Count |
|--|------------------------------|------------------------------|
| A Water System Operations | 187 | 187 |
| B Wastewater System Operations | 461 | 442 |
| C Centralized Services | 184 | 197 |
| D Administrative & Other Services | 273 | 275 |
| Grand Total | 1,105 | 1,101 |

The table below quantifies the “transition contracts” at 110 FTE (i.e. where staff vacancies are backfilled with contractual services) as well as the level of effort currently underway to advertise and evaluate potential employee candidates. These amounts are measures of the level of significant organizational change being managed to achieve an optimized and refocused regional authority.

Measures of Organizational Change

| Group | Transition Contracts | Vacant at 1.31.2016 |
|-----------------------------------|-----------------------------|----------------------------|
| A Water System Operations | 9 | 39 |
| B Wastewater System Operations | 22 | 139 |
| C Centralized Services | 38 | 71 |
| D Administrative & Other Services | 41 | 64 |
| Total FTE Positions | 110 | 313 |

Given that a number of the staff vacancies are at the skilled trade and professional level, the average budget per transition services FTE is higher than the personnel services overall. As these positions become filled or re-evaluated, the average budget per FTE will decrease. The personnel transition adjustment accounts for a portion of this budget variance that will be realized as positions are filled.

Average Budget per FTE

| Personnel Categories | FY 2017 | FY 2018 |
|--|----------------|----------------|
| Employee Services Average Budget per FTE | \$ 77,825 | \$ 79,912 |
| Transition Services Average Budget per FTE | 134,292 | 141,073 |
| Total Personnel Average Budget per FTE | 83,449 | 86,316 |

Modernized Employee Benefit Design

It should be noted that, as a new employer, GLWA implement a modern employee benefit design. The employee benefits program is competitive to attract and retain employees balanced with no risk of unfunded long-term liabilities. The pension and retiree healthcare benefit utilize a defined contribution formula.

Each budgeted position is assigned a fixed and variable cost element. Fixed costs include medical and dental insurance based on per employee per month fee. Variable costs include federal taxes, Medicare, and pension. The medical plan is partially self-funded. Since GLWA is a new employer, it does not have extensive claims history for its employee population. This means that the GLWA will need to carefully monitor its claims experience in its first year. As a hedge against this claims experience risk, an attachment point of \$300,000 has been established for the medical plan. This is the dollar threshold at which a stop-loss insurance contract will pay for an individual or claim.

The table below is a summary of the employee benefits in all departments and the fixed and variable portion of the benefits costs.

| | FY 2017 | | FY 2018 | |
|--|----------------------|-------------------|----------------------|-------------------|
| Employee Benefits Budget - All Departments | \$ | 20,684,488 | \$ | 21,134,097 |
| Employee Benefits - Fixed & Variable Elements | FY 2017 | % | FY 2018 | % |
| Fixed Cost (1,105 FTE less 110 TSC)* | \$ 10,415,873 | 50% | \$ 10,415,873 | 49% |
| Variable (Salaries/Wages @ 19%) | 10,369,407 | 50% | 10,636,507 | 50% |
| Variable (Overtime @ 19%) | 1,621,156 | 8% | 1,645,096 | 8% |
| Reserve for Claims and Market Adjustments | 628,639 | 3% | 777,992 | 4% |
| Personnel Transition Budget - Benefit Portion | (2,350,586) | -11% | (2,341,370) | -11% |
| Total Employee Benefits | \$ 20,684,488 | 100% | \$ 21,134,097 | 100% |

*FTE = Full-time Equivalent; TSC = Transition Services Contracts

The reserve for claims and adjustments is set at a modest amount to address mid-year benefit plan cost adjustments (the medical, dental, and vision plan are based on a calendar year – rate adjustments would be effective January 1st). The personnel transition budget adjust represents the employee benefit portion of that contra-expense across all budgets.

**Great Lakes Water Authority
Schedule 4 - Debt Service Coverage Calculations per Master Bond Ordinance
FY 2017 and FY 2018**

| Revenues | FY 2017 Water Fund | FY 2017 Sewer Fund | FY 17 Combined (Informational Only) (a) | FY 2018 Water Fund | FY 2018 Sewer Fund | FY 18 Combined (Informational Only) (a) |
|--|-------------------------------|-------------------------------|--|-------------------------------|-------------------------------|--|
| 1 Regional System Wholesale Revenues | \$ 313,645,300 | \$ 280,290,300 | \$ 593,935,600 | \$ 326,035,700 | \$ 291,074,600 | \$ 617,110,300 |
| 2 Local System Revenues | 87,851,200 | 255,207,300 | 343,058,500 | 89,935,000 | 263,866,000 | 353,801,000 |
| 3 Miscellaneous Revenue (Local System) | 4,750,000 | 5,000,000 | 9,750,000 | 4,750,000 | 5,000,000 | 9,750,000 |
| 4 Non-Operating Revenue (Regional System) | 2,077,600 | 4,115,800 | 6,193,400 | 2,316,000 | 4,569,100 | 6,885,100 |
| 5 Total Revenues | \$ 408,324,100 | \$ 544,613,400 | \$ 952,937,500 | \$ 423,036,700 | \$ 564,509,700 | \$ 987,546,400 |
| Revenue Requirements | | | | | | |
| Operations & Maintenance Expense | | | | | | |
| 6 Regional System Wholesale Expenses | \$ 111,879,200 | \$ 175,858,900 | \$ 287,738,100 | \$ 116,354,400 | \$ 182,893,300 | \$ 299,247,700 |
| 7 Local System Expenses | 33,596,300 | 41,535,500 | 75,131,800 | 34,013,600 | 42,854,500 | 76,868,100 |
| 8 GRS Pension allocable to Regional System | 6,037,100 | 10,838,400 | 16,875,500 | 6,037,100 | 10,838,400 | 16,875,500 |
| 9 GRS Pension allocable to Local System | 4,262,900 | 2,861,600 | 7,124,500 | 4,262,900 | 2,861,600 | 7,124,500 |
| Total Operations & Maintenance Expense | 155,775,500 | 231,094,400 | 386,869,900 | 160,668,000 | 239,447,800 | 400,115,800 |
| Net Revenues after Operations & Maintenance Expense | \$ 252,548,600 | \$ 313,519,000 | \$ 566,067,600 | \$ 262,368,700 | \$ 325,061,900 | \$ 587,430,600 |
| Debt Service by Lien | | | | | | |
| 11 Senior Lien Bonds | \$ 145,902,300 | \$ 147,918,800 | \$ 293,821,100 | \$ 143,983,100 | \$ 147,878,600 | \$ 291,861,700 |
| 12 Second Lien Bonds | 42,042,100 | 49,117,000 | 91,159,100 | 42,596,100 | 49,083,000 | 91,679,100 |
| 13 SRF Junior Lien Bonds | 2,552,900 | 47,950,100 | 50,503,000 | 2,549,800 | 47,978,500 | 50,528,300 |
| 14 Total Debt Service | \$ 190,497,300 | \$ 244,985,900 | \$ 435,483,200 | \$ 189,129,000 | \$ 244,940,100 | \$ 434,069,100 |
| Debt Service Coverage (a) and [GLWA policy (b) for minimum ratio in brackets] | | | | | | |
| 15 Senior Lien Bonds <i>Line (10) / (11)</i> | [1.20] | 1.73 | 2.12 | 1.93 | 1.82 | 2.20 |
| 16 Senior and Second Lien Bonds <i>Line (10) / [(11) + (12)]</i> | [1.10] | 1.34 | 1.59 | 1.47 | 1.41 | 1.65 |
| 17 All Bonds, including SRF Junior Lien Bonds <i>Line (10) / (14)</i> | [1.00] | 1.33 | 1.28 | 1.30 | 1.39 | 1.35 |

(a) Debt Service Coverage is not applicable to the "Combined" GLWA Water and Sewer presentation.

(b) GLWA Debt Management Policy online at

http://www.glwwater.org/wp-content/uploads/2016/01/012716-FINAL_Debt_Management_Policy_GLWA_December-4pw.pdf

**Great Lakes Water Authority
Schedule 5 – Improvement & Extension Fund and Construction Bond Fund
FY 2017 and FY 2018**

| Activity | Improvement & Extension Fund | | | Construction Bond Fund (a) | | |
|---|------------------------------|----------------------|-------------------------------------|----------------------------|----------------------|-------------------------------------|
| | Water Fund | Sewer Fund | Combined (Informational Only) | Water Fund | Sewer Fund | Combined (Informational Only) |
| Beginning Balance, July 1, 2016 (b) | \$ 60,000,000 | \$ 100,000,000 | \$ 160,000,000 | \$ 40,000,000 | \$ 100,000,000 | \$ 140,000,000 |
| Uses of Funds FY 2017 | | | | | | |
| Capital Improvement Plan (f) | 34,432,000 | 28,289,000 | 62,721,000 | 95,150,000 | 100,684,000 | 195,834,000 |
| Increases in Funds FY 2017 | | | | | | |
| Forecasted Net Revenues Allocable to Regional System I&E Account (c) | 23,838,500 | 21,698,100 | 45,536,600 | n/a | n/a | n/a |
| Investment Earnings | (d) | (d) | (d) | 300,000 | 750,000 | 1,050,000 |
| Bond Proceeds (e) | n/a | n/a | n/a | 203,587,500 | 41,148,000 | 244,735,500 |
| Ending Balance, June 30, 2017 | 49,406,500 | 93,409,100 | 142,815,600 | 148,737,500 | 41,214,000 | 189,951,500 |
| Uses of Funds FY 2018 | | | | | | |
| Capital Improvement Plan (f) | 34,963,000 | 75,701,000 | 110,664,000 | 133,267,000 | 72,193,000 | 205,460,000 |
| Increases in Funds FY 2018 | | | | | | |
| Forecasted Net Revenues Allocable to Regional System I&E Account (a) | 33,914,300 | 33,485,900 | 67,400,200 | n/a | n/a | n/a |
| Investment Earnings | (d) | (d) | (d) | 1,115,500 | 309,100 | 1,424,600 |
| Bond Proceeds | n/a | n/a | n/a | 60,965,000 | 43,300,000 | 104,265,000 |
| Ending Balance, June 30, 2018 | <u>\$ 48,357,800</u> | <u>\$ 51,194,000</u> | <u>\$ 99,551,800</u> | <u>\$ 77,551,000</u> | <u>\$ 12,630,100</u> | <u>\$ 90,181,100</u> |

(a) Includes State Revolving Fund (SRF) amounts

(b) Estimated based on FY 2016 activity

(c) Source: "Schedule 1"

(d) Investment earnings on the Improvement and Extension Funds are transferred to the Receiving Fund and treated as non-operating revenue.

(e) Bond proceeds reflect net proceeds after financing issuance expenses. Also - SRF figures in this table reflect the reimbursement based on the estimated expenditure schedule of SRF financed projects in the GLWA CIP.

(f) See recap of CIP expenditures on next page.

Recap of Capital Improvement Program (CIP) Expenditures

The budgeted expenditure amounts for the Improvement & Extension Fund and the Construction Fund agree with the capital improvement program for FY 2017 and FY 2018 as demonstrated below.

As shown in the table below, I&E Funds (an accumulation of revenues collected in excess of expenses) in a combined total of \$69,395,000 will be used for water capital improvements over the next two years and \$103,990,000 for sewer system capital improvements during that same time period.

Similarly, net proceeds from bonds will be used to fund a combined total of \$228,417,000 of water capital improvements over the next two years and \$171,877,000 of sewer system capital improvements during that same time period.

| <u>Water CIP Summary*</u> | <u>FY 2017</u> | <u>FY 2018</u> | <u>Total</u> |
|---|-----------------------|-----------------------|-----------------------|
| Funded from I&E Fund | \$ 34,432,000 | \$ 34,963,000 | \$ 69,395,000 |
| Funded from Construction Bond Fund | 95,150,000 | 133,267,000 | 228,417,000 |
| Total (Page 4 of FY 2017-21 CIP) | \$ 129,582,000 | \$ 168,230,000 | \$ 297,812,000 |

| <u>Sewer CIP Summary*</u> | <u>FY 2017</u> | <u>FY 2018</u> | <u>Total</u> |
|---|-----------------------|-----------------------|-----------------------|
| Funded from I&E Fund | \$ 28,289,000 | \$ 75,701,000 | \$ 103,990,000 |
| Funded from Construction Bond Fund | 100,684,000 | 72,193,000 | 172,877,000 |
| Total (Page 4 of FY 2017-21 CIP) | \$ 128,973,000 | \$ 147,894,000 | \$ 276,867,000 |

* Detailed project expenditures for these totals shown in the respective GLWA Water or Sewer CIP document available online at <http://www.glwater.org/about-us/capital-improvement-planning-committee/>

Operating Area Financial Plan

How We Work: The GLWA is organized into six distinct operating areas as identified in the bubble chart to the right. Within each area, there are functional groups. Together, these groups work in a cross-functional manner to achieve the organization’s mission.

Our Promise: Through regional collaboration, GLWA strives to be a provider of choice dedicated to efficiently delivering the nation’s best water and sewer services in partnership with our customers.

How we deliver on that Promise:

Demonstrating a commitment to:

- Regional collaboration,
- High quality through innovation, and
- Trustworthiness & Integrity.

In the following pages, each operating area sets forth their initiatives and the operating and financial plan that supports those goals.



Water Operating Services

The Water Operating Services Area includes the following three groups.

- ✓ Water Operations – the direct cost of water treatment and distribution
- ✓ Systems Control – a centralized services that supports both water and wastewater operations
- ✓ Fleet, Facilities, and Field Services – a centralized service that supports both water and wastewater operations

The Water Operations Group produces and delivers water of unquestionable quality to nearly 40% of the State of Michigan's population while meeting or exceeding all state, federal, local, and department standards for quality and safety.

This is accomplished by employing qualified staff certified by the Michigan Department of Environmental Quality (MDEQ), maintaining the Safe Drinking Water Act (PA399) mandated requirements and ensuring that all contractual obligations are maintained for pressure and flow requirements for all communities served.

The contractual requirements (pressure and flow) for the communities served is accomplished by having a robust system of five (5) water treatment facilities, nineteen (19) water booster and sewer lift stations, and thirty-one (31) reservoirs.

Our treatment and distribution system is controlled by an award winning state of the arts Supervisory Control and Data Acquisition (SCADA) system. The Water Operations Group is further supported by its' Engineering and Water Quality Team.

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified four entity-wide initiatives.

1. Maintain 100% water quality compliance (Trustworthiness & Integrity)
2. Complete the design for water production metering for the Northeast, Southwest and Springwells plants (High Quality through Innovation)
3. Automation of High-lift controls at the southwest plant for control by System Control (High Quality through Innovation)
4. Complete the design of the new Springwells Reservoir fill line (High Quality through Innovation)

Water Operations

FY 2017 & 2018 Budget Summary

The largest category of expense in water operations budget is utilities at 50% for FY 2017 and 48% for FY 2018. The second largest category of expense is personnel services at 22% for FY 2017 and 23% for FY 2018. Chemicals for water treatment and contractual services for repairs and maintenance are the third and fourth largest categories of expense, respectively.

| | FY 2017 | FY 2017 % of Total | FY 2018 | FY 2018 % of Total |
|-------------------------------------|----------------------|-----------------------|----------------------|-----------------------|
| Water System Operations | \$ 64,904,252 | 100% | \$ 66,062,055 | 100% |
| 1.1 Salaries & Wages | 9,896,790 | 15% | 10,243,175 | 16% |
| 1.2 Overtime | 1,620,000 | 2% | 1,620,000 | 2% |
| 1.3 Employee Benefits | 3,673,446 | 6% | 3,802,016 | 6% |
| 1.4 Personnel Transition Adjustment | (2,402,000) | -4% | (2,402,000) | -4% |
| 2 Transition Services | 1,639,838 | 3% | 1,697,232 | 3% |
| <i>Subtotal Personnel Services</i> | <i>14,428,074</i> | <i>22%</i> | <i>14,960,423</i> | <i>23%</i> |
| 3.1 Electric | 30,732,836 | 47% | 29,815,651 | 45% |
| 3.2 Gas | 1,122,660 | 2% | 1,122,660 | 2% |
| 3.3 Other Utilities | 777,796 | 1% | 777,796 | 1% |
| <i>Subtotal Utilities</i> | <i>32,633,292</i> | <i>50%</i> | <i>31,716,107</i> | <i>48%</i> |
| 4 Chemicals | 6,192,455 | 10% | 6,192,455 | 9% |
| 5 Supplies & Other | 4,937,806 | 8% | 5,033,989 | 8% |
| 6 Contractual Services | 7,440,325 | 11% | 7,498,081 | 11% |
| 7 Capital Program Allocation | (2,895,500) | -4% | (2,997,000) | -5% |
| 8 Shared Services | (332,200) | -1% | (342,000) | -1% |
| 9 Unallocated Reserve | 2,500,000 | 4% | 4,000,000 | 6% |

Water system operations personnel is largely comprised of water treatment plant staffing at 144 FTE or 77%. Water engineering is the second largest category at 23 FTE or 12% and water quality of 15 FTE or 8%.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|--|--------------------------------------|-----------------------------------|
| Water System Operations | 187 | 187 |
| Chief Operating Officer Water Operations | 2 | 2 |
| Water Director | 3 | 3 |
| Water Quality | 15 | 15 |
| Water Engineering | 23 | 23 |
| Water Treatment Plants | | |
| Lake Huron | 29 | 29 |
| Northeast | 26 | 26 |
| Southwest | 27 | 27 |
| Springwells | 32 | 32 |
| Water Works Park | 30 | 30 |
| <i>Subtotal Water Treatment Plant Staffing</i> | <i>144</i> | <i>144</i> |

Systems Control

FY 2017 & 2018 Budget Summary

The systems control budget is primarily contractual services (74% for FY 2017 and 75% for FY 2018) which support the high level of technology and complex nature of the water and wastewater operations. Contracted services include the following.

- ✓ Support and maintenance of the Supervisory Control and Data Acquisition (SCADA) System to effectively manage water treatment, water distribution, wastewater collection and wastewater treatment (\$3,500,000 for FY 2017 and \$4,000,000 for FY 2018).
- ✓ Specialized process and facilities equipment, installation and maintenance services to ensure effective operation of pumps, motors, valves and associated systems (\$3,200,000 for FY 2017 and \$4,800,000 for FY 2018).
- ✓ Repair and maintenance of high voltage electrical transformers, switch gears and breakers at various facilities to verify the functionality and extend the useful life of the equipment (\$2,080,000 for FY 2017 and \$2,080,000 for FY 2018).
- ✓ Periodic inspection of the water station reservoirs to assess structural integrity and to ensure compliance with water quality standards including those mandated by the Department of Environmental Quality (\$1,158,000 for FY 2017 and \$44,000 for FY 2018).
- ✓ Seasonal support of skilled operators at the Imlay Pumping Station and Systems Control Center (\$1,281,000 for FY 2017 and \$1,281,000 for FY 2018).

The second largest category is personnel costs (44% for FY 2017 and 43% for FY 2018).

The data tables are shown on the next page.

| | FY 2017 | FY 2017 % of Total | FY 2018 | FY 2018 % of Total |
|------------------------------------|----------------------|-------------------------------|----------------------|-------------------------------|
| Systems Control | \$ 19,243,777 | 100% | \$ 20,257,152 | 100% |
| 1.1 Salaries & Wages | 2,744,398 | 14% | 2,840,452 | 14% |
| 1.2 Overtime | 700,000 | 4% | 700,000 | 3% |
| 1.3 Employee Benefits | 1,000,294 | 5% | 1,035,304 | 5% |
| 2 Transition Services | 4,007,368 | 21% | 4,147,626 | 20% |
| <i>Subtotal Personnel Services</i> | <i>8,452,060</i> | <i>44%</i> | <i>8,723,382</i> | <i>43%</i> |
| 3.1 Electric | 11,574 | 0% | 11,227 | 0% |
| 3.2 Gas | 71,500 | 0% | 71,500 | 0% |
| 3.3 Other Utilities | 7,947 | 0% | 7,947 | 0% |
| 5 Supplies & Other | 751,774 | 4% | 751,774 | 4% |
| 6 Contractual Services | 14,182,522 | 74% | 15,168,522 | 75% |
| 7 Capital Program Allocation | (2,894,500) | -15% | (2,995,800) | -15% |
| 8 Shared Services | (1,339,100) | -7% | (1,481,400) | -7% |

The staffing plan is comprised of technicians that operate and maintain electrical and instrumentation equipment in the water and wastewater treatment plants, field services, pumping stations, electrical systems, computerized process controls, and equipment.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|------------------------|--------------------------------------|-----------------------------------|
| Systems Control | 79 | 79 |

Fleet, Facilities, and Field Services

FY 2017 & 2018 Budget Summary

The fleet, facilities, and field services budget is primarily contractual services (64% for FY 2017 and 65% for FY 2018). The level of contractual services reflects the decision to contract for certain non-core services as well as the efficient management of peak workload activities.

- ✓ **Fleet** includes the shared service agreement with DWSD to manage and maintain all fleet vehicles (\$2,151,000).
- ✓ **Facilities** contracts include elevator maintenance (\$1,200,000), janitorial services (\$1,082,000), landscaping and exterior maintenance (\$2,640,000), and shared services with the DWSD for tenancy in the Water Board Building and Central Services Facility (\$1,106,000).
- ✓ **Field services** includes sewer cleaning and investigation to assess the condition and reduce the risk for sewer failures (\$2,000,000), gate valve inspection and exercising to ensure readiness for emergency use and extend the useful life of the valve (\$1,800,000), pavement repairs (\$2,200,000), water main leak and repair contract (\$1,920,000), and sewer main repair (\$1,450,000).

| | FY 2017 | | FY 2018 | |
|--|----------------------|-------------|----------------------|-------------|
| | FY 2017 | % of Total | FY 2018 | % of Total |
| Fleet, Facilities, & Field Services | \$ 34,694,148 | 100% | \$ 36,211,836 | 100% |
| 1.1 Salaries & Wages | 3,218,544 | 9% | 3,331,192 | 9% |
| 1.2 Overtime | 1,650,000 | 5% | 1,650,000 | 5% |
| 1.3 Employee Benefits | 1,213,683 | 3% | 1,256,163 | 3% |
| <i>Subtotal Personnel Services</i> | <i>6,082,227</i> | <i>18%</i> | <i>6,237,355</i> | <i>17%</i> |
| 3.1 Electric | 1,225,219 | 4% | 1,188,463 | 3% |
| 3.2 Gas | 465,722 | 1% | 465,722 | 1% |
| 3.3 Other Utilities | 293,855 | 1% | 293,855 | 1% |
| 5 Supplies & Other | 6,105,004 | 18% | 5,902,720 | 16% |
| 6 Contractual Services | 22,052,821 | 64% | 23,707,921 | 65% |
| 7 Capital Program Allocation | (1,530,700) | -4% | (1,584,200) | -4% |

Personnel costs account for 18% for FY 2017 and 17% for FY 2018 of the total budget for this group. The staffing level is in the table below.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|--|--------------------------------------|-----------------------------------|
| Fleet, Facilities, & Field Services | 60 | 60 |
| Facility Operations | 22 | 22 |
| Field Engineering | 13 | 13 |
| Field Service Operations | 25 | 25 |

Wastewater Operating Services

The Wastewater Operating Services Area includes the direct cost of wastewater treatment.

Wastewater treatment collects and treats regional sanitary and combined sewage to protect receiving waters and public health. Discharges are treated to comply with National Pollutant Discharge Elimination System (NPDES) Permit limits established by federal, state laws and regulations. The department reclaims a portion of its Biosolids for beneficial reuse.

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified six entity-wide initiatives.

1. Maintain compliance with the National Pollutant Discharge Elimination System Permit (and other regulatory requirements)
2. Complete NPDES Permit Renewal Strategy (High Quality through Innovation)
3. Complete application and submit not later than April 1, 2017 (Trustworthiness & Integrity)
4. Develop GLWA industrial pretreatment program (High Quality through Innovation)
5. Negotiate NPDES Permit Renewal (High Quality through Innovation)
6. Submit industrial pretreatment program to MDEQ for approval not later than October 1, 2017 (Trustworthiness & Integrity)

FY 2017 & 2018 Budget Summary

The largest category of expense in the wastewater operations budget is personnel services at 28% for both FY 2017 and FY 2018. The second largest category of expense is utilities at 26% for both years. The third largest category is contractual services at 24%. Over half of that budget line includes \$16,500,000 for contract # PC-792 with New England Fertilizer Company (NEFCO) for operating and maintaining the Biosolids Dryer Facility which came online in March 2016. The proposed first, full year budget is based on a minimum charge of \$13 million for the first 73,000 tons plus an estimate of additional tons to be processed. The fourth largest category is chemicals at 12% for wastewater treatment operations.

| | FY 2017 | FY 2017 | FY 2018 | FY 2018 |
|-------------------------------------|-----------------------|-------------------|-----------------------|-------------------|
| | | % of Total | | % of Total |
| Wastewater System Operations | \$ 121,912,047 | 100% | \$ 121,349,057 | 100% |
| 1.1 Salaries & Wages | 21,056,112 | 17% | 20,898,222 | 17% |
| 1.2 Overtime | 4,200,000 | 3% | 4,326,000 | 4% |
| 1.3 Employee Benefits | 8,581,145 | 7% | 8,484,807 | 7% |
| 1.4 Personnel Transition Adjustment | (2,500,000) | -2% | (2,500,000) | -2% |
| 2 Transition Services | 2,440,184 | 2% | 2,440,184 | 2% |
| <i>Subtotal Personnel Services</i> | <i>33,777,441</i> | <i>28%</i> | <i>33,649,213</i> | <i>28%</i> |
| 3.1 Electric | 19,000,300 | 16% | 19,015,300 | 16% |
| 3.2 Gas | 7,655,000 | 6% | 7,656,440 | 6% |
| 3.3 Other Utilities | 5,004,800 | 4% | 5,004,800 | 4% |
| <i>Subtotal Utilities</i> | <i>31,660,100</i> | <i>26%</i> | <i>31,676,540</i> | <i>26%</i> |
| 4 Chemicals | 14,345,666 | 12% | 14,384,502 | 12% |
| 5 Supplies & Other | 9,694,791 | 8% | 8,760,953 | 7% |
| 6 Contractual Services | 28,778,470 | 24% | 29,315,370 | 24% |
| 7 Capital Program Allocation | (3,061,321) | -3% | (3,061,321) | -3% |
| 9 Unallocated Reserve | 6,716,900 | 6% | 6,623,800 | 5% |

Wastewater system operations personnel expense is largely comprised of wastewater treatment plant staffing at 333 FTE or 72%. Industrial waste control is second at 67 FTE or 15% for FY 2017 with a similar percentage for FY 2018. The decrease in staffing plan levels from FY 2017 to 2018 is attributable to ongoing optimization efforts partially due to the new biosolids dryer facility.

| | FY 2017 FTE | 2018 FTE |
|-------------------------------------|----------------------|----------------------|
| | Staffing Plan | Staffing Plan |
| Wastewater System Operations | 461 | 442 |
| Wastewater Director | 4 | 4 |
| Wastewater Engineering | 34 | 34 |
| Wastewater Operations | 333 | 315 |
| Industrial Waste Control | 67 | 66 |
| Combined Sewer Overflow Facilities | 23 | 23 |

Planning Services

The Planning Services Area includes centralized services that encompasses the following groups.

- ✓ **Asset Management & Capital Improvement Planning**
- ✓ **System Planning**
- ✓ **System Analytics**

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified seven entity-wide initiatives.

1. Water Units of Service, Metering Plan and Water Audits (Regional Collaboration)
2. Update to the Wastewater Shares (Regional Collaboration) Complete application and submit not later than April 1, 2017 (Trustworthiness & Integrity)
3. Regional Wastewater Master Plan (Regional Collaboration)
4. New Asset Management and Capital Improvement Plan (CIP) Work Group (Regional Collaboration)
5. Advance the Energy Management Program (Innovation)
6. Advance the Asset Management Program (Innovation)
7. Improve CIP Program Process and Project Delivery (Trustworthiness & Integrity)

FY 2017 & 2018 Budget Summary

The scope of the planning services group budget aligns with the strategic decision by GLWA to create and staff a Planning Services group. The first Chief Planning Officer was hired during the stand-up of the regional authority in 2015. The mission in the first years of this new operating area is to assess current procedures, staffing, and systems to advance a robust planning function for the new,

regional authority. This will be achieved with a series of projects. For this reason, contractual services is the largest category of expenses at \$15,310,000 for FY 2017 and \$13,950,000 for FY 2018 which includes the following.

System Asset Management & Capital Improvement Program Group Projects

- ✓ **Water system CIP:** A three to four year project currently under procurement to study the current operations and implement new software, processes & procedures based on findings (\$4,000,000 for FY 2017 and \$3,200,000 for FY 2018).
- ✓ **Sewer system CIP:** A three to four year project currently under procurement to study the current operations and implement new software, processes & procedures based on findings (\$3,400,000 for FY 2017 and \$2,700,000 for FY 2018).
- ✓ **Wastewater Master Plan (WWMP):** A three year project to update the WWMP which is a projection of the sewer system’s needs and long term CSO Control Program for the next 40-50 years (\$2,500,000 for FY 2017 and \$2,500,000 for FY 2018).

Systems Analytics Group Projects

- ✓ Sewage flow analysis and quality control to support sewer meter flow trend analysis and customer outreach support for the Wastewater Analytical Task Force (\$1,300,000 for FY 2017 and \$1,300,000 for FY 2018).

Given that the nature of these expenses supports the capital program, a significant portion of these expense are allocable to capital program management allocation overhead as shown below.

| | FY 2017 | | FY 2018 | |
|-------------------------------------|---------------------|-------------|---------------------|-------------|
| | FY 2017 | % of Total | FY 2018 | % of Total |
| Planning Services | \$ 8,376,750 | 100% | \$ 9,905,369 | 100% |
| 1.1 Salaries & Wages | 2,886,220 | 34% | 3,738,124 | 38% |
| 1.2 Overtime | 80,000 | 1% | 80,000 | 1% |
| 1.3 Employee Benefits | 952,130 | 11% | 1,231,988 | 12% |
| 1.4 Personnel Transition Adjustment | (587,000) | -7% | (587,000) | -6% |
| <i>Subtotal Personnel Services</i> | <i>3,331,350</i> | <i>40%</i> | <i>4,463,112</i> | <i>45%</i> |
| 2 Transition Services | 384,050 | 5% | 643,200 | 6% |
| 3.1 Electric | 195,000 | 2% | 202,800 | 2% |
| 5 Supplies & Other | 415,050 | 5% | 470,657 | 5% |
| 6 Contractual Services | 15,310,000 | 183% | 13,950,000 | 141% |
| 7 Capital Program Allocation | (11,258,700) | -134% | (9,824,400) | -99% |

The staffing plan provides for expansion of the system analytics, asset management, and capital planning group capacity over the course of the next two years.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|---------------------------------------|--------------------------------------|-----------------------------------|
| Planning Services | 45 | 58 |
| Chief Planning Officer | 2 | 2 |
| System Analytics | 29 | 33 |
| Energy Management | 2 | 2 |
| System Planning | 2 | 4 |
| Asset Management and Capital Planning | 10 | 18 |

Chief Executive Officer

The Chief Executive Officer Area includes encompasses the following areas.

- ✓ Board of Directors
- ✓ Legislative and Regulatory Compliance
- ✓ Community and Customer Relations
- ✓ Security and Integrity

The Chief Executive Officer Area ensures that the GLWA's Service Areas function in a communicative and collaborative fashion to implement the Board's policies, GLWA facilities and personnel are protected to the maximum extent possible, organizational efficiencies are pursued and optimized, customer needs are met in an open and transparent manner, that the integrity of the utility is maintained, that the organization maintains the highest standards of integrity and compliance, and that the customers of the GLWA receive efficiently delivered, quality compliant water services.

The Customer and Community Relations Group provides information, communication, education and outreach services within and between the GLWA and its customer communities so that they may experience organizational transparency and collaborate to optimize the delivery of quality compliant water services to the residents of southeastern Michigan.

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified seven entity-wide initiatives.

1. Maintain 100% Compliance (Trustworthiness & Integrity)
2. Become a Utility of Choice for Southeastern Michigan (Trustworthiness & Integrity)
3. Further Development of the Asset Management Program (High Quality through Innovation)
4. Expand Community Outreach Effort and Engage in Local Community Activities (Regional Collaboration)
5. GLWA/DWSD Standup (Regional Collaboration)
6. Align Performance with Recognized Utility Standards (Trustworthiness & Integrity)
7. Continued Cost Containment Efforts (Trustworthiness & Integrity)

FY 2017 & 2018 Budget Summary

The Chief Executive Officer’s budget encompasses staff and services that supports the executive office, the GLWA board activities and expenses, and public affairs. The largest category of expense is salaries based upon the nature of this service area. The second largest category is contractual services which provides for public relations and board member activities. Supplies and other provides for training and organizational memberships.

| | FY 2017 | FY 2017 % of Total | FY 2018 | FY 2018 % of Total |
|------------------------------------|---------------------|-------------------------------|---------------------|-------------------------------|
| Chief Executive Officer | \$ 1,683,890 | 100% | \$ 1,849,158 | 100% |
| 1.1 Salaries & Wages | 619,480 | 37% | 768,074 | 42% |
| 1.2 Overtime | 4,400 | 0% | 4,400 | 0% |
| 1.3 Employee Benefits | 187,210 | 11% | 243,883 | 13% |
| <i>Subtotal Personnel Services</i> | <i>811,090</i> | <i>48%</i> | <i>1,016,357</i> | <i>55%</i> |
| 5 Supplies & Other | 411,800 | 24% | 411,800 | 22% |
| 6 Contractual Services | 461,000 | 27% | 421,001 | 23% |

The staffing plan provides for the CEO and administrative support. The public affairs staff is under the direction of a Public Affairs Officer (PAO) which is presently an open position.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|--------------------------------|--------------------------------------|-----------------------------------|
| Chief Executive Officer | 7 | 10 |
| Chief Executive Officer | 2 | 2 |
| Public Affairs | 5 | 8 |

Security & Integrity

The Security and Integrity Group provides security protection, investigative and coordinated law enforcement services to the GLWA, its employees, and customers so that they may experience confidence in their safety and the integrity of the people and processes utilized by the GLWA.

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified eight entity-wide initiatives.

1. The Security group will continue enhanced training for its officers, by designated offerings in this calendar year (High Quality through Innovation)
2. Update and expand the Homeland Security Response Plan by June 30, 2016. (Regional Collaboration)
3. Develop strategy and execute a tabletop exercise relating to the Homeland Security Response Plan within the calendar year and thereafter (Regional Collaboration)
4. Enhancing the security IT network systems (High Quality through Innovation)
5. Update and expand the Homeland Security Response Plan by June 30, 2016 (High Quality through Innovation)
6. Develop strategy and execute a tabletop exercise relating to the Homeland Security Response Plan within the calendar year and thereafter (Regional Collaboration)
7. Recommended CIP innovations for consideration (High Quality through Innovation)

FY 2017 & 2018 Budget Summary

The largest category of expense is personnel. Net of the shared service agreement, personnel costs are 150% for FY 2017 and 155% for FY 2018. This occurs because the GLWA has hired and supervises 30 security officers in alignment with the shared services agreement.

| | FY 2017 | FY 2017 % of Total | FY 2018 | FY 2018 % of Total |
|------------------------------------|---------------------|-------------------------------|---------------------|-------------------------------|
| Security | \$ 3,423,090 | 100% | \$ 3,314,735 | 100% |
| 1.1 Salaries & Wages | 3,433,440 | 100% | 3,437,665 | 104% |
| 1.2 Overtime | 197,000 | 6% | 197,000 | 6% |
| 1.3 Employee Benefits | 1,503,590 | 44% | 1,505,610 | 45% |
| <i>Subtotal Personnel Services</i> | <i>8,557,120</i> | <i>150%</i> | <i>8,455,010</i> | <i>155%</i> |
| 5 Supplies & Other | 223,060 | 7% | 175,560 | 5% |
| 6 Contractual Services | 300,000 | 9% | 300,000 | 9% |
| 7 Capital Program Allocation | (204,800) | -6% | (211,000) | -6% |
| 8 Shared Services | (2,029,200) | -59% | (2,090,100) | -63% |

The staffing plan is designed to provide staff at 24/7 facilities as well as provide specialized investigate work.

| | FY 2017 FTE | 2018 FTE |
|-----------------|--------------------|-----------------|
| Security | 78 | 78 |

Administrative & Compliance Services

The Chief Executive Officer Area includes encompasses the following areas.

- ✓ **Enterprise Risk Management**
- ✓ **Organizational Development**
- ✓ **General Counsel**
- ✓ **Information Technology**

The Administrative Services Area provides the GLWA and its customers with outstanding people, processes and technology so that it may efficiently provide water supply and wastewater disposal services in compliance with applicable laws, standards and regulations.

Enterprise Risk Management

The Risk Management and Safety Group coordinates and provides risk analysis, risk avoidance, loss mitigation, and quality assurance services to the GLWA so that its employees may experience a safe and healthy work environment and its customers may experience communities served with and surrounded by clean environmentally compliant water.

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified several entity-wide initiatives.

1. Initiate reasonable and appropriate loss control techniques (High Quality through Innovation)
2. Minimize harm to physical, human, fiscal and environmental resources (Trustworthy & Integrity); and
3. Minimize the total cost of risk to the organization (Trustworthiness & Integrity)

Organizational Development

The Organizational Development Group provides recruitment, retention, training, workplace policies, assistance, guidance, benefit coordination, and quality assurance services to the GLWA and its employees, so that can develop and optimize their talent and the deployment of their talent within the organization to support a motivated integrated workforce team that efficiently delivers quality, compliant water services to GLWA customers.

FY 2017 & 2018 Initiatives

1. Negotiate model contract with collective bargaining units as their current agreements expire (Trustworthiness & Integrity)
2. Resolve outstanding labor issues with all collective bargaining groups (Trustworthiness & Integrity)
3. Develop training and apprenticeship programs with input from union in accordance with 2015 mediation orders (Trustworthiness & Integrity)
4. Continue development and dissemination of Information Bites for Great Lakes staff which include optimization updates (Trustworthiness & Integrity)
5. Continue development and implementation of comprehensive training program for all levels of leadership as well as other staff to ensure Great Lakes employees are fully aware of and competent in performing their assigned responsibilities and involved in additional learning opportunities (Trustworthiness & Integrity)
6. Create a public industry presence through active participation in state, regional, national and international professional organizations (Regional Collaboration)

General Counsel

The General Counsel Group provides legal representation, strategic guidance, counseling, advice, and support to the Great Lakes Water Authority so that it may make sound decisions and use appropriate legal processes to better provide its customers with quality compliant water services.

FY 2017 & 2018 Initiatives

1. Provide transitional support to DWSD pursuant to the Shared Services Agreement (Regional Collaboration)
2. Develop GLWA templates (for professional, legal, Information Technology (IT), and personal services contracts and amendments) that modernize the contractual relationship with our vendors (High Quality through Innovation)
3. Support Risk Management Group Stand-up to improve internal customer service delivery and assist in expediting external customer service to our customers (Trustworthiness & Integrity)
4. Work collaboratively with GLWA customers to establish GLWA model wholesale customer contracts for water and sewer customers (Regional Collaboration)
5. Implement matter management solution to support GLWA legal activities (High Quality through Innovation)

6. Negotiate NPDES permit revisions that balance GLWA customers’ needs for affordable service and need to maintain environmental quality within the communities we serve (Trustworthiness & Integrity)
7. Work collaboratively with GLWA CEO, Board, and customers to address legislation, litigation and other areas of common interest (Regional Collaboration)
8. Utilize technology and other available resources to improve administration of Family and Medical Leave Act (FMLA) leave (High Quality through Innovation)
9. Support activities of GLWA Board of Directors by providing timely advice on legal issues, and matters of concern (Trustworthiness & Integrity)

FY 2017 & 2018 Budget Summary

The largest category of expense in the Administrative & Compliance services area is contractual services at 82% in FY 2017 and 84% in FY 2018. This includes the following.

- ✓ **Risk Management:** Cost of property insurance and brokerage services (\$1,640,000 in FY 2017 and \$1,700,000 in FY 2018).
- ✓ **General Counsel:** Outside counsel for a wide range of matters including environmental, labor, contract review, land matters, bond counsel (non-transactional), and other matters (\$3,400,000 in FY 2017 and \$3,600,000 in FY 2018).
- ✓ **General Counsel Shared Services:** Contingent contract to assist DWSD with bankruptcy collections (budgeted at \$1,000,000 per year).

| | FY 2017 | | FY 2018 | |
|---|----------------------|-------------|----------------------|-------------|
| | FY 2017 | % of Total | FY 2018 | % of Total |
| Administrative & Compliance Services | \$ 10,921,296 | 100% | \$ 10,690,781 | 100% |
| 1.1 Salaries & Wages | 2,724,040 | 25% | 2,725,540 | 25% |
| 1.2 Overtime | 21,000 | 0% | 21,000 | 0% |
| 1.3 Employee Benefits | 879,510 | 8% | 879,937 | 8% |
| 1.4 Personnel Transition Adjustment | (133,000) | -1% | (133,000) | -1% |
| <i>Subtotal Personnel Services</i> | <i>3,491,550</i> | <i>32%</i> | <i>3,493,477</i> | <i>33%</i> |
| 5 Supplies & Other | 185,506 | 2% | 153,136 | 1% |
| 6 Contractual Services | 8,939,840 | 82% | 9,003,268 | 84% |
| 8 Shared Services | (1,695,600) | -16% | (1,959,100) | -18% |

The staffing plan covers four distinct groups as shown in the table below.

| | FY 2017 FTE | 2018 FTE |
|---|----------------------|----------------------|
| | Staffing Plan | Staffing Plan |
| Administrative & Compliance Services | 36 | 36 |
| Chief Administrative Officer | 2 | 2 |
| Risk Management and Safety | 8 | 8 |
| Organizational Development | 21 | 21 |
| General Counsel | 5 | 5 |

Information Technology

The Information Technology Group utilizes hardware, software, and network services to provide business and system planning, business process development, organizational change management and information flow optimization services to the GLWA and its customers so that they may utilize technology to experience a transparent organization and efficiencies in the use of resources within the organization.

FY 2017 & 2018 Initiatives

Through the leadership of the Chief Executive Officer, the GLWA has identified four entity-wide initiatives.

1. Transform GLWA Web properties (High Quality through Innovation)
2. Automate and expand information security and general controls environment (Regional Collaboration, Trustworthiness & Integrity)
3. Continue implementation, enhancement and stabilization of core enterprise systems (High Quality through Innovation)
4. Develop an IT implementation plan to coordinate with ongoing City of Detroit technology initiatives and address continued GLWA requirements. (Regional Collaboration, High Quality through Innovation)

FY 2017 & 2018 Budget Summary

The Information Technology Group budget manages all IT related costs throughout the GLWA. This includes IT staffing, business unit support, software licensing services, fees for cloud based solutions, hardware maintenance, and project management for the deployment of upgraded and new technology. The largest expense category is contractual services at 101% for FY 2017 and 102% for FY 2018 based on the *net* budget expense. This largely due to an annual contract with AT&T who owns, operates, updates, and maintain the wide area network and local area network. Of the annual contract commitment of \$6,000,000, \$1.8 million, or 30% is reimbursed by DWSD.

| | FY 2017 | FY 2017 % of Total | FY 2018 | FY 2018 % of Total |
|-------------------------------------|---------------------|-------------------------------|---------------------|-------------------------------|
| Information Technology | \$ 7,288,979 | 100% | \$ 8,156,380 | 100% |
| 1.1 Salaries & Wages | 3,178,500 | 44% | 3,180,870 | 39% |
| 1.3 Employee Benefits | 1,036,700 | 14% | 1,037,601 | 13% |
| 1.4 Personnel Transition Adjustment | (240,000) | -3% | (240,000) | -3% |
| 2 Transition Services | 2,192,800 | 30% | 2,192,800 | 27% |
| <i>Subtotal Personnel Services</i> | <i>6,168,000</i> | <i>85%</i> | <i>6,171,271</i> | <i>76%</i> |
| 5 Supplies & Other | 2,845,954 | 39% | 2,826,954 | 35% |
| 6 Contractual Services | 7,383,733 | 101% | 8,305,903 | 102% |
| 7 Capital Program Allocation | (4,336,400) | -59% | (4,358,500) | -53% |
| 8 Shared Services | (4,772,308) | -65% | (4,789,248) | -59% |

The IT staffing plan is organized among five groups: administration, business applications, enterprise applications, infrastructure, and service desk.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|-------------------------------|--------------------------------------|-----------------------------------|
| Information Technology | 55 | 56 |

Financial Services

The Financial Services Group supports external and internal customers through a team of professionals dedicated to excellence, continuous improvement, and transparency.

- ✓ **Finance:** Accounting, financial reporting, capital management, and planning & analysis
- ✓ **Treasury:** Cash management, investing, and cash flow forecasting
- ✓ **Public Finance:** Debt management, rate-setting, and billing
- ✓ **Procurement:** Supply Chain Operations, Logistics and Materials and Construction and Contracted Services
- ✓ **Internal Audit & Lease Administration** Internal audit and administration of operational agreements with DWSD)
- ✓ **Transformation** Lean, process improvement coaching, performance management, restructuring support, and technology roll-out

FY 2017 & 2018 Initiatives

1. Strategic Debt Management (Trustworthiness & Integrity)
2. Recognizing that desired financial outcomes are the result of effective entity-wide operations, facilitate a new level of support to operational partners (Trustworthiness & Integrity and High Quality through Innovation)
3. Pilot Document Management Technology (Trustworthiness & Integrity)
4. Maximize New Financial Systems Launched in FY 2016 (Trustworthiness & Integrity and High Quality through Innovation)
5. Provide Ongoing Project Management Support for Stand-up of GLWA and DWSD (Regional Collaboration)
6. Improved Procurement Practices (Trustworthiness & Integrity)

FY 2017 & 2018 Budget Summary

The Financial Services Area is largely a service organization whose “customers” are both external and internal. Accordingly, the largest category of expenses is personnel at 42% in FY 2017 and 47% in FY 2018. The second largest category is contractual services which includes the annual audit, external strategic financial consulting and rate setting, non-transactional financial advisor fees, contracting compliance, debt disclosure services.

| | FY 2017 | | FY 2018 | |
|-------------------------------------|----------------------|------------|----------------------|------------|
| | FY 2017 | % of Total | FY 2018 | % of Total |
| Financial Services | \$ 12,692,430 | 33% | \$ 11,973,027 | 29% |
| 1.1 Salaries & Wages | 4,818,300 | 38% | 4,818,300 | 40% |
| 1.2 Overtime | 60,000 | 0% | 60,000 | 1% |
| 1.3 Employee Benefits | 1,467,280 | 12% | 1,461,588 | 12% |
| 1.4 Personnel Transition Adjustment | (340,000) | -3% | (240,000) | -2% |
| 2 Transition Services | 4,107,900 | 32% | 4,397,011 | 37% |
| <i>Subtotal Personnel Services</i> | <i>5,295,180</i> | <i>42%</i> | <i>5,678,599</i> | <i>47%</i> |
| 5 Supplies & Other | 846,950 | 7% | 746,450 | 6% |
| 6 Contractual Services | 1,985,500 | 16% | 989,878 | 8% |
| 7 Capital Program Allocation | (195,000) | -2% | (200,800) | -2% |
| 8 Shared Services | (58,500) | 0% | (59,400) | 0% |

Staffing in the Financial Services area is allocated among seven groups with each unique technical knowledge to advance and support transformation across the organization.

| | FY 2017 FTE Staffing Plan | 2018 FTE Staffing Plan |
|---------------------------------------|------------------------------|---------------------------|
| Financial Services | 98 | 95 |
| Chief Financial Officer | 3 | 3 |
| Finance | 28 | 28 |
| Procurement | 49 | 48 |
| Public Finance | 5 | 5 |
| Treasury | 3 | 3 |
| Transformation | 5 | 3 |
| Internal Audit & Lease Administration | 5 | 5 |

Debt Management

A clear long-term objective of the Great Lakes Water Authority is to reduce the level of annual debt service as a percent of the revenue requirement. For FY 2017, debt service equates to 46% of the water system revenue requirement and 44% of the sewer system revenue requirement. Similar percentages apply to FY 2018.

Foundational to the creation of the GLWA was a sound long-term financial plan. Key elements are continued optimization of the organization, continuing recently implemented water and sewer revenue policies that minimize risk, closing the door on unfunded legacy liabilities, implementing sound asset management and improved control of capital spending, and moving from maximum use of bonded debt. The ten year “Lease Feasibility Forecast” is available online at <http://www.glwater.org/board/organizational-documents/>.

GLWA has refunding opportunities in both FY 2017 and FY 2018 to further control the cost of debt service. Based on the five year capital plan needs, however, the GLWA has authorized the issuance of up to \$300 million of new water system bonds in FY 2017. Where possible, the GLWA is seeking to maximize the use of lower interest cost loan programs such as the Drinking Water Revolving Fund (DWRF), State Revolving Fund (SRF), and the Stormwater, Asset Management, and Wastewater (SAW) program.

Pursuant to the terms of the lease agreements dated June 12, 2015 and subsequent bondholder consent achieved in November 2015, the GLWA is the successor obligor for the former City of Detroit Water & Sewerage Department (DWSD) revenue bonds. Revenues from *both* the DWSD and GLWA systems, however, represent pledged assets for the payment of the bonds. Revenues collections from both systems are therefore received directly by the Trustee pursuant to the terms of the GLWA Master Bond Ordinance (MBO). The Trustee then distributes and maintains trust accounts for specified purposes including the payment of debt obligations. The MBO and lease agreements are available online at <http://www.glwater.org/board/organizational-documents/>.

The tables on the following pages provide an analysis of the annual debt service and total remaining principal for both the water and sewer systems. Also provided is a table of outstanding debt at year end.

**Great Lakes Water Authority
Annual Debt Service Payments - Water Fund
FY 2017 and FY 2018**

| | FY 2017 | | | FY 2018 | | |
|--|----------------------|---------------------|----------------------|----------------------|---------------------|----------------------|
| | Current | Proposed (1) | Total | Current | Proposed (1) | Total |
| Principal | | | | | | |
| Senior Lien | \$50,585,000 | \$ - | \$50,585,000 | \$51,465,000 | \$ - | \$51,465,000 |
| Second Lien | 9,495,000 | - | 9,495,000 | 10,530,000 | - | 10,530,000 |
| Junior Lien- DWRF | 1,426,250 | - | 1,426,250 | 1,453,700 | - | 1,453,700 |
| Total Principal | <u>\$61,506,250</u> | <u>\$ -</u> | <u>\$61,506,250</u> | <u>\$63,448,700</u> | <u>\$ -</u> | <u>\$63,448,700</u> |
| Interest | | | | | | |
| Senior Lien | \$82,736,000 | \$12,581,300 | \$95,317,300 | \$79,936,800 | \$12,581,300 | \$92,518,100 |
| Second Lien | 32,547,100 | - | 32,547,100 | 32,066,100 | - | 32,066,100 |
| Junior Lien- DWRF | 351,650 | 775,000 | 1,126,650 | 321,100 | 775,000 | 1,096,100 |
| Total Interest | <u>\$115,634,750</u> | <u>\$13,356,300</u> | <u>\$128,991,050</u> | <u>\$112,324,000</u> | <u>\$13,356,300</u> | <u>\$125,680,300</u> |
| Total Debt Service | | | | | | |
| Senior Lien | \$133,321,000 | \$12,581,300 | \$145,902,300 | \$131,401,800 | \$12,581,300 | \$143,983,100 |
| Second Lien | 42,042,100 | - | 42,042,100 | 42,596,100 | - | 42,596,100 |
| Junior Lien- DWRF | 1,777,900 | 775,000 | 2,552,900 | 1,774,800 | 775,000 | 2,549,800 |
| Total Debt Service | <u>\$177,141,000</u> | <u>\$13,356,300</u> | <u>\$190,497,300</u> | <u>\$175,772,700</u> | <u>\$13,356,300</u> | <u>\$189,129,000</u> |
| Allocation of Debt Service Per "Schedule 2" | | | | | | |
| Debt Service Allocable to Regional System | | | \$ 159,277,500 | | | \$ 157,909,200 |
| Debt Service Allocable to Local System | | | 31,219,800 | | | 31,219,800 |
| Total Debt Service | | | <u>\$190,497,300</u> | | | <u>\$189,129,000</u> |

(1) Includes debt service payments from Issuance of \$228,750,000 in New Money Water Bonds & \$31,000,000 DWRF Bonds in FY 2017.

DWRF: Drinking Water Revolving Fund Loan Program

**Great Lakes Water Authority
Annual Debt Service Payments - Sewer Fund
FY 2017 and FY 2018**

| | Sewer Fund | | | | | |
|--|----------------------|--------------------|----------------------|----------------------|--------------------|----------------------|
| | FY 2017 | | | FY 2018 | | |
| | Current | Proposed (2) | Total | Current | Proposed (2) | Total |
| Principal | | | | | | |
| Senior Lien Fixed | \$42,099,900 | \$ - | \$42,099,900 | \$47,360,000 | \$ - | \$47,360,000 |
| Senior Lien Capital Appreciation | 1,957,400 | - | 1,957,400 | 811,200 | - | 811,200 |
| Senior Lien Variable Rate | 0 | - | 0 | 0 | - | 0 |
| Senior Lien-SRF | 8,251,300 | - | 8,251,300 | 8,457,500 | - | 8,457,500 |
| Second Lien | 6,480,000 | - | 6,480,000 | 6,760,000 | - | 6,760,000 |
| Junior Lien-SRF/SAW | 35,720,000 | - | 35,720,000 | 36,566,300 | - | 36,566,300 |
| Total Principal | \$94,508,600 | \$ - | \$94,508,600 | \$99,955,000 | \$ - | \$99,955,000 |
| Interest | | | | | | |
| Senior Lien | \$86,552,900 | \$ - | \$86,552,900 | \$84,346,900 | \$ - | \$84,346,900 |
| Senior Lien Capital Appreciation | 3,607,600 | - | 3,607,600 | 1,658,800 | - | 1,658,800 |
| Senior Lien Variable Rate | 4,430,300 | - | 4,430,300 | 4,430,300 | - | 4,430,300 |
| Senior Lien-SRF | 1,019,400 | - | 1,019,400 | 813,900 | - | 813,900 |
| Second Lien | 42,637,000 | - | 42,637,000 | 42,323,000 | - | 42,323,000 |
| Junior Lien-SRF/SAW | 9,105,100 | 3,125,000 | 12,230,100 | 8,287,200 | 3,125,000 | 11,412,200 |
| Total Interest | \$147,352,300 | \$3,125,000 | \$150,477,300 | \$141,860,100 | \$3,125,000 | \$144,985,100 |
| Total Debt Service | | | | | | |
| Senior Lien | \$128,652,800 | \$ - | \$128,652,800 | \$131,706,900 | \$ - | \$131,706,900 |
| Senior Lien Capital Appreciation | 5,565,000 | - | 5,565,000 | 2,470,000 | - | 2,470,000 |
| Senior Lien Variable Rate | 4,430,300 | - | 4,430,300 | 4,430,300 | - | 4,430,300 |
| Senior Lien-SRF | 9,270,700 | - | 9,270,700 | 9,271,400 | - | 9,271,400 |
| Second Lien | 49,117,000 | - | 49,117,000 | 49,083,000 | - | 49,083,000 |
| Junior Lien-SRF/SAW | 44,825,100 | 3,125,000 | 47,950,100 | 44,853,500 | 3,125,000 | 47,978,500 |
| Total Debt Service | \$241,860,900 | \$3,125,000 | \$244,985,900 | \$241,815,100 | \$3,125,000 | \$244,940,100 |
| Allocation of Debt Service Per "Schedule 2" | | | | | | |
| Debt Service Allocable to Regional System | | | \$ 222,418,500 | | | \$ 222,372,700 |
| Debt Service Allocable to Local System | | | 22,567,400 | | | 22,567,400 |
| Total Debt Service | | | \$244,985,900 | | | \$244,940,100 |

(2) Includes debt service payments from issuance of \$10,000,000 in SAW Bonds in FY 2016 & \$115,000,000 in SRF Bonds in FY 2017.

SRF: State Revolving Fund Loan Program

SAW: Stormwater, Asset Management, and Wastewater Loan Program

**Great Lakes Water Authority
Outstanding Debt Obligations
FY 2017 and FY 2018**

| Water Fund | | | | |
|--------------------|----------------------|----------------|----------------|-------------------|
| Fiscal Year | Beginning Balance | Payments | Additions | Ending Balance |
| FY 2017 | \$ 2,259,288,800 | \$(61,506,000) | \$ 259,750,000 | \$ 2,457,532,800 |
| FY 2018 | 2,457,532,800 | (63,448,700) | - | 2,394,084,100 |

| Sewer Fund | | | | |
|--------------------|----------------------|----------------|----------------|-------------------|
| Fiscal Year | Beginning Balance | Payments | Additions | Ending Balance |
| FY 2017 | \$ 3,263,959,400 | \$(94,508,627) | \$ 125,000,000 | \$ 3,294,450,773 |
| FY 2018 | 3,294,450,773 | (99,954,923) | - | 3,194,495,850 |

Water Fund Additions: On February 10, 2016, the GLWA Board of Directors approved a Notice of Intent to issue water supply system revenue bonds in a principal amount not to exceed \$300 million. This amount included estimated amounts from Drinking Water Revolving Fund and traditional bond financed proceeds. The amount in the table above of \$259,750,000 represents the combined estimated par amount to be sold in FY 2017 to fund the CIP.

Sewer Fund Additions: On February 10, 2016, the GLWA Board of Directors also approved a Notice of Intent to issue sewage disposal system revenue bonds in a principal amount not to exceed \$125,000,000. This amount is based on the approved State Revolving Fund sewer projects from the CIP which are all scheduled to close in FY 2017, with the exception of the \$10 million in SAW Bonds which are closing in May, 2016.

Water System Revenue Charges

The Water System Revenue Charges are developed by The Foster Group, LLC. The schedule of charges are the product of customer engagement, industry practices, meter data, budgetary decisions, capital needs, debt obligations, cost allocation methodologies, legal documents, and other contracts. The following report from The Foster Group outlines the charge development process and key factors for FY 2017.

The Foster Group, LLC Report – Water System

The proposed water system service charges for FY 2017 reflect the first cost of service and service charge study prepared for GLWA, as prepared by THE FOSTER GROUP and as set forth in a memorandum dated January 26, 2016. That study does not reflect any material modifications from the cost of service methodologies practiced by the Detroit Water and Sewerage Department in prior years, but reflects specific requirements of the Memorandum of Understanding and the Lease(s) that established GLWA. The cost of service study in THE FOSTER GROUP memorandum report only addresses the wholesale service costs of service (revenue requirements) that are GLWA's responsibility, as retail revenue requirement elements solely allocable to the City of Detroit were still under development as of the date of that study. The results of the cost of service study were presented to wholesale customer representatives via the customer outreach program at key milestone dates throughout the study period, and customers were formally notified of their proposed service charges on January 27, 2016. The entire memorandum report is available at <http://www.glwater.org/finances/budget/> on the GLWA web site, and except as otherwise noted, the FY 2017 service charges in this schedule reflect the same charges presented at that meeting.

Water System Schedule of Charges

Great Lakes Water Authority
Proposed FY 2017 Water Supply System Allocated Revenue Requirements and Service Charges

| | Annual Revenue Requirement \$ (a) | Fixed Monthly Charge \$/month 60% | Commodity Charge \$/Mcf 40% | | Projected Sales Volume Mcf | Projected Revenue \$ |
|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------|---------|----------------------------|----------------------|
| <u>Suburban Wholesale</u> | | | | | | |
| 1 | Allen Park | \$ 2,273,400 | \$ 113,700 | \$ 6.59 | 138,000 | \$ 2,273,800 |
| 2 | Almont Village | 214,000 | 10,700 | 9.51 | 9,000 | 214,000 |
| 3 | Ash Township | 727,700 | 36,400 | 7.28 | 40,000 | 728,000 |
| 4 | Belleville | 306,900 | 15,300 | 8.19 | 15,000 | 306,500 |
| 5 | Berlin Township | 706,600 | 35,300 | 9.74 | 29,000 | 706,100 |
| 6 | Brownstown Township | 3,315,000 | 165,800 | 9.75 | 136,000 | 3,315,600 |
| 7 | Bruce Township | 48,600 | 2,400 | 19.40 | 1,000 | 48,200 |
| 8 | Canton Township | 12,771,900 | 638,600 | 15.77 | 324,000 | 12,772,700 |
| 9 | Center Line | 466,500 | 23,300 | 5.49 | 34,000 | 466,300 |
| 10 | Chesterfield Township | 3,719,700 | 186,000 | 9.18 | 162,000 | 3,719,200 |
| 11 | Clinton Township | 7,549,600 | 377,500 | 7.59 | 398,000 | 7,550,800 |
| 12 | Commerce Township | 4,912,800 | 245,600 | 21.13 | 93,000 | 4,912,300 |
| 13 | Dearborn | 9,261,100 | 463,100 | 5.90 | 628,000 | 9,262,400 |
| 14 | Dearborn Heights | 3,727,600 | 186,400 | 6.84 | 218,000 | 3,727,900 |
| 15 | Eastpointe | 1,588,500 | 79,400 | 5.43 | 117,000 | 1,588,100 |
| 16 | Ecorse | 1,438,600 | 70,300 | 3.60 | (b) 156,000 | 1,405,200 |
| 17 | Farmington | 950,500 | 47,500 | 8.09 | 47,000 | 950,200 |
| 18 | Farmington Hills | 8,618,000 | 430,900 | 9.50 | 363,000 | 8,619,300 |
| 19 | Ferndale | 940,000 | 47,000 | 5.70 | 66,000 | 940,200 |
| 20 | Flat Rock | 1,162,500 | 58,100 | 7.50 | 62,000 | 1,162,200 |
| 21 | Fraser | 1,272,600 | 63,600 | 7.83 | 65,000 | 1,272,200 |
| 22 | Garden City | 1,624,000 | 81,200 | 7.06 | 92,000 | 1,623,900 |
| 23 | Genesee County DC | 16,359,100 | 964,800 | 12.71 | (b) 523,000 | 18,224,900 |
| 24 | Gibraltar | 458,700 | 22,900 | 10.79 | 17,000 | 458,200 |
| 25 | Grosse Ile Township | 1,251,600 | 62,600 | 11.64 | 43,000 | 1,251,700 |
| 26 | Grosse Pt. Park | 1,385,500 | 69,300 | 9.09 | 61,000 | 1,386,100 |
| 27 | Grosse Pt. Shores | 602,500 | 30,100 | 12.68 | 19,000 | 602,100 |
| 28 | Grosse Pt. Woods | 1,391,000 | 69,600 | 7.42 | 75,000 | 1,391,700 |
| 29 | Hamtramck | 685,000 | 34,300 | 4.49 | 61,000 | 685,500 |
| 30 | Harper Woods | 847,400 | 42,400 | 5.84 | 58,000 | 847,500 |
| 31 | Harrison Township | 1,375,300 | 68,800 | 5.92 | 93,000 | 1,376,200 |
| 32 | Hazel Park | 692,500 | 34,600 | 5.13 | 54,000 | 692,200 |
| 33 | Highland Park | 1,202,900 | 62,600 | 4.56 | (b) 110,000 | 1,252,800 |
| 34 | Huron Township | 1,376,500 | 68,800 | 9.18 | 60,000 | 1,376,400 |
| 35 | Imlay City | 1,136,200 | 56,800 | 11.22 | 40,500 | 1,136,000 |
| 36 | Inkster | 1,795,200 | 89,800 | 6.90 | 104,000 | 1,795,200 |

Great Lakes Water Authority
 Proposed FY 2017 Water Supply System Allocated Revenue Requirements and Service Charges

| | Annual Revenue Requirement \$ (a) | Fixed Monthly Charge \$/month 60% | Commodity Charge \$/Mcf 40% | Projected Sales Volume Mcf | Projected Revenue \$ | |
|----------------------------------|---------------------------------------|-----------------------------------|-----------------------------|----------------------------|----------------------|------------|
| <u>Suburban Wholesale</u> | | | | | | |
| 37 | Keego Harbor | 305,900 | 15,300 | 11.13 | 11,000 | 306,000 |
| 38 | Lapeer | 1,394,500 | 69,700 | 9.36 | 59,600 | 1,394,300 |
| 39 | Lenox Township | 295,900 | 14,800 | 6.23 | 19,000 | 296,000 |
| 40 | Lincoln Park | 2,168,300 | 108,400 | 5.94 | 146,000 | 2,168,000 |
| 41 | Livonia | 13,273,500 | 663,700 | 10.88 | 488,000 | 13,273,800 |
| 42 | Macomb Township | 10,319,300 | 516,000 | 13.90 | 297,000 | 10,320,300 |
| 43 | Madison Heights | 1,993,400 | 99,700 | 5.39 | 148,000 | 1,994,100 |
| 44 | Mayfield Township | 28,800 | 1,400 | 23.86 | 482 | 28,300 |
| 45 | Melvindale | 654,100 | 32,700 | 5.57 | 47,000 | 654,200 |
| 46 | New Haven, Village of | 365,200 | 17,100 | 9.79 | 14,000 | 342,300 |
| 47 | N O C W A | 22,747,400 | 1,137,400 | 9.78 | 930,000 | 22,744,200 |
| 48 | Northville | 728,600 | 36,400 | 9.11 | 32,000 | 728,300 |
| 49 | Northville Township | 6,438,600 | 321,900 | 20.12 | 128,000 | 6,438,200 |
| 50 | Novi | 8,537,000 | 426,900 | 12.98 | 263,000 | 8,536,500 |
| 51 | Oak Park | 1,287,400 | 64,400 | 5.00 | 103,000 | 1,287,800 |
| 52 | Oakland Co. Drain Comm. | 64,000 | 3,200 | 2.84 | 9,000 | 64,000 |
| 53 | Plymouth | 1,002,100 | 50,100 | 9.54 | 42,000 | 1,001,900 |
| 54 | Plymouth Township | 4,104,600 | 205,200 | 9.95 | 165,000 | 4,104,200 |
| 55 | Redford Township | 3,330,800 | 166,500 | 7.70 | 173,000 | 3,330,100 |
| 56 | River Rouge | 688,800 | 34,400 | 4.75 | 58,000 | 688,300 |
| 57 | Riverview | 1,066,700 | 44,800 | 7.79 | (b) 46,000 | 895,900 |
| 58 | Rockwood | 293,300 | 14,700 | 10.66 | 11,000 | 293,700 |
| 59 | Romeo | 255,800 | 12,800 | 17.05 | 6,000 | 255,900 |
| 60 | Romulus | 3,592,600 | 179,600 | 7.33 | 196,000 | 3,591,900 |
| 61 | Roseville | 2,609,100 | 130,500 | 5.02 | 208,000 | 2,610,200 |
| 62 | Royal Oak Township | 247,400 | 11,200 | 7.47 | (b) 12,000 | 224,000 |
| 63 | S O C W A | 21,997,500 | 1,099,900 | 6.84 | 1,286,000 | 21,995,000 |
| 64 | Shelby Township | 13,357,300 | 667,900 | 13.49 | 396,000 | 13,356,800 |
| 65 | South Rockwood | 100,900 | 5,000 | 8.08 | 5,000 | 100,400 |
| 66 | Southgate | 2,118,000 | 105,900 | 6.83 | 124,000 | 2,117,700 |
| 67 | St. Clair County-Burtchville Township | 291,900 | 14,600 | 12.98 | 9,000 | 292,000 |
| 68 | St. Clair County-Greenwood | 379,200 | 19,000 | 15.17 | 10,000 | 379,700 |
| 69 | St. Clair Shores | 3,008,600 | 150,400 | 5.45 | 221,000 | 3,009,300 |
| 70 | Sterling Heights | 15,497,900 | 774,900 | 10.05 | 617,000 | 15,499,700 |
| 71 | Sumpter Township | 636,500 | 31,800 | 8.49 | 30,000 | 636,300 |
| 72 | Sylvan Lake | 233,900 | 11,700 | 13.37 | 7,000 | 234,000 |
| 73 | Taylor | 4,716,700 | 235,800 | 6.60 | 286,000 | 4,717,200 |

Great Lakes Water Authority
Proposed FY 2017 Water Supply System Allocated Revenue Requirements and Service Charges

| | Annual Revenue Requirement \$ (a) | Fixed Monthly Charge \$/month 60% | Commodity Charge \$/Mcf 40% | | Projected Sales Volume Mcf | Projected Revenue \$ |
|--------------------------------------|---|-----------------------------------|-----------------------------|--------------|----------------------------|-----------------------|
| <u>Suburban Wholesale</u> | | | | | | |
| 74 | Trenton | 2,075,500 | 103,800 | 9.12 | 91,000 | 2,075,500 |
| 75 | Troy | 13,060,500 | 653,000 | 12.01 | 435,000 | 13,060,400 |
| 76 | Utica | 578,100 | 28,900 | 10.05 | 23,000 | 578,000 |
| 77 | Van Buren Township | 2,817,400 | 140,900 | 8.54 | 132,000 | 2,818,100 |
| 78 | Walled Lake | 903,400 | 45,200 | 11.66 | 31,000 | 903,900 |
| 79 | Warren | 9,803,200 | 490,200 | 5.42 | 723,000 | 9,801,100 |
| 80 | Washington Township | 3,016,700 | 150,800 | 18.28 | 66,000 | 3,016,100 |
| 81 | Wayne | 2,649,000 | 132,500 | 10.70 | 99,000 | 2,649,300 |
| 82 | West Bloomfield Township | 9,739,300 | 487,000 | 15.16 | 257,000 | 9,740,100 |
| 83 | Westland | 5,906,500 | 295,300 | 7.45 | 317,000 | 5,905,300 |
| 84 | Wixom | 2,317,100 | 115,900 | 14.48 | 64,000 | 2,317,500 |
| 85 | Woodhaven | 2,002,600 | 100,100 | 12.52 | 64,000 | 2,002,500 |
| 86 | Ypsilanti Community Utility Authority | 10,489,000 | 524,500 | 8.56 | 490,000 | 10,488,400 |
| 87 | Imlay Township | <u>NA</u> | <u>134</u> | <u>10.84</u> | <u>135</u> | <u>3,100</u> |
| 88 | Net Requirement from Wholesale Charges (agrees with GLWA Budget "Schedule 2") | \$ 313,645,300 | \$ 15,819,434 | 8.90 | 13,906,717 | \$ 315,311,400 |
| <u>Detroit Customer Class</u> | | | | | | |
| 89 | Wholesale Revenue Requirements (c) | \$ 15,490,300 | NA | NA | | \$ 15,490,300 |
| 90 | Indirect Retail Revenue Requirements (d) | 40,536,000 | NA | NA | | 40,536,000 |
| 91 | Direct Retail Revenue Requirements (e) | <u>36,574,900</u> | NA | NA | | <u>36,574,900</u> |
| 92 | Gross Total | 92,601,200 | NA | NA | | 92,601,200 |
| 93 | less: Estimated Miscellaneous Operating Revenue | <u>(4,750,000)</u> | | | | <u>(4,750,000)</u> |
| 94 | Net Requirement from Detroit Customer Class (agrees with GLWA Budget "Schedule 2") | \$ 87,851,200 | NA | NA | | \$ 87,851,200 |

(a) As determined in FY 2017 Cost of Service Study, set forth in January 26, 2016 memorandum from THE FOSTER GROUP.

(b) Reflects adjustments made after the FY 2017 Cost of Service Study.

(c) Reflects Great Lakes Water Authority (GLWA) wholesale amounts only, net of ownership credit of \$20,700,000 per the water lease agreement.

(d) Reflects amounts allocable to the Detroit Local System which are subject to the GLWA Master Bond Ordinance flow of funds.

(e) Reflects amounts allocable to the Local System, for which GLWA transfers monies to DWSD.

Mcf – per 1,000 cubic feet

Sewer System Revenue Charges

The Sewer System Revenue Charges are developed by The Foster Group, LLC. The schedule of charges are the product of customer engagement, industry practices, meter data, budgetary decisions, capital needs, debt obligations, cost allocation methodologies, legal documents, and other contracts. The following report from The Foster Group outlines the charge development process and key factors for FY 2017.

The Foster Group, LLC Report – Sewer System

The proposed sewer system service charges for FY 2017 reflect the first cost of service and service charge study prepared for GLWA, as prepared by THE FOSTER GROUP and as set forth in a memorandum dated January 26, 2016. That study does not reflect any material modifications from the cost of service methodologies practiced by the Detroit Water and Sewerage Department in prior years, but reflects specific requirements of the Memorandum of Understanding and the Lease(s) that established GLWA. The cost of service study in THE FOSTER GROUP memorandum report only addresses the wholesale service costs of service (revenue requirements) that are GLWA's responsibility, as retail revenue requirement elements solely allocable to the City of Detroit were still under development as of the date of that study. The results of the cost of service study were presented to wholesale customer representatives via the customer outreach program at key milestone dates throughout the study period, and customers were formally notified of their proposed service charges on January 27, 2016. The entire memorandum report is available at <http://www.glwater.org/finances/budget/> on the GLWA web site. The only modification to the wholesale charges presented at that meeting reflect a modified approach to recovering the "bad debt true-up" associated with Highland Park bad debt expense from FY 2013 through FY 2015. The original cost of service study report assumed a four-year implementation plan for revering this variance. The final proposed charges reflect a five-year implementation plan.

Sewer System Schedule of Charges

Great Lakes Water Authority
Proposed FY 2017 Sewage Disposal System Allocated Revenue Requirements and Service Charges

| | | Annual Revenue Requirement | | | Fixed Monthly Charge | | |
|-------------------------------|---|----------------------------|--------------|--------------------|----------------------|------------|--------------|
| | | FY 2017 | Bad Debt | | FY 2017 | Bad Debt | |
| | | BUDGET | True-Up | Total | BUDGET | True-Up | Total |
| Suburban Wholesale | | | | | | | |
| 1 | OMID | \$ 68,837,200 | \$ 789,300 | \$ 69,626,500 | \$ 5,736,400 | \$ 65,900 | \$ 5,802,300 |
| 2 | Rouge Valley | 54,746,400 | 738,800 | 55,485,200 | 4,562,200 | 61,700 | 4,623,900 |
| 3 | Oakland GWK | 45,050,800 | 631,400 | 45,682,200 | 3,754,200 | 52,700 | 3,806,900 |
| 4 | Evergreen Farmington | 31,751,700 | 425,900 | 32,177,600 | 2,646,000 | 35,600 | 2,681,600 |
| 5 | NE Wayne Co | 23,782,200 | 337,100 | 24,119,300 | 1,981,900 | 28,100 | 2,010,000 |
| 6 | Dearborn | 19,332,500 | 270,200 | 19,602,700 | 1,611,000 | 22,600 | 1,633,600 |
| 7 | Grosse Pointe Farms | 2,630,500 | 36,600 | 2,667,100 | 219,200 | 3,100 | 222,300 |
| 8 | Grosse Pointe Park | 1,604,900 | 22,100 | 1,627,000 | 133,700 | 1,800 | 135,500 |
| 9 | Melvindale | 1,363,000 | 18,200 | 1,381,200 | 113,600 | 1,500 | 115,100 |
| 10 | Farmington | 1,094,100 | 14,800 | 1,108,900 | 91,200 | 1,300 | 92,500 |
| 11 | Center Line | 914,000 | 11,700 | 925,700 | 76,200 | 1,000 | 77,200 |
| 12 | Allen Park | 661,000 | 8,700 | 669,700 | 55,100 | 900 | 56,000 |
| 13 | Highland Park | 5,745,600 | 73,500 | 5,819,100 | 478,800 | 6,100 | 484,900 |
| 14 | Hamtramck | 4,024,700 | 59,900 | 4,084,600 | 335,400 | 5,100 | 340,500 |
| 15 | Grosse Pointe | 927,500 | 14,200 | 941,700 | 77,300 | 1,200 | 78,500 |
| 16 | Harper Woods | 237,000 | 3,800 | 240,800 | 19,800 | 200 | 20,000 |
| 17 | Redford Township | 258,900 | 2,500 | 261,400 | 21,600 | 100 | 21,700 |
| 18 | Wayne County #3 | <u>46,000</u> | <u>400</u> | <u>46,400</u> | <u>3,800</u> | <u>100</u> | <u>3,900</u> |
| 19 | Gross Total | 263,008,000 | 3,459,100 | 266,467,100 | 21,917,400 | 289,000 | 22,206,400 |
| 20 | less: Estimated Bad Debt Expense | <u>(5,600,000)</u> | <u>NA</u> | <u>(5,600,000)</u> | NA | NA | NA |
| 21 | Subtotal Suburban Wholesale Contract Customers | 257,408,000 | 3,459,100 | 260,867,100 | NA | NA | NA |
| 22 | Industrial Waste Control Charges | 14,259,700 | NA | 14,259,700 | NA | NA | NA |
| 23 | Industrial Surcharges | <u>5,163,500</u> | NA | <u>5,163,500</u> | NA | NA | NA |
| 24 | Subtotal "Regional Wholesale Revenues" (agrees with GLWA Budget "Schedule 2") | \$ 276,831,200 | \$ 3,459,100 | \$ 280,290,300 | NA | NA | NA |
| Detroit Customer Class | | | | | | | |
| 25 | Wholesale Revenue Requirements (a) | 183,131,500 | 4,172,600 | 187,304,100 | NA | NA | NA |
| 26 | Indirect Retail Revenue Requirements (b) | 31,367,700 | NA | 31,367,700 | NA | NA | NA |
| 27 | Direct Retail Revenue Requirements (c) | <u>41,535,500</u> | <u>NA</u> | <u>41,535,500</u> | NA | NA | NA |
| 28 | Gross Total | 256,034,700 | 4,172,600 | 260,207,300 | NA | NA | NA |
| 29 | less: Estimated Miscellaneous Operating Revenue | <u>(5,000,000)</u> | <u>NA</u> | <u>(5,000,000)</u> | NA | NA | NA |
| 30 | Net Requirement from Detroit Customer Rates (agrees with GLWA Budget "Schedule 2") | \$ 251,034,700 | \$ 4,172,600 | \$ 255,207,300 | NA | NA | NA |

(a) Reflects Great Lakes Water Authority (GLWA) wholesale amounts only, net of ownership benefit of \$5,516,000.

(b) Reflects amounts allocable to the Detroit Local System which are subject to the GLWA Master Bond Ordinance flow of funds.

(c) Reflects amounts allocable to the Local System, for which GLWA transfers monies to DWSD.

Abbreviations

CIP – Capital Improvement Plan

DWRF – Drinking Water Revolving Fund

GRS – City of Detroit General Retirement System

I&E Fund – Improvement & Extension Fund

MOU – Memorandum of Understanding

O&M – Operations & Maintenance

OPEB – Other Postemployment Benefits

SAW – Stormwater, Asset Management, and Wastewater Loan Program

SRF – State Revolving Fund

UAAL - Unfunded Accrued Actuarial Liability

WRAP - Water Residential Assistance Program