

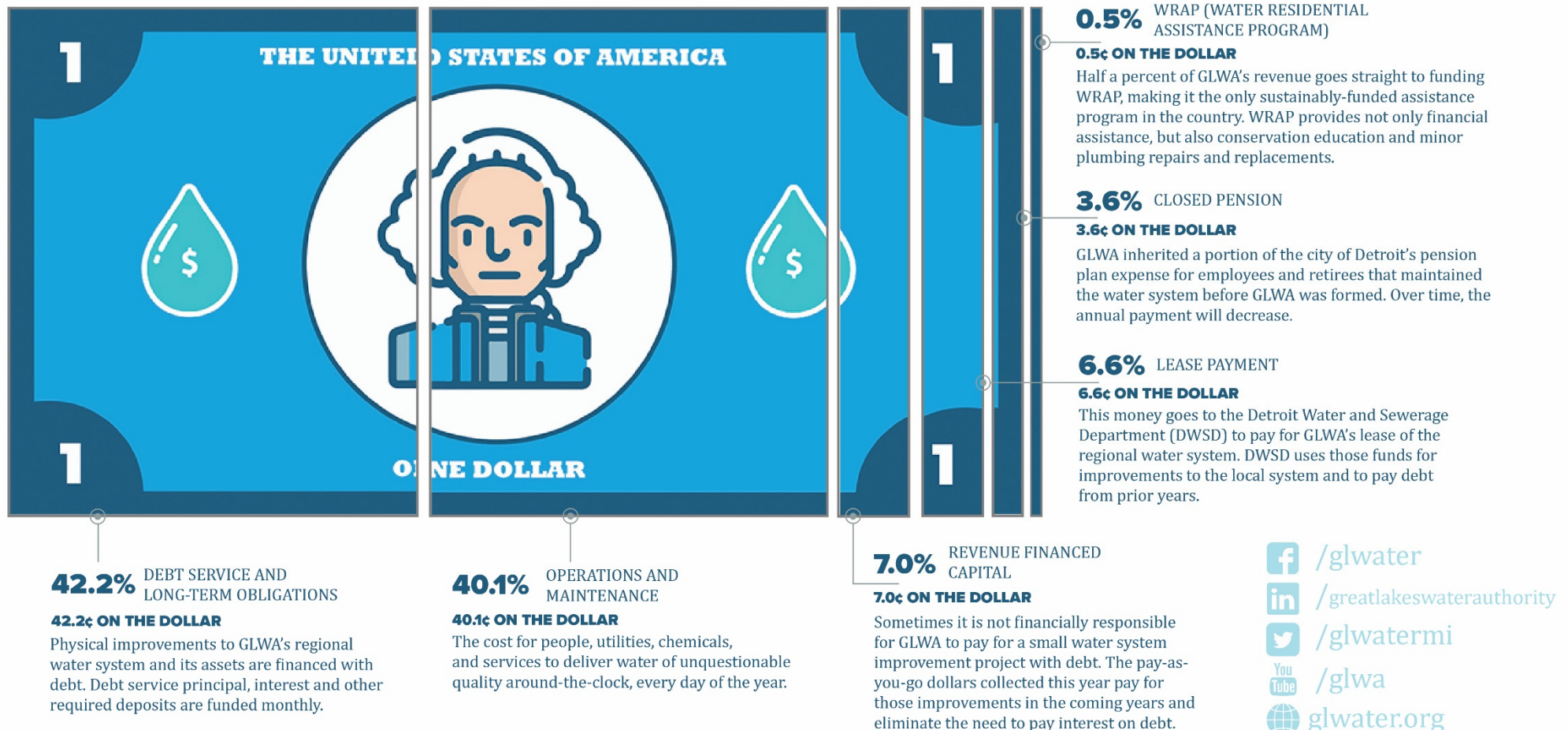
FY 2021 and FY 2022  
**Biennial Budget &  
Five Year Financial Plan**  
FY 2021 through FY 2025



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# MAKING SENSE OF YOUR DOLLARS

Every dollar paid to GLWA for **Water Services** provides for...



WE ARE ONE WATER

*Note: Percentages based on FY 2021 approved budget.*

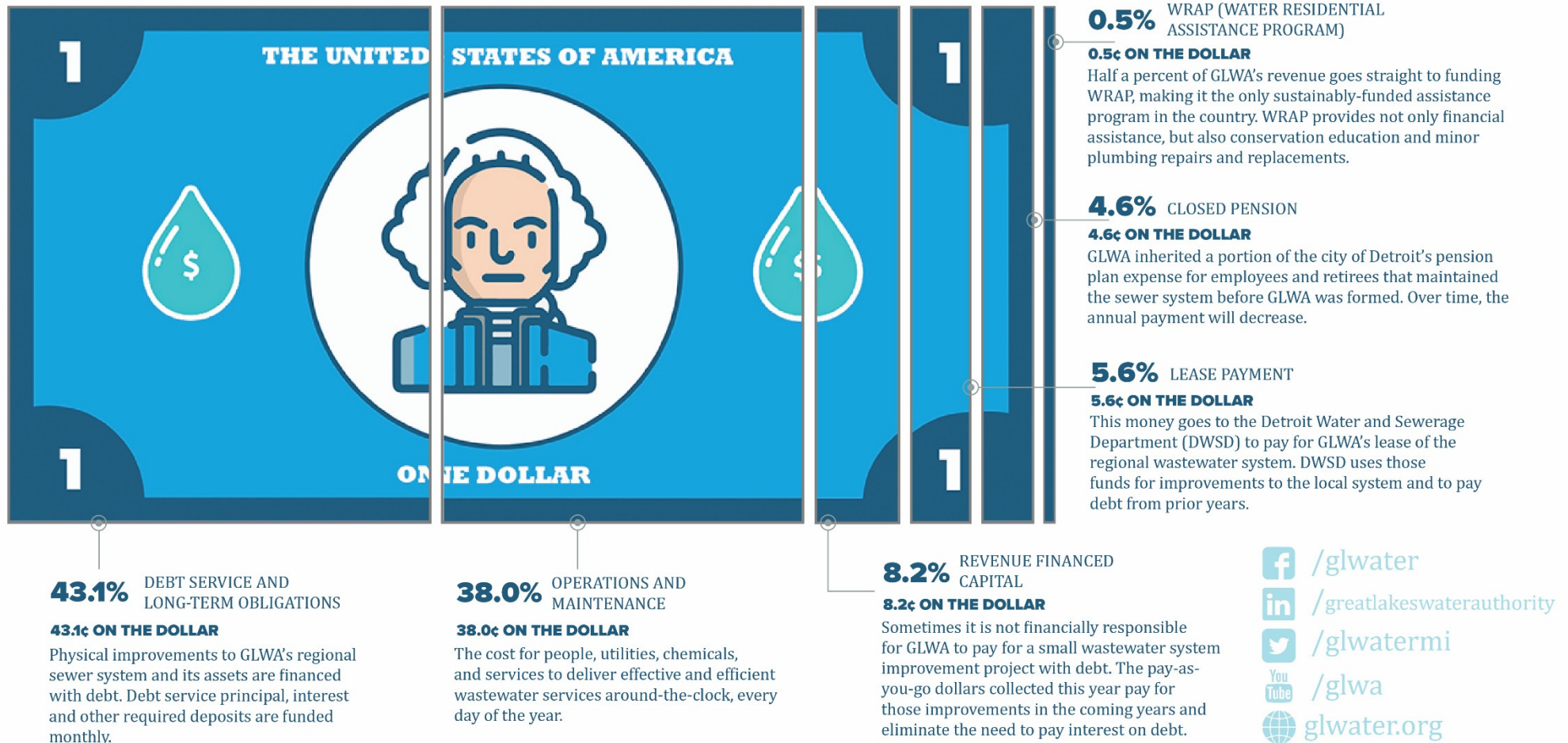


## FY 2021 Water System Budget Infographic



# MAKING SENSE OF YOUR DOLLARS

Every dollar paid to GLWA for **Wastewater Services** provides for...



## WE ARE ONE WATER

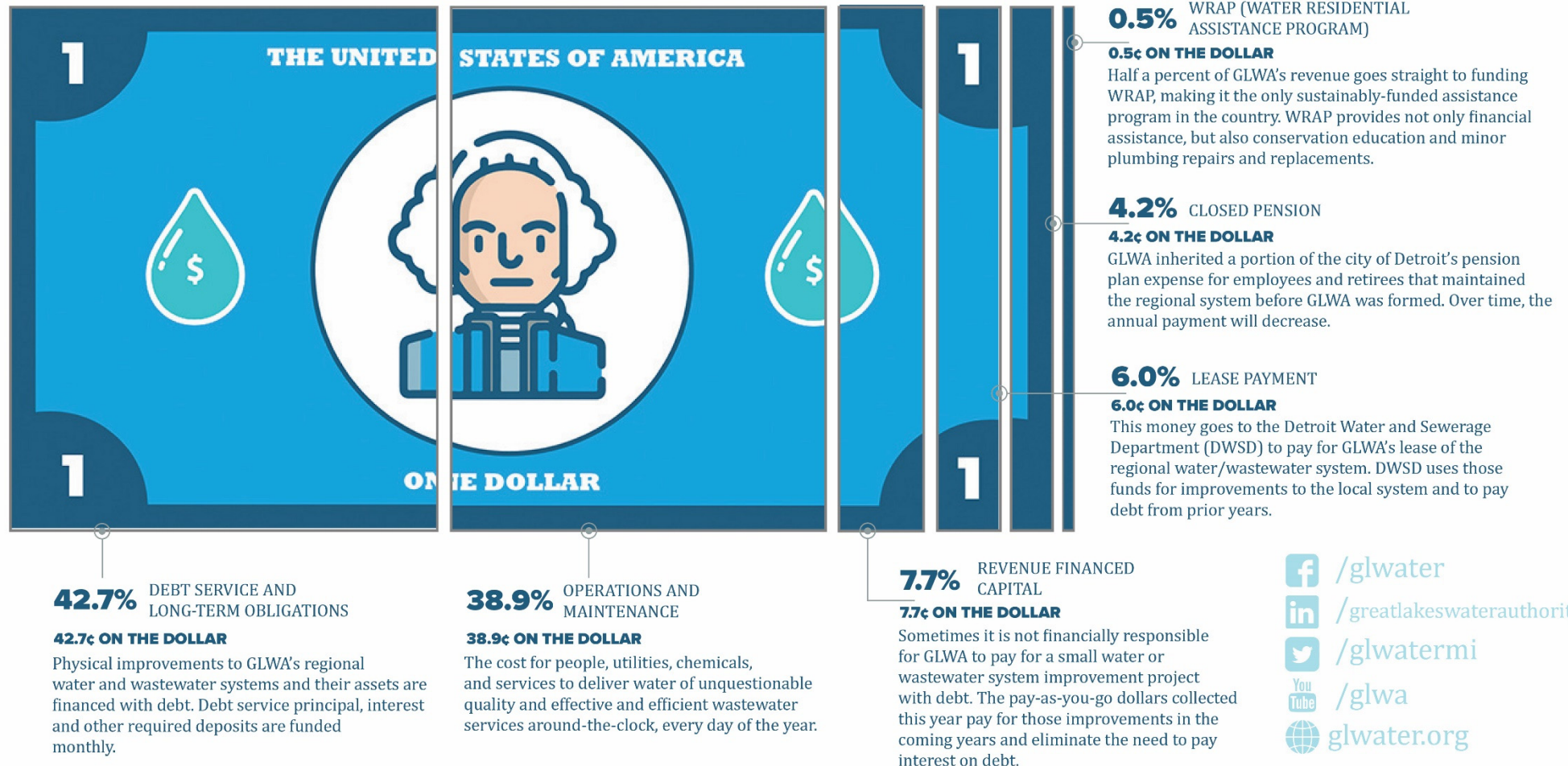
*Note: Percentages based on FY 2021 approved budget.*

## ***FY 2021 Wastewater System Budget Infographic***



# MAKING SENSE OF YOUR DOLLARS

Every dollar paid to GLWA for combined **Water and Wastewater Services** provides for...



WE ARE ONE WATER

Note: Percentages based on FY 2021 approved budget.

## FY 2021 Water and Wastewater Combined Budget Infographic

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## **A Message from Chief Executive Officer Sue F. McCormick**

To Our Valued Partners,

The GLWA team is honored to be entrusted with providing safe, reliable drinking water and environmentally responsible wastewater service to southeast Michigan. As we enter our *fifth* full fiscal year on July 1, 2020, we see an organization that has embraced seeking best-in-class commitments to address long-term service sector challenges. The budget and five-year financial plan are designed to demonstrate our stewardship of the regional system's assets and commitment to cost control, transparency, and strong financial management.

### **FY 2021 Budget Highlights**

The FY 2021 Budget delivers on accomplishing our financial plan objectives and reaching our organizational strategic goals. Five key priorities shape budget development decisions:

- 1) *4 Percent Promise*: managing the overall budget within the commitment established in GLWA's founding documents to limit annual increases in the overall budget to four percent or less;
- 2) *Long-term Financial Sustainability*: advancing the path toward long-term stability and equity in the services charges model;
- 3) *Controlled O&M*: annual operations and maintenance (O&M) increases indicative of activities that support operational optimization;
- 4) *Asset Management Focus*: strategic investment in the regional system; and
- 5) *Charges Equity & Stability*: ongoing effort to ensure that cost of service is equitably shared and is predictable and moderated.

*Water System* – The approved water system budget and schedule of charges translates the above outlined goals into actions – which results in an outcome where water charges for suburban wholesale member partners increased 3.1 percent and a system-wide adjustment of 3.2 percent. Those goals and related actions include:

- 1) *4 Percent Promise*: limiting the water system revenue requirement (budget) to a 0.6 percent increase from the prior year; well under the 4 percent promise. The average overall charges increase to all member partners is 3.2 percent which is attributed to projected decreases in investment income and sales volume, each of which add approximately 1.3 percent to reconcile the 0.6 percent budget increase and the average charge increase of 3.2 percent;
- 2) *Long-term Financial Sustainability*: budgeted debt service coverage of 1.81 on Senior Lien Bonds and 1.28 on all bonds, and a \$24 million deposit to the Improvement & Extension fund to lower the cost of future borrowing;
- 3) *Controlled O&M*: water O&M increase controlled at 4.3 percent – overall water and sewer O&M increase of 1.1 percent;
- 4) *Asset Management Focus*: budget reflects launch of improvement initiatives from the Strategic Asset Management Plan adopted in FY 2020;

- 5) *Charges Stability and Equity Goal*: The FY 2021 water service charges were increased uniformly to achieve a 3.0 percent increase in the wholesale cost of service, reflecting precise stability pending review of the overall water charges methodology.

*Sewer System* – Similarly, the approved sewer system budget and schedule of charges translates the above outlined goals into actions – which results in an outcome where sewer charges for suburban wholesale member partners will increase by an average of 1.7 percent and an increase of 2.0 percent for the DWSD customer class. Those goals and related actions include:

1. *4 Percent Promise*: limiting the sewer system revenue requirement (budget) to a 1.3 percent increase from the prior year; well under the 4 percent promise. The average overall charges increase to all member partners is 2.0 percent. The difference between the two figures is attributed to a decrease in projected investment income;
2. *Long-term Financial Sustainability*: budgeted debt service coverage of 2.44 on Senior Lien Bonds and 1.34 on all bonds, and a \$39.7 million deposit to the Improvement & Extension fund to lower the cost of future borrowing;
3. *Controlled O&M*: sewer O&M decrease of 1.1 percent – overall water and sewer O&M increase of 1.1 percent;
4. *Asset Management Focus*: budget reflects launch of improvement initiatives from the Strategic Asset Management Plan adopted in FY 2020;
5. *Charges Stability and Equity Goal*: FY 2021 sewer service charges were increased uniformly to achieve a 2.25 percent increase in the wholesale cost of service, reflecting precise stability pending review of potential modifications to the sewer charges methodology. Highland Park is continuing to make partial payments which has stabilized the bad debt charge to wholesale member partners.

## Other Initiatives

### *Transparency*

While we recognize that budget documents are lengthy in order to foster transparency by sharing large amounts of information, we also recognize that documents which are succinct, often have a more effective and far-reaching impact to further enhance transparency. Following this budget message are two documents from the GLWA One-Pager series. The *Biennial Budget and Five-Year Financial Plan* and *Water and Sewer Service Charges* one-pager documents are designed for our Member Partners and other stakeholders to share with their constituents. Budget infographics on the inside cover of this document provide further transparency and improved communication.

### *WRAP Success*

The Water Residential Assistance Program (WRAP) is a unique program in our service sector that started with the formation of the GLWA. The program administration began in March 2016. It was modified in March 2020 by the GLWA's Board of Directors to increase the eligibility criteria and to allow an increased contribution percentage. The program provides that an amount equal to half of one percent (.50 percent) of GLWA Regional Systems revenue and not less than half of one percent

(.50 percent) but not greater than one percent (1.0 percent) of DWSD Local Systems revenues be set aside to provide assistance to qualified residents in participating communities across southeast Michigan. For the FY 2021 budget, this amounts to \$4.1 million from GLWA revenues and \$2.0 million from DWSD revenues for a total of \$6.1 million. WRAP includes water bill payment assistance, arrearage assistance, in-home water audits, water conservation education, and an average of \$1,500 per home to fix leaks and other minor home plumbing repairs. WRAP is administered by Wayne Metro Community Action Agency. More information is online at [www.waynemetro.org/WRAP/](http://www.waynemetro.org/WRAP/).

### *Reducing Debt Service*

After the FY 2021 and FY 2022 biennial budget was adopted by the Board in March 2020, GLWA issued refunding bonds for the water system in May 2020 and the sewage disposal system in June 2020. Those successful transactions resulted in favorable interest rates on new debt and cash flow savings of approximately \$324 million over the life of refunded bonds (\$103 million for water and \$221 million for sewer) which will be reflected as FY 2021 first quarter budget amendments.

### ***Emerging Priority: COVID-19 Pandemic***

On March 11, 2020, the Board adopted the FY 2021 and FY 2022 biennial budget and FY 2021 Schedule of Service Charges. Soon after the Board took that action, the coronavirus (COVID-19) pandemic afflicted the United States, causing President Donald Trump to declare a National Emergency and Michigan Governor Gretchen Whitmer to declare a State of Emergency in Michigan. Further, Governor Whitmer issued Stay Home/ Stay Safe Orders as well orders preventing local utilities from discontinuing water service during the declared State of Emergency. While Michigan has seen positive results from its efforts to slow the spread of COVID-19, the ultimate duration and impact of the virus continue to remain unclear. Similarly, the duration and effects of the pandemic on the national economy, Michigan economy, and local economies within the GLWA service area remains unknown.

In response to the COVID-19 pandemic, the Board approved a deferral of the implementation of FY 2021 charges from July 1, 2020 to October 1, 2020. By delaying the effective date of its adjustment to the charges by one quarter of the fiscal year, GLWA member partners will experience a 25 percent reduction for those who had increases in their wholesale water and/or sewer costs. This reduction will allow these member-partner utilities to have the flexibility to adjust their operations and cash flows in order to better provide service to their customers and account for any potential lag in collections. Similarly, GLWA took a corresponding action to adjust spending and/or budget adjustments until the impact of the current COVID-19 pandemic is better understood. Based on what we know to date, the proposed budget amendments for FY 2021 have been prepared: (a) reflecting the impact of the COVID-19 pandemic on GLWA's operations and revenues and (b) allowing GLWA to continue to operate in a fiscally prudent manner with a balanced budget. The delay of the effective date of the FY 2021 Schedule of Service Charges will reduce the revenue available for water operations by approximately \$3,000,000 and for sewer operations by \$2,650,000. The approved plan for the proposed FY 2021 budget reductions addresses the revenue reduction with corresponding expense reductions for the combined total of \$5,650,000.



The initial estimate for a COVID-19 first Federal Emergency Management Agency (FEMA) reimbursement request is for \$1.4 million, which covers costs already incurred for cleaning, health screenings, and supplies to help us keep our team members safe and maintain our continuity of operation over the initial four months of the pandemic. Although we are building layers into our reconstitution plan to provide for the many unknowns that exist, we are in the process of looking at our FY 2021 budget to evaluate our systemwide priorities to ensure that our spend aligns with current realities with an awareness to be more agile in the use of our resources and focus on long-term sustainability and affordability.

### **Looking Ahead: FY 2021 through FY 2025 Financial Plan**

In order to achieve our goals and validate our assumptions, a biennial budget combined with a five-year plan provides a roadmap for the future and allows us to lessen risk of events beyond our control. Supplemental schedules and analysis are provided to address unique budget elements.

The budget presented in this document is based on the budget document approved by the Board on March 11, 2020. It does not take into account changes made to the budget for the impacts of COVID-19 subsequent to the original approval date, nor does it include the savings recognized in the successful bond refunding transactions in May and June 2020.

As you read this document, you will notice our commitment to:

- ✓ The promise to keep the revenue requirement increase to less than 4 percent;
- ✓ Work with our member partners to advance equity and stability in charges;
- ✓ Build revenue financed capital to reduce the burden of long-term debt;
- ✓ Attract, engage, empower, and develop team members and foster technical and leadership opportunities in the region;
- ✓ Provide strong debt service coverage to achieve a lower cost of capital for our member partners; and
- ✓ Strategically initiate programs and implement new technology.

### **Thank You!**

The GLWA team is grateful to the vast number of stakeholders who support the Authority's day-to-day activities while setting the course for the future as outlined in this financial plan. We are truly *One Water, One Team*.



Sue F. McCormick  
Chief Executive Office

The combined GLWA revenue requirement budget is the basis for establishing the annual charges for services. Much of the FY 2021 budget of \$828 million is fixed commitments such as debt service (42%), lease payment (6%), legacy liabilities (4%) as well as capital funding (8%), and other (1%). Operations & Maintenance (O&M) expense represents \$322 million, or 39%, of the total requirement for FY 2021 and is the focus of this One Pager. FY 2021 O&M presents an increase of \$3.5 million, or 1.1%, over FY 2020. The second year of the biennial budget, FY 2022 O&M increases 2%. Highlights for the upcoming year include:

***Water Operations – increase of \$5.9 million***

Budgetary increases include the following: Personnel Costs (\$1.3 million) due to the addition of positions as well as increases in wages and benefits; Utilities (\$949,000) based on historical trends; Contractual Operating Services: switchgear maintenance and testing project for the 5 water treatment plants and water pumping stations (\$864,000) and alum sludge removal, hauling and disposal project (\$846,000); Unallocated Reserve (\$932,000) for unforeseen expenditures such as fluctuations in project timing and personnel costs.

***Wastewater Operations – decrease \$466 thousand***

Supplies & Other was reduced by \$904,000 for the deferral of the CSO sludge removal project. In addition, due to refinements in this cost category, Unallocated Reserve was decreased by \$1.7 million. Increases include Personnel Costs (\$1.6 million) due to the addition of positions as well as increases in wages and benefits and Contractual Services (\$650,000) due to task order contracts put in place to manage and move projects forward.

***Centralized Services<sup>1</sup> – decrease \$4.2 million***

Factors that decreased the budget include a

reduction of contractual services in area of Planning Services (\$2.0 million) due to material completion of large consulting projects for asset management and the wastewater master plan in FY 2020. In addition, the pace of spending for the new, annual Water Transmission System Pipe Integrity Program has been slowed to align with other operational demands and projects. Due to refinements in this cost category, the Unallocated Reserve was decreased by \$5.7 million.

Factors increasing the budget are related to information technology (\$3.1 million). This includes a loss of \$1.6 million in information shared service reimbursements as well as \$1.5 million for implementation expenses for a new enterprise asset management system as well as additional Innovyze and Oracle licensing/support.

***Administrative Services<sup>2</sup> – increase \$2.1 million***

The administrative services budget is largely driven by personnel costs and contractual services for eight areas. Programs that are supported by these increases include One Water Institute, procurement strategic initiatives, internal audit, and government relations service.

***Staffing*** – Both the staffing plan (number of positions), at 1,219, and full-time equivalents (FTEs), at 1,199.50, have increased by 12 from the prior year plan. Based on FTEs, two positions are in water operations, four in wastewater operations, one in safety, two in organizational development, two in financial services and a partial allocation among other areas. The budget is based on FTE which represents the number of hours that a position is filled for that year.

***Questions?*** Contact the Office of the Chief Financial Officer at [cfo@glwater.org](mailto:cfo@glwater.org)

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<sup>1</sup> Includes the Planning Services, Systems Operations Control; Facility and Fleet Operations; Field Service Operations; Energy, Research & Innovation; Information Technology; and Security & Integrity/HazMat.

<sup>2</sup> Includes the Board of Directors, Chief Executive Officer, Chief Administrative & Compliance Officer, Risk Management & Safety, General Counsel, Public Affairs, Organizational Development, and Financial Services



## FY 2021 Service Charges Highlights

On February 26, 2020, the GLWA Board of Directors held a Public Hearing for the proposed schedule of charges for the fiscal year beginning July 1, 2020. The Board approved the schedule of charges at its meeting on March 11, 2020.

### Charges are Based on Four Key Elements.

**1) Budget:** The costs for the daily operations and maintenance activities (such as the people, services, utilities, chemicals, and parts to operate plants and maintain the pipelines), the lease payment for the regional system, Water Residential Assistance Program (WRAP) funding, debt service, legacy pension, and capital project funding. The budget is also known as the “revenue requirement”.

**2) Capital Improvement Plan (CIP):** Annually the GLWA’s engineers evaluate the physical improvement needs of the regional systems. Those needs are funded by a combination of cash on hand and debt.

**3) Units of Service (UOS):** Quantifies each community’s service needs based on engineering studies, metering data, and other criteria. For the water system, this includes the amount of water purchased each year. For the sewer system, each member partner is assigned a percentage “share.”

**4) Cost of Service Study (COS):** The inputs from the three sources above are applied to an agreed upon charges methodology to allocate the revenue requirement (i.e. budget) by functional categories (such as purification for the water system or sludge disposal for the sewer system) and then allocated to each customer. The outcome is the charge calculation for each community. Unique to FY 2021, the proposed charges are indexed from the previous year’s charges given a

concentrated effort to evaluate the charges methodology with our member partners.

### Approved FY 2021 Water System Charges

The average wholesale water charge increase is 3.1 percent with the entire system adjustment at 3.2 percent. This outcome is the result of 1) an approved FY 2021 Water budget increase of 0.6 percent, 2) reduced investment earnings, and 3) reduced estimated sales volumes which has the impact of increasing the unit cost. As a result of the 2019 Contract Alignment Process (CAP), the FY 2021 Units of Service were virtually unchanged from FY 2020. This has significantly improved charge stability among member partner communities. The increase will be applied uniformly to all member partners that did not have changes in contractual demand.

### Approved FY 2021 Sewer System Charges

The average wholesale sewer charge increase is 1.7 percent with the entire system adjustment at 2.0 percent. This outcome is the result of 1) an approved FY 2021 Sewer budget increase of 1.3 percent and 2) reduced investment earnings. Since there were no changes made to the sewer shares for FY 2021, the increase will be applied uniformly to all member partners.

### Average System Charge Adjustments

Year	Water	Sewer
2017	4.5%	8.3%
2018	1.8%	-0.7%
2019	1.8%	0.1%
2020	0.6%	0.8%
2021	3.2%	2.0%
Five Year Average	2.4%	2.1%



Charge Adjustments					
	2018	2019	2020	2021	Projected 2022
<b>Water System</b>					
Change in budgeted revenue requirement [1]	-0.9%	1.0%	2.5%	0.6%	3.0%
Average annual charge adjustment [2]					
Total regional system	1.8%	1.8%	0.6%	3.2%	N/A [6]
Wholesale customers	2.0%	0.2%	0.3%	3.1%	N/A [6]
Local system charge [3]	-1.0%	14.1%	2.7%	3.0%	N/A [6]
Detroit retail rate adjustment [4]					
Volume Rate	1.1%	4.0%	2.0%	3.5%	N/A [6]
Meter Charge	2.9%	4.0%	2.1%	3.5%	N/A [6]
Number of wholesale customers [5]	87	87	87	87	87
<b>Sewage Disposal System</b>					
Change in budgeted revenue requirement [1]	0.3%	1.0%	2.2%	1.3%	3.0%
Average annual charge adjustment [2]					
Total regional system	-0.7%	0.1%	0.8%	2.0%	N/A [6]
Wholesale customers	1.8%	1.3%	-0.1%	1.7%	N/A [6]
Local system charge [3]	-4.2%	1.2%	2.5%	2.3%	N/A [6]
Detroit retail rate adjustment [4]					
Volume Rate	1.4%	4.0%	2.0%	2.0%	N/A [6]
Service Charge	7.5%	4.0%	2.1%	2.0%	N/A [6]
Number of wholesale customers [5]	18	18	18	18	18

[1] Percentage changed based on prior year original adopted budget.

[2] Average annual charge adjustment percentages is the required charge adjustment required when calculating revenue with the prior year existing charges, usage projections and any other specific individual contract requirements. For the sewage disposal system, this also includes the bad debt adjustment.

[3] Represents the annual change in the local system charges to the Detroit customer class before the annual credit of \$20.7 million for water and \$5.516 million for sewer. Does not include any lookback charges in the percentage increase/decrease calculation. Does not include any Detroit local system operating costs or charges included in the Detroit retail rate.

[4] This is the rate adjustment the City of Detroit Water and Sewerage Department charges the local customers.

[5] Does not include the City of Detroit. The water system includes one emergency basis contract.

[6] Not applicable as charges have not been approved by the Board for that time period.

Source: Great Lakes Water Authority Financial Services Area and The Foster Group

Revenues and Revenue Requirements					
	Actual 2018	Actual 2019	Budgeted 2020	Budgeted 2021	Budgeted 2022
<b>Water Fund</b>					
<b>Revenues (Budget Basis) [1]</b>					
Wholesale customer charges	\$ 323,117,344	\$ 311,399,136	\$ 315,936,700	\$ 320,904,400	\$ 331,427,200
Charge credits (Flint-KWA)	(3,176,073)	(6,979,503)	(6,652,200)	(6,652,200)	(6,652,200)
Net wholesale charges	319,941,271	304,419,633	\$ 309,284,500	\$ 314,252,200	\$ 324,775,000
Local system charges	15,130,600	20,181,400	21,295,500	22,555,400	23,310,700
Investment income and other operating revenues	4,553,597	11,839,543	9,084,200	4,834,400	3,805,700
<b>Total Revenues</b>	<b>\$ 339,625,468</b>	<b>\$ 336,440,576</b>	<b>\$ 339,664,200</b>	<b>\$ 341,642,000</b>	<b>\$ 351,891,400</b>
<b>Revenue Requirements</b>					
Operation & maintenance expense [2]	\$ 108,530,383	\$ 117,714,203	\$ 131,490,500	\$ 137,127,300	\$ 139,642,500
O&M legacy pension	6,058,800	6,048,000	6,048,000	6,048,000	6,048,000
Debt service requirement	136,288,157	131,178,181	137,557,600	143,189,900	141,151,000
Accelerated legacy pension	6,489,754	6,268,296	6,268,300	6,268,300	6,268,300
WRAP	1,711,200	1,673,400	1,698,300	1,669,400	1,759,500
Lease payment	20,625,000	18,527,800	18,952,000	14,221,700	12,005,600
Lease payment applied to DWSD debt	1,875,000	3,972,200	3,548,000	8,278,300	10,494,400
ER&R	645,700	-	-	-	-
Improvement & extension fund	46,739,700	47,695,000	30,125,500	23,962,500	33,683,700
Operating reserve deposit	1,097,900	-	3,976,000	876,600	838,400
<b>Total Revenue Requirements</b>	<b>\$ 330,061,594</b>	<b>\$ 333,077,080</b>	<b>\$ 339,664,200</b>	<b>\$ 341,642,000</b>	<b>\$ 351,891,400</b>
<b>Revenue Requirement Variance</b>	<b>\$ 9,563,874</b>	<b>\$ 3,363,496</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Sewage Disposal Fund</b>					
<b>Revenues (Budget Basis) [1]</b>					
Wholesale customer charges	\$ 268,978,831	\$ 272,772,460	\$ 272,323,600	\$ 277,011,800	\$ 285,556,700
Local system charges	178,969,200	181,159,300	185,807,300	190,112,100	195,976,400
Industrial waste and surcharges	21,243,383	15,038,824	13,743,600	14,038,200	14,471,200
Investment income and other operating revenues	8,413,727	10,098,593	8,730,800	5,589,200	5,349,400
<b>Total Revenues</b>	<b>\$ 477,605,141</b>	<b>\$ 479,069,177</b>	<b>\$ 480,605,300</b>	<b>\$ 486,751,300</b>	<b>\$ 501,353,700</b>
<b>Revenue Requirements</b>					
Operation & maintenance expense [2]	\$ 176,379,404	\$ 174,019,805	\$ 187,057,200	\$ 184,946,100	\$ 188,934,600
O&M legacy pension	10,809,600	10,824,000	10,824,000	10,824,000	10,824,000
Debt service requirement	204,288,935	210,008,452	215,738,800	209,739,900	215,438,500
Accelerated legacy pension	12,118,599	11,620,692	11,620,700	11,620,700	11,620,700
WRAP	2,391,804	2,374,092	2,403,000	2,415,100	2,506,800
Lease payment	18,333,336	23,085,004	22,467,300	24,242,800	27,500,000
Lease payment applied to DWSD debt	9,166,668	4,415,000	5,032,700	3,257,200	-
ER&R	813,600	-	-	-	-
Improvement & extension fund	22,698,100	22,547,700	25,461,600	39,705,500	43,199,600
Operating reserve deposit	1,733,000	-	-	-	1,329,500
<b>Total Revenue Requirements</b>	<b>\$ 458,733,046</b>	<b>\$ 458,894,745</b>	<b>\$ 480,605,300</b>	<b>\$ 486,751,300</b>	<b>\$ 501,353,700</b>
<b>Revenue Requirement Variance</b>	<b>\$ 18,872,095</b>	<b>\$ 20,174,432</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

[1] Revenues as presented in this schedule are those revenues used to meet the revenue requirements. These include the operating revenues as shown in the CAFR and the investment earnings shown as nonoperating revenue in the CAFR for the Operations and I&E Fund.

[2] Includes Operations Fund operating expenses as reported in CAFR. Does not include I&E Fund operating expenses as those are paid with I&E funds and not current revenue.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Great Lakes Water Authority  
Michigan**

For the Biennium Beginning

**July 1, 2019**

*Christopher P. Morrell*

Executive Director

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Great Lakes Water Authority, Michigan, for its Biennial Budget for the biennium beginning July 1, 2019. In order to receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as a financial plan, as an operations guide, and as a communications device.

This award is valid for a period of two years only. We believe our current budget continues to conform to program requirements, and we are submitting it to GFOA to determine its eligibility for another award. This is the Authority's 1st year of receiving the award.

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# Section 1 Overview



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***We Are One Water***

The Great Lakes Water Authority (GLWA) provides nearly 40 percent of Michigan's population with water of unquestionable quality, as well as effective and efficient wastewater services to nearly 30 percent of the state. GLWA is all about the movement of water from the environment, to our customers, and back to the environment. We ensure our member partner communities get the highest quality water using treatment standards that are stricter than state or federal regulatory requirements. Once the water has been used, we run it through our treatment process again before returning it to the environment – often cleaner than when we received it. Working hand-in-hand with our member partners, we provide water and wastewater services of the highest quality. Together, we are one water.

***Our Mission***

To exceed our customers' expectations by utilizing best practices in the treatment and transmission of water and wastewater, while promoting healthy communities and economic growth.

***Our Vision***

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

***Our Members***

The collaborative relationship we share with our members makes up the bedrock of GLWA's operating philosophy. As we work together for the greater good of the region, GLWA coordinates projects for civic improvement and provides members with educational resources. Our One Water Partnership Agreement outlines the mutual commitment between GLWA and those we serve, including the One Water Mission: To collaboratively ensure a One Water system approach to our regional water and wastewater system that will be economically, socially, and environmentally responsible and sustainable.

Our members include GLWA team members, board members, water and wastewater partners, associated stakeholders, elected officials, consultants and regulatory agencies. GLWA has a dedicated Member Outreach Program that collaborates with its members on water and wastewater activities. Work groups are used to involve members in technical service and financial discussions that support decision-making for GLWA's water and wastewater systems. GLWA has designated team members working within the Member Outreach Program and includes a contracted third-party facilitator responsible for ensuring and sustaining the rules of collaboration and furthering the transparent exchange of information between GLWA and its members.

***History***

GLWA began operations on January 1, 2016 and is the result of a monumental collaboration among regional leaders. Working to meet the needs of sustainable and affordable infrastructure, a memorandum of understanding (MOU) was agreed upon on September 9, 2014. Subsequently, GLWA was incorporated by the City of Detroit (City) and the counties of Macomb, Oakland and Wayne on November 26, 2014 pursuant to Act 233, Public Acts of Michigan, 1955, as amended. At the time of GLWA's incorporation, the City, through its Detroit Water and Sewerage Department (DWSD), was providing water supply services within and outside of the City through a water supply system and drainage and sewage disposal services within and outside of the City through a sewage disposal system.

On June 12, 2015, the City and GLWA executed the Regional Water Supply and Sewerage Disposal System Leases, transferring the regional water and sewage disposal facilities from the COD to GLWA for an initial term of 40 years. In addition, the City and GLWA entered into a Water and Sewer Services Agreement where GLWA provides water and sewer services to the City; the City then supplies these services to Detroit retail customers via the DWSD. The agreements required the satisfaction of several conditions before becoming effective. By January 1, 2016 (the Effective Date), those conditions were met and GLWA, under the terms of the Regional System Leases, became responsible for the assets, all bonded indebtedness, and operations for the regional water and wastewater systems.

GLWA leases the regional water and sewage disposal facilities from the City for an allocation of \$50 million per year to fund capital improvements for the City's retail system and/or debt obligations. GLWA also funds a Water Residential Assistance Program (WRAP) to assist low-income residential households in enrolled member partner communities.

### ***Board of Directors***

Beverly Walker-Griffea, PH.D..... GLWA Board Chairman; Representative for the State of Michigan  
John J. Zech..... GLWA Board Vice Chair; Representative for Wayne County  
Jaye Quadrozzi..... GLWA Board Secretary; Representative for Oakland County  
Brian Baker..... GLWA Board Representative for Macomb County  
Gary A. Brown..... GLWA Board Representative for the City of Detroit  
Freman Hendrix..... GLWA Board Representative for the City of Detroit

### ***Executive Leadership Team***

Sue F. McCormick..... Chief Executive Officer  
William M. Wolfson..... Chief Administrative and Compliance Officer  
Nicolette N. Bateson, CPA..... Chief Financial Officer/Treasurer - Financial Services  
Cheryl D. Porter..... Chief Operating Officer – Water Operating Services  
Navid Mehram, PE..... Chief Operating Officer – Wastewater Operating Services  
Suzanne R. Coffey, PE..... Chief Planning Officer  
Jeffrey E. Small..... Chief Information Officer  
Terri Tabor Conerway..... Chief Organizational Development Officer  
W. Barnett Jones..... Chief Security and Integrity Officer  
Randal M. Brown..... General Counsel  
Michelle A. Zdrodowski..... Chief Public Affairs Officer

## Organization

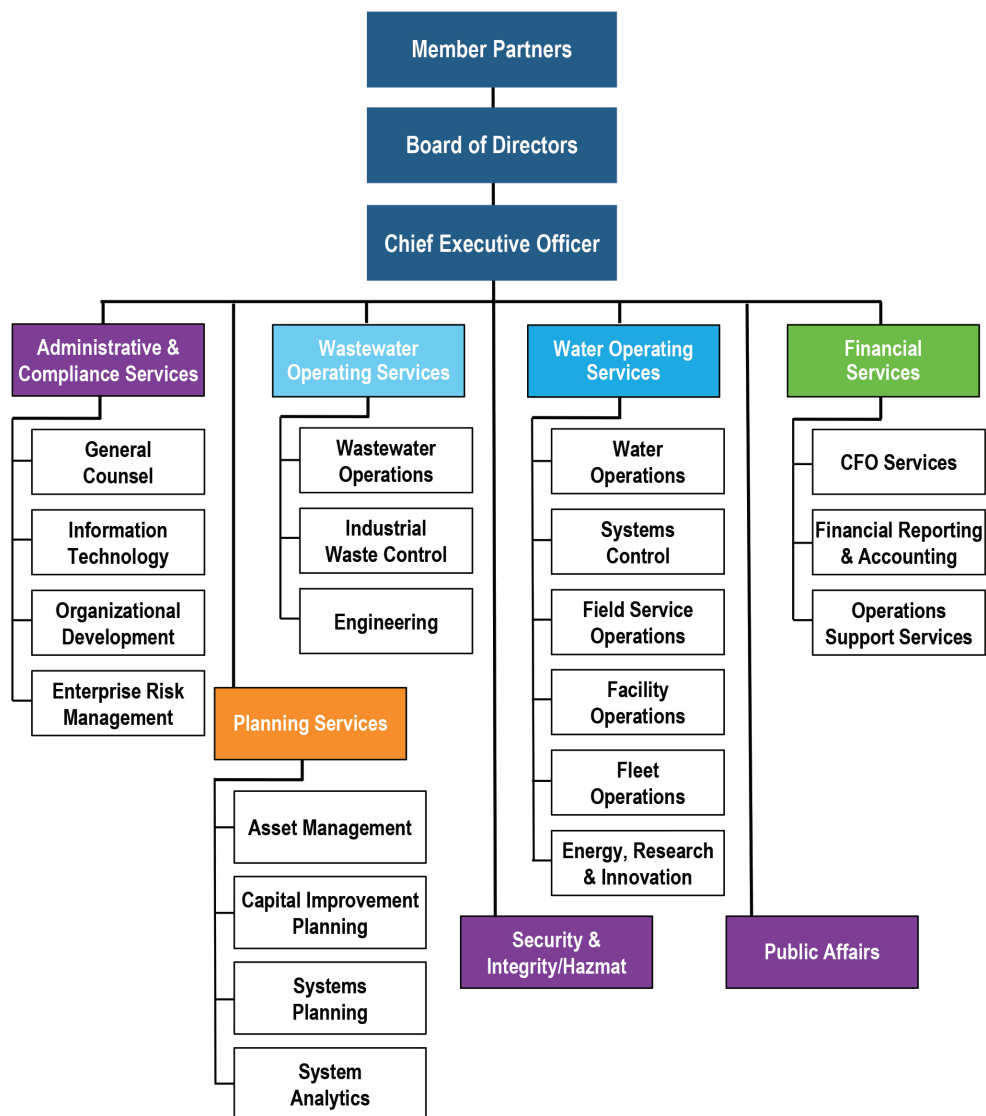
GLWA is organized into six intersecting operating areas. Within each area, there are functional groups. Together, these groups work in a cross-functional manner to achieve the organization's mission. Collaboration is our mode of operation. As One Team we succeed together.







## Organizational Line of Reporting Chart



***Our Water System***

The Authority's water system is one of the largest in the United States, both in terms of water produced and population served. The water system currently serves an area of 1,698 square miles located in eight Michigan counties and an estimated population of approximately 3.8 million or approximately 38% of Michigan's population. Suburban wholesale customers comprise approximately 82% of the population in the service area and the DWSD retail water customers comprise the remainder.

The water supply system consists of three intake facilities, five water treatment plants, 19 booster pumping stations, 32 water storage reservoirs and a conveyance system with over 816 miles of transmission mains. Water is drawn from Lake Huron and the Great Lakes tributary, the Detroit River. Recognizing that quality begins at the source, GLWA invests time and resources into the continued protection of our source water. We work with world-class universities and foundations to ensure a level of water quality that not only meets but surpasses all federal and state standards. And a continued focus on environmental impact has helped GLWA become a leader on environmental practices and compliance in the Midwest.

***Our Wastewater System***

The Authority's sewer system is one of the largest in the United States, both in terms of treatment capacity and population served. The sewer system currently serves an area of 944 square miles located in three Michigan counties and an estimated population of approximately 2.8 million or approximately 28% of Michigan's population. Suburban customers comprise approximately 76% of the population in the service area and the DWSD retail sewer customers comprise the remainder.

The wastewater system consists of one of the largest single-site wastewater treatment plants in the world, three major interceptors, five pump stations, eight Combined Sewer Overflow (CSO) Control Facilities, including five retention treatment basins and three flow-through type facilities, and a conveyance system with 195 miles of trunk sewers and interceptors.

Our wastewater treatment plant is used as a benchmark for other plants across the Midwest. In a giant step toward becoming a Utility of the Future, GLWA is transitioning its Wastewater Treatment Plant (WWTP) to a Water Resource Recovery Facility (WRRF), that will ultimately operate on renewable energy. At the end of this process, the WRRF will be energy neutral, meaning the facility will create enough energy to power its own operations, and perhaps even create excess energy that can be fed into the power grid. Additionally, a new Biosolids Dryer Facility (BFD) has the ability to

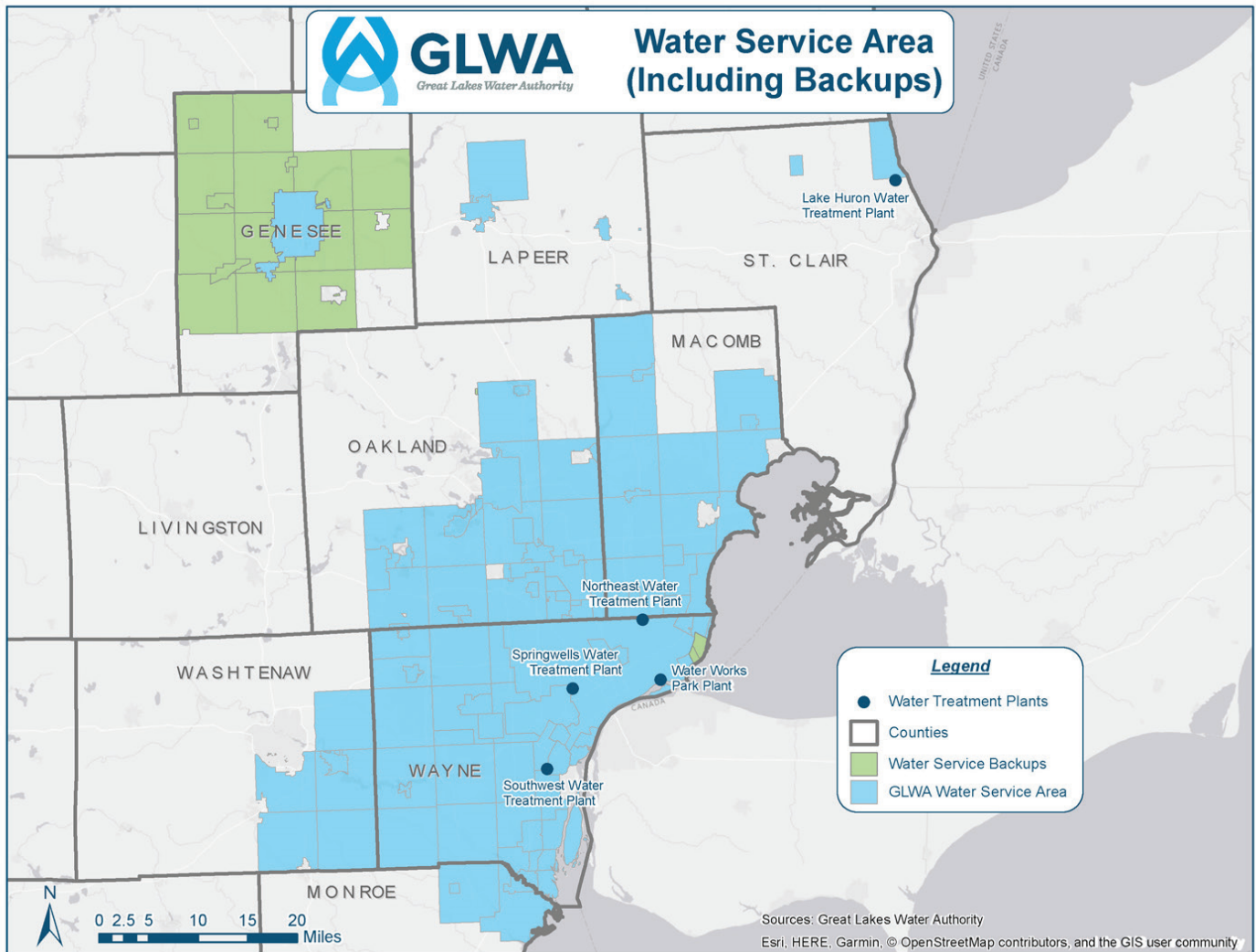
turn roughly one billion gallons of biosolids into environmentally friendly fertilizer. This alternative to burning or dumping in a landfill will significantly decrease emissions year-over-year.

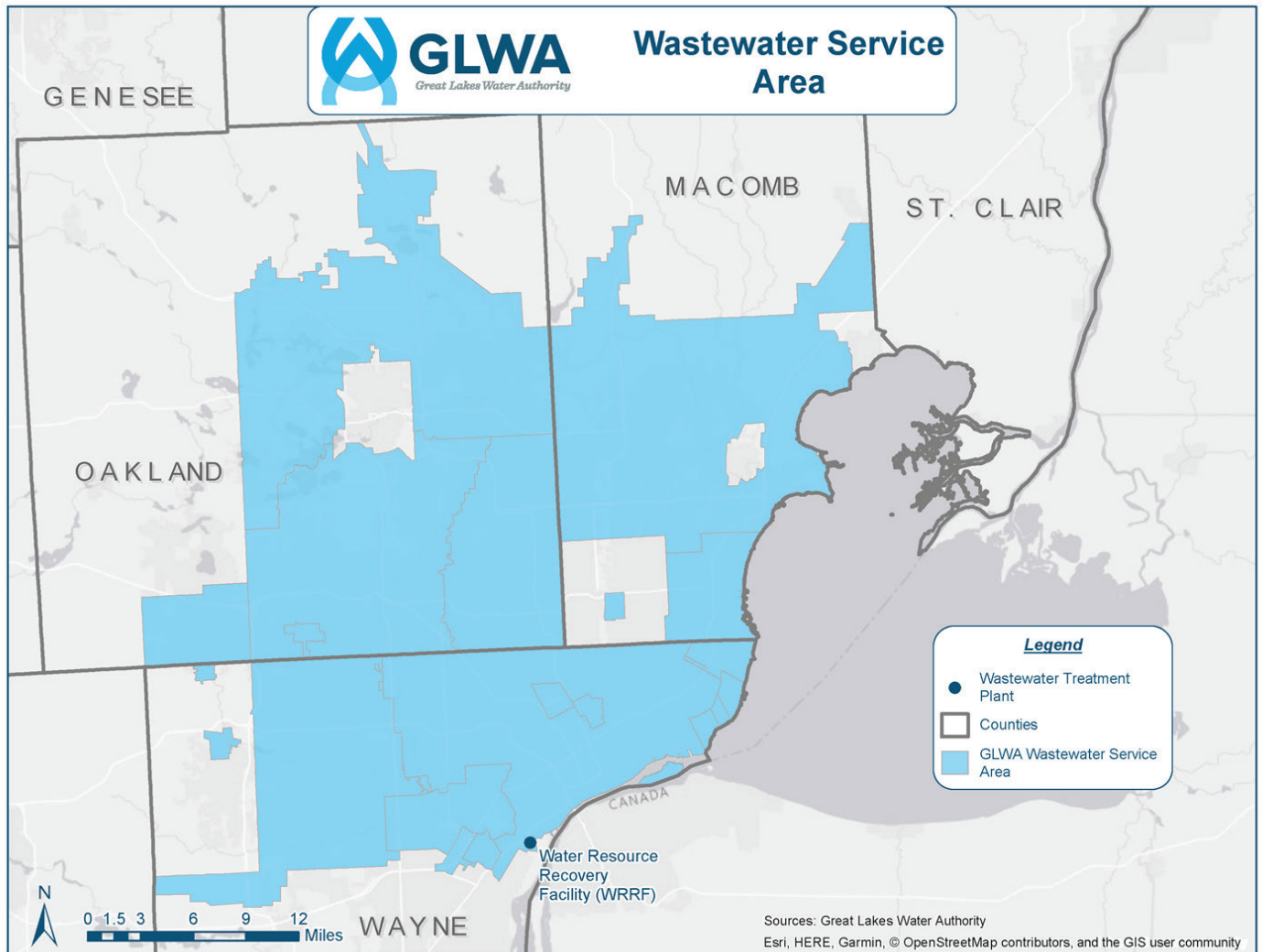
### ***Facilities***

We are continually updating our facilities to optimize water and wastewater treatment for the benefit of our member partners and the environment. To improve and optimize system efficiency, we invest significant time into maintaining and improving our facilities. This includes, but is not limited to, performing regular condition assessments and installing greener technology to become a Utility of the Future.

### ***Service Area Maps***

The following two pages contain the service area maps for the water system and wastewater system.







***Community Profile***

The Authority services many communities in southeastern Michigan. Southeastern Michigan's largest city is Detroit. The Detroit retail customer class is collectively the Authority's largest customer. The City of Detroit's Water & Sewage Department owns and operates the local water and sewer systems and serves as agent for the Authority for setting retail rates, billing, collecting and enforcing the collection of amounts due from the Detroit retail customer class. That relationship is further defined by the Water and Sewer Services Agreement, consistent with the provisions of the Regional System Leases and related agreements. The Authority may revoke or terminate its appointment of the City as agent for the Authority if the City fails to perform its duties, obligations or administrative functions in accordance with the Water and Sewer Services Agreement (WSSA).

The water system provides services to all or a portion of eight Michigan counties: Oakland, Macomb, Wayne, Lapeer, Genesee, Washtenaw, St. Clair and Monroe Counties. The Authority has 88 member partners across 112 communities. The 88 member partners are comprised of the City of Detroit and 87 wholesale customers. Model contracts are in effect for 82 of the 87 current wholesale customers. Of the 5 current wholesale customers not under model contracts, 4 are served under the former contract structure, and 1 is served under an emergency service contract. The 82 customers under model contracts comprise almost 96% of total billed revenues from the wholesale customers in FY 2019.

The sewer system provides services in three Michigan counties: Oakland, Macomb and Wayne Counties. The Authority has 19 member partners across 79 communities. The 19 member partners are comprised of the City of Detroit and 18 wholesale service contracts with municipal and other public entity customers. These service areas are part of the Detroit-Warren-Dearborn Metropolitan Statistical Area (the "Detroit MSA").

***Employment***

The Detroit MSA's economy is highly susceptible to swings in the national economy due to its high concentration of employment in the durable goods industries, particularly the automotive industry. Over the past two decades, all three major automotive companies have experienced severe financial problems which have adversely affected the economy of the Detroit area.

The following table sets forth certain information on total employment by industry group for the Detroit MSA and that of the United States. The region has in the past consistently maintained a greater percentage of persons employed in the manufacturing sector than the United States as whole. This reflects the area's dependence on the automotive industry.

### Annual Employment by Place of Work (Non-Agricultural)

	Detroit-Warren-Dearborn MSA							
	2015		2016		2017		2018	
	(000's)	%	(000's)	%	(000's)	%	(000's)	%
<b>Industry Group:</b>								
Natural Resources, Mining, & Construction	70	3.6%	70	3.5%	77	3.8%	78	3.8%
Manufacturing	240	12.3%	242	12.1%	257	12.6%	263	12.9%
Trade, Transportation & Utilities	362	18.5%	364	18.2%	370	18.2%	374	18.4%
Information	27	1.4%	28	1.4%	28	1.4%	27	1.3%
Financial Activities	108	5.6%	114	5.7%	117	5.8%	116	5.7%
Professional and Business Services	392	20.0%	407	20.3%	399	19.6%	400	19.6%
Education and Health Services	302	15.4%	312	15.6%	314	15.4%	316	15.5%
Leisure & Hospitality	196	10.0%	207	10.3%	208	10.2%	202	9.9%
Other Services	76	3.9%	78	3.9%	77	3.8%	76	3.7%
Government	<u>184</u>	<u>9.4%</u>	<u>182</u>	<u>9.1%</u>	<u>188</u>	<u>9.2%</u>	<u>186</u>	<u>9.1%</u>
Total	<u>1,962</u>	<u>100.0%</u>	<u>2,004</u>	<u>100.0%</u>	<u>2,035</u>	<u>100.0%</u>	<u>2,038</u>	<u>100.0%</u>

	U.S.							
	2015		2016		2017		2018	
	(000's)	%	(000's)	%	(000's)	%	(000's)	%
<b>Industry Group:</b>								
Natural Resources & Mining	825	0.6%	692	0.5%	684	0.5%	754	0.5%
Construction	6,621	4.6%	6,850	4.7%	7,157	4.8%	7,534	5.0%
Manufacturing	12,407	8.7%	12,374	8.5%	12,508	8.5%	12,772	8.5%
Trade, Transportation & Utilities	26,955	18.9%	27,375	18.8%	27,498	18.6%	27,578	18.4%
Information	2,755	1.9%	2,802	1.9%	2,809	1.9%	2,815	1.9%
Financial Activities	8,168	5.7%	8,337	5.7%	8,510	5.8%	8,599	5.7%
Professional and Business Services	19,797	13.9%	20,330	14.0%	20,600	14.0%	21,193	14.1%
Education and Health Services	21,829	15.3%	22,484	15.5%	22,966	15.6%	23,696	15.8%
Leisure & Hospitality	15,742	11.0%	16,186	11.1%	16,759	11.4%	16,546	11.0%
Other Services	5,687	4.0%	5,761	4.0%	5,849	4.0%	5,846	3.9%
Government	<u>21,931</u>	<u>15.4%</u>	<u>22,048</u>	<u>15.2%</u>	<u>22,238</u>	<u>15.1%</u>	<u>22,460</u>	<u>15.0%</u>
Total	<u>142,717</u>	<u>100.0%</u>	<u>145,239</u>	<u>100.0%</u>	<u>147,578</u>	<u>100.0%</u>	<u>149,793</u>	<u>100.0%</u>

NOTE: Totals may not add due to rounding.

SOURCE: Michigan Department of Technology, Management and Budget, Labor Market Information; U.S. Department of Labor, Bureau of Labor Statistics.

### ***Demographics-Population, Unemployment, per Capita Income, Authority's Debt Service***

The following table provides the service area demographics for the last ten years.

#### **Service Area Demographics**

Last Ten Years

<u>Year</u>	<u>Total Population (1)</u>	<u>Unemployment (2)</u>	<u>Per Capita Income (3 &amp; 4)</u>	<u>Total Debt Service (5)</u>	<u>Debt Per Capita</u>	<u>Debt Service as a Percentage of Income</u>
<b>Water Fund</b>						
2019	3,800,000	4.5%	\$53,748	\$162,377,261	\$42.73	0.08%
2018	3,800,000	4.3%	\$51,493	\$172,549,890	\$45.41	0.09%
2017	3,800,000	4.6%	\$50,863	\$175,010,012	\$46.06	0.09%
2016 *	3,800,000	5.3%	\$48,692	\$171,138,525	\$45.04	0.09%
2015 *	3,800,000	5.9%	\$46,894	\$178,923,900	\$47.09	0.10%
2014 *	3,800,000	8.1%	\$44,718	\$182,464,900	\$48.02	0.11%
2013 *	3,800,000	9.7%	\$42,555	\$172,458,800	\$45.38	0.11%
2012 *	3,800,000	10.1%	\$42,168	\$153,524,200	\$40.40	0.10%
2011 *	3,800,000	11.4%	\$40,607	\$164,435,900	\$43.27	0.11%
2010 *	3,800,000	13.9%	\$37,837	\$157,590,500	\$41.47	0.11%
<b>Sewage Disposal Fund</b>						
2019	2,800,000	4.5%	\$53,748	\$235,381,235	\$84.06	0.16%
2018	2,800,000	4.3%	\$51,493	\$232,491,813	\$83.03	0.16%
2017	2,800,000	4.6%	\$50,863	\$234,554,814	\$83.77	0.16%
2016 *	2,800,000	5.3%	\$48,692	\$228,570,571	\$81.63	0.17%
2015 *	2,807,000	5.9%	\$46,894	\$232,612,800	\$82.87	0.18%
2014 *	2,807,000	8.1%	\$44,718	\$229,611,100	\$81.80	0.18%
2013 *	2,807,000	9.7%	\$42,555	\$225,222,900	\$80.24	0.19%
2012 *	2,807,000	10.1%	\$42,168	\$203,092,300	\$72.35	0.17%
2011 *	2,807,000	11.4%	\$40,607	\$209,063,900	\$74.48	0.18%
2010 *	2,807,000	13.9%	\$37,837	\$200,985,100	\$71.60	0.19%

(1) Source: Estimated based on data from Southeast Michigan Council of Governments (SEMCOG).

(2) Source: Bureau of Labor Statistics Detroit-Warren-Dearborn MSA Annual Average (For 2019 the August rate was used). The Detroit-Warren-Dearborn Metropolitan Statistical Area (MSA) is comprised of six counties: Wayne, Oakland, Macomb, Livingston, Lapeer and St. Clair. This represents the majority of the service area.

(3) Source: FRED Economic Data, St. Louis Fed (2010-2018)

(4) Source: Michigan State University Center for Economic Analysis (2019)

(5) Debt service is based on set aside debt service requirements for the fiscal year which includes the subsequent year July 1st debt payment.

\* GLWA assumed operations on January 1, 2016. The information in this table from 2009-2015 is based on operations under the City of Detroit Water and Sewerage Department (DWSD). Data for 2016 includes six months of operation under DWSD and six months of operation under GLWA.

### ***Largest Customers***

The following tables provided information about the ten largest customers for the water system and sewage disposal system.

#### **Ten Largest Wholesale Water Customers**

	<b>2018</b>	<b>2019</b>
<b>Total Billed Revenue</b>		
North Oakland County Water Authority	\$ 23,365,866	\$ 23,464,096
Southeast Oakland County Water Authority	23,118,160	23,311,743
Sterling Heights	15,571,146	14,644,368
Livonia	13,669,376	14,001,058
Shelby Township	13,554,398	13,719,053
Troy	13,842,135	13,700,093
Flint	12,235,483	11,604,504
Macomb Township	11,167,739	11,063,225
West Bloomfield Township	-	10,733,617
Warren	-	10,648,162
Canton Township	13,334,615	-
Ypsilanti Community Utilities Authority	11,038,134	-
<b>Total Billed Revenue</b>	<b>\$ 150,897,051</b>	<b>\$ 146,889,919</b>
<b>Total Operating Revenues</b>	<b>\$ 338,312,144</b>	<b>\$ 331,601,876</b>
<b>% of Total Operating Revenues</b>	<b>44.60%</b>	<b>44.30%</b>



### Ten Largest Wholesale Sewer Customers

	2018	2019
<b>Total Billed Revenue</b>		
Oakland Macomb Interceptor Drainage District	\$ 72,816,000	\$ 77,533,200
Wayne County - Rouge Valley	55,022,400	53,761,200
Oakland County-George W Kuhn Drainage	45,751,200	44,972,400
Evergreen Farmington	33,733,200	34,578,000
NE Wayne County	24,637,200	24,672,000
Dearborn	19,628,400	19,372,800
Highland Park	5,642,400	5,614,800
Hamtramck	3,958,800	3,962,400
Grosse Pointe Farms	2,696,400	2,727,600
Grosse Pointe Park	1,740,000	1,801,200
Total Billed Revenue	<u>\$ 265,626,000</u>	<u>\$ 268,995,600</u>
Total Operating Revenues	<u>\$ 473,582,559</u>	<u>\$ 469,476,907</u>
% of Total Operating Revenues	<u>56.09%</u>	<u>57.30%</u>

### Housing Characteristics

The following table shows certain housing characteristics of the Detroit MSA in comparison to the State and the United States.

#### Housing Characteristics - Fourth Quarter 2019 Statistics

	<u>Detroit MSA</u>	<u>State of Michigan</u>	<u>United States</u>
Homeownership Rates	73.1%	74.5%	65.1%
Rental Vacancy	5.1%	6.2%	6.4%
Homeownership Vacancy	1.0%	1.1%	1.4%

SOURCE: U.S. Department of Commerce, Bureau of Census.

### ***Largest Employers***

The table below provides information about the largest employers in the service area.

#### **Largest Employers**

Current Year and 5 years Ago

Employer	Type of Business	Fiscal Year 2019		Fiscal Year 2014	
		Full-time Employees	Rank	Full-time Employees	Rank
Ford Motor Co.	Automobile Manufacturer	46,000	1	42,750	1
FCA US LLC/Chrysler Group LLC	Automobile Manufacturer	34,452	3	30,580	2
General Motors Co.	Automobile Manufacturer	32,770	4	30,570	3
University of Michigan	Public University and Health System	35,350	2	29,855	4
Beaumont Health	Health Care System	27,492	5	25,404	5
U.S. Government	Federal Government	18,893	7	19,010	6
Henry Ford Health System	Health Care System	26,929	6	17,949	7
Trinity Health	Health Care System	16,403	9	14,056	8
Detroit Medical Center	Health Care System	n/a	n/a	11,869	9
U.S. Postal Service	Postal Service	n/a	n/a	11,600	10
Rock Ventures	Umbrella Entity managing a portfolio of companies in investment and real estate	17,887	8	n/a	n/a
Ascension Michigan	Health Care System	12,616	10	n/a	n/a

Source: Crain's Detroit Business, Largest Southeast Michigan Employers - Ranked by full-time employees as of July 2019 and January 2014.

### ***Detroit/Wayne County Port Authority***

The Detroit/Wayne County Port Authority is a public agency responsible for promoting trade and freight transportation through the Port of Detroit, (the "Port") which provides direct water service to world markets via the Great Lakes/St. Lawrence Seaway. The Port has five privately-owned and operated full-service terminals, a liquid bulk terminal and bulk facility, and a single dock facility with capacity for 14 oceangoing vessels. In addition, more than 30 industries located on the Detroit and Rouge Rivers have their own port facilities. A variety of ship repair services are available. The Detroit area, which is the largest foreign trade zone in the United States, provides financial advantages related to federal taxes and customs duties at subzones throughout the City and region. The Port is a principal port of entry for trade with Canada by means of bridge, vehicular tunnel, rail tunnel and barge service. Steel and scrap steel are the principal export products of the Port, handled for the three local steel mills. General cargo constitutes a minor portion of total tonnage due to the lack of regularly scheduled shipping service.

***Transportation Network***

Five major rail lines provide direct service to the Detroit area by railroad companies such as Conrail, Norfolk Southern, Grand Trunk Western, Canadian Pacific and CSX Transportation. Major cargo handled by the rail lines in the Detroit area include automobiles, auto parts, steel, chemicals and food products.

Air transportation service is provided by the following airports:

- Coleman A. Young International Airport (DET), which has general aviation and cargo services
- Willow Run Airport (YIP), which is an important corporate, cargo and general aviation facility
- Detroit Metropolitan Wayne County Airport (DTW), the nation's 18<sup>th</sup> largest airport (by number of aircraft operations as of 2018) and 19<sup>th</sup> busiest airport (by number of enplanements as of 2018)

The Detroit Metropolitan Wayne County Airport had scheduled nonstop passenger service to 140 plus destinations with more than 35.2 million annual passenger deplanements and enplanements as of 2018. Delta Airlines is the predominant airline servicing the DTW.

The Detroit area has an extensive toll-free highway system, which includes the I-94, I-74, I-96 and I-696 interstate highways and Canadian Highway 401, which provides one-day access, based on a 500-mile day, to 48% (by population) of the U.S. market and to the Province of Ontario, Canada.

## Budget Process

The Authority's budget consists of six funds. For Financial Reporting the O&M, I&E and Construction funds are combined and reported under the respective Water Fund and Sewage Disposal Fund which are the major funds in the Authority's CAFR. Combining schedules are provided in the supplementary information of the CAFR. The terms wastewater and sewer are also used when referring to the Sewage Disposal Fund throughout this document.

- *Water Operations Fund (O&M)* – All water revenues are credited to this fund. All expenses for the operations and maintenance of the water system are paid from this fund. The total Water O&M funds budgeted are detailed in Schedule 2 of the Core Financial Plan Schedules.
- *Sewer Operations Fund (O&M)* – All sewer revenues are credited to this fund. All expenses for the operations and maintenance of the wastewater system are paid from this fund. The total Sewer O&M funds budgeted are detailed in Schedule 2 of the Core Financial Plan Schedules.
- *Water Improvement & Extension Fund (I&E)* – The budget includes amounts from water charges revenues that are transferred to the I&E fund to reduce debt financing. Management may determine other water funds that are available for this used besides those that are budgeted. This fund is used for water system capital improvements. The budgeted transfer from water charges revenue to the Water I&E fund is included in Schedule 1A of the Core Financial Plan Schedules. The budgeted activity of the Water I&E Fund is provided in Schedule 5A of the Core Financial Plan Schedules.
- *Sewer Improvement & Extension Fund (I&E)* – The budget includes amounts from sewage disposal charges revenues that are transferred to the I&E fund to reduce debt financing. Management may determine other sewage disposal funds that are available for this used besides those that are budgeted. This fund is used for wastewater system capital improvements. The budgeted transfer from sewage disposal charges revenue to the Sewer I&E fund is included in Schedule 1B of the Core Financial Plan Schedules. The budgeted activity of the Sewer I&E Fund is provided in Schedule 5B of the Core Financial Plan Schedules.
- *Water Construction Fund* – This fund is used for the proceeds of water debt obligations and investment earnings thereon. Funds are used to pay for water system capital improvements in accordance with the debt obligations. The budgeted activity of the Water Construction Fund is provided in Schedule 5C of the Core Financial Plan Schedules.
- *Sewer Construction Fund* – This fund is used for the proceeds of sewer debt obligations and investment earnings thereon. Funds are used to pay for the wastewater system capital improvements in accordance with the debt obligations. The budgeted activity of the Sewer Construction Fund is provided in Schedule 5D of the Core Financial Plan Schedules.

For the preparation of the fiscal years 2021 and 2022 biennial budget and five-year (fiscal years 2021 through 2025) financial plan, the individual budgets for Operations and Maintenance (O&M) expenditures as well as Capital Outlay expenditures (funded through O&M and I&E) were submitted by budget managers which were utilized in the preparation of the overall financial plan for the

Authority. In July 2019 the budget managers were given the goal of maintaining no more than a 2% increase in the O&M budget. Budget managers were told if there were specific costs that were needed that would put the increase over 2%, that they were to include those in the budget requests. Budget requests for the next five years were due to be entered into the accounting software by August 30, 2019. During the months of September and October 2019 the budgets for each cost center were reviewed and finalized by the Financial Planning & Analysis (FP&A) team and management. The preliminary budget was presented to the Board during the month of January 2020. A final budget was submitted to the board during a Public Hearing on February 26, 2020 and final approval was received on March 11, 2020. Upon receiving approval from the GLWA Board to adopt the budget, the FP&A team and other members of Financial Services began work to publish the approved budget and the supporting schedules from which the budget was created. The effective date of the budget is July 1, 2020.

The 2021 Capital Improvement Plan development and approval process began in the summer of 2019. At that time, an authority-wide request for new and updated Business Case Evaluation (BCE) documents were made for projects and programs within all business areas. BCE's were received from project managers in August 2019. In September 2019, the Water and Wastewater Review Committees prioritized the newly submitted CIP projects. Project information related to new and substantially modified projects, as well as overall summary financial information, was reviewed by the Executive Leadership Team (ELT) in October 2019. With projects vetted internally, a first draft CIP was created and presented to the Asset Management & CIP Member Partner Outreach Work Group, the GLWA Capital Improvement Planning Committee and the Authority's Member Partner communities. Based upon member partner and Board feedback received in November 2019, the CIP was modified, and a second version of the plan was released in December 2019 with roll-out to member partners and the Board through similar avenues. On January 8, 2020, the CIP was presented to the full Board of Directors and the final approval from this body was received on February 26, 2020. Once approved, the Capital Improvement Planning group distributed and published the final CIP plan which is effective July 1, 2020.

### ***Budget Amendments***

The Authority's Board of Directors adopted a two-year budget on March 11, 2020 for the fiscal years 2021 and 2022. See Board Resolution 2020-082. By this resolution the total annual revenue requirements for the Regional Water System and the Regional Sewage Disposal System were established. The resolution also established the total operations and maintenance budget, the total debt service requirements and the total capital expenditures for both the Regional Water System and

the Regional Sewage Disposal System. The legal level of budgetary control is the bottom line based on each of the budgeted revenue requirements (components of the revenue requirements are referred to as appropriation categories) and the budget shall not be increased or decreased without prior Board authorization. The Board is provided detail schedules which support the totals in the resolution. The CFO may exercise discretion to modify the detail budget line items within each approved budget requirement which would result in no change to the total budgeted revenue requirements. In June 2020 the Authority's Board of Directors approved a formalized budget amendment policy which states that in the event that there is a proposed amendment of the budget among the appropriation categories, the matter is brought to the Audit Committee for review and consideration of a recommendation to the Board of Directors for their consideration for approval. Board budget amendments should be brought to the Audit Committee when identified and no less than quarterly.

### ***Budget Basis and Revenue Requirements***

The Budget is prepared on a modified cash basis budget. The revenue requirements are determined based upon the cash needed to meet the following expenditures as required by the Master Bond Ordinance:

- Operation & Maintenance (O&M) expenses based on an accrual basis
- O&M Legacy Pension Allocation and Accelerated Legacy Pension Allocation based on a cash basis
- Debt Service Allocation based on a cash set aside basis to provide the cash for the debt payments on the due dates
- Water Residential Assistance Program based on a percentage of revenue
- Lease Payments based on a cash basis
- Extraordinary Repair & Replacement Reserve Fund (ER&R) allocation on a cash basis if the ER&R balance is below the requirement
- Regional System Improvement & Extension Fund Allocation on a cash basis

Besides the revenue requirements as defined in the MBO, the budget also includes a line item for an Operating Reserve Deposit. This line item represents planned additional working capital for the O&M account.

Once the revenue requirements amount is determined, customer charges are calculated to meet the revenue requirements. Water charges are based on a 60% fixed cost recovery and 40% volume charges. Sewer charges are based on a 100% fixed cost recovery based on each customer's historical use of the system.



### ***Accounting Basis***

The Authority's financial statements are prepared in conformity with generally accepted accounting principles (GAAP) as applied to government units. The Authority has a water enterprise fund and a sewerage disposal enterprise fund, both of which are presented as major funds. The Authority maintains its records on the accrual basis of accounting to conform to GAAP. Revenues from operations, investments and other sources are recorded when earned. Expenses (including depreciation) of providing services to the public are recorded when incurred.

The Authority provides a crosswalk in the CAFR which shows the differences between the budget basis and GAAP. The key areas of reconciliation include the following:

- O&M Legacy Pension and Accelerated Legacy Pension to the City of Detroit General Employees Retirement System defined benefit plan. Annual contributions are an expense for the budget basis while the accrual basis financial report reflects the current year payment as a deferred outflow.
- Debt Service (principal and interest) is an expense for the budget basis while the accrual basis financial report treats interest as an expense and principal payments as a reduction of a liability.
- Lease payments (principal and interest) are an expense for the budget basis while the accrual basis financial report treats interest as an expense and principal payments as a reduction of a liability.
- Contributions to the Regional System Improvement & Extension Fund and the Extraordinary Repair & Replacement Reserve Fund are an expense for the budget basis while the accrual basis financial report treats this activity as an increase in assets.
- Depreciation and amortization are not components of the budget basis while the accrual basis financial report treats these as an expense.

### ***Budget Calendar***

The Great Lakes Water Authority (GLWA) Financial Planning Cycle includes:

1. FY 2021 and 2022 Biennial Budget
2. FY 2021 through FY 2025 Five-Year Financial Plan
3. FY 2021 through FY 2025 Five-Year Capital Improvement Plan
4. FY 2021 Schedule of Revenues and Charges

The schedule below reflects planning for the comprehensive GLWA Financial Plan.

Date	Activity
Friday, August 30, 2019	Internal – Deadline for Cost Center Budget Request

Thursday, October 17, 2019	<b>Charges Rollout Meeting #1 – Water &amp; Sewer Capital Improvement Plan Update</b>
Thursday, November 21, 2019	<b>Charges Rollout Meeting #2 – Units of Service Update</b>
Sunday, December 1, 2019	GLWA and DWSD (City) - Exchange shared services to be provided and related costs (Shared Services Agreement 5.4)
Thursday, December 19, 2019	GLWA Audit Committee Meeting – Revenue Requirement Status Report
Wednesday, January 1, 2020	DWSD – Preliminary two-year budget forecast Including key assumptions and impact statement due to GLWA (Water and Sewer Services Agreement 5.3a)
Wednesday, January 8, 2020	GLWA Board Workshop – Review of Proposed FY 2021 and 2022 Biennial Budget (Revenue Requirement) and Five-Year Financial Plan
Thursday, January 9, 2020	<b>Charges Rollout Meeting #3 – Proposed FY 2021 Revenue Requirement</b>
Friday, January 17, 2020 (rescheduled) January 24, 2020	GLWA Audit Committee Meeting – Regular Meeting
Wednesday, January 22, 2020	GLWA Board Meeting – Status Report FY 2021 Service Charges, FY 2021 and 2022 Biennial Budget (Revenue Requirement) and Five-Year Financial Plan
Thursday, January 23, 2020	<b>Charges Rollout Meeting #4 – Proposed FY 2021 Service Charges</b>
Friday, January 24, 2020	Publish notice of the hearing by publication in a newspaper of general circulation <b>(B)</b>
Friday, January 24, 2020	Mail Notice to Member Partners of Public Hearing to be held on February 26, 2020 (minimum 30 days prior to Act 279 Public Hearing) <b>(D)</b>
Saturday, February 1, 2020	DWSD – Current capital improvement plan due to GLWA (Water and Sewer Services Agreement 5.3d(i))
Wednesday, February 26, 2020	<b>GLWA Board Meeting – Public Hearing FY 2021 &amp; FY 2022 Biennial Budget (A)</b>
Wednesday, February 26, 2020	<b>GLWA Board Meeting – Public Hearing FY 2021 Schedule of Revenues and Charges (Act 279, minimum 120 days before effective date) (C)</b>
Wednesday, February 26, 2020	GLWA Board Meeting – Proposed Approval of the FY 2021 & FY 2022 Biennial Budget (A)
Wednesday, February 26, 2019	GLWA Board Meeting – Proposed Approval of FY 2021–2025 Capital Improvement Plan
Wednesday, February 26, 2020	GLWA Board Meeting – Public Hearing & Proposed Approval of FY 2021 Schedule of Revenues and Charges (Act 279, minimum 120 days before effective date) (C)
Monday, March 2, 2020	Mail Notice to Member Partners of Approved Charges

Monday, March 23, 2020	DWSD – Local system adopted biennial budget due to GLWA (Water and Sewer Services Agreement 5.3b)
Friday, May 1, 2020	DWSD – Local system provides direction to GLWA on how to apply lease payment (Water and Sewer Services Agreement 4.3)
Wednesday, July 1, 2020	GLWA – Effective date of FY 2020 and 2021 Biennial Budget, FY 2020 Schedule of Charges, and FY 2020-2024 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 and GLWA Wholesale Customer Model Sewer Contract Section 20.02** 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.)

***Notice of Public Hearing Proposed Biennial Budget***

**GREAT LAKES WATER AUTHORITY  
NOTICE OF PUBLIC HEARING  
PROPOSED BIENNIAL BUDGET  
For the Two-Year Period ended June 30, 2022  
(FY 2021 and FY 2022)**

Notice is hereby given that the Great Lakes Water Authority Board of Directors will hold a Public Hearing on the FY 2021 and FY 2022 Biennial budget.

**DATE: Wednesday, February 26, 2020**

**TIME: 2:00 p.m.**

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

The proposed budget is scheduled to take effect on July 1, 2020. 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 <https://www.glwat.org/financials/>.

Individuals or groups wishing to make oral presentations or submit prepared statements pertaining to the proposed budget may do so at the Public Hearing. Individuals or groups giving oral presentations are encouraged to have their presentations in writing, with a copy to be submitted for the record to the Great Lakes Water Authority Board of Directors. Oral presentations should be brief to allow all parties the opportunity to participate. A time limit may be imposed based upon registration at the hearing.

Interested parties who are unable to attend the Public Hearing may submit their comments in writing to:

Sue F. McCormick, Chief Executive Officer  
Great Lakes Water Authority  
735 Randolph  
Detroit, Michigan, 48226

***Notice of Public Hearing Proposed Service Charges***

**GREAT LAKES WATER AUTHORITY  
NOTICE OF PUBLIC HEARING  
PROPOSED FY 2021 WATER AND SEWERAGE SERVICE CHARGES**

Notice is hereby given that the Great Lakes Water Authority Board of Directors will hold a Public Hearing on Water and Sewerage service charges proposed by the Great Lakes Water Authority for Fiscal Year 2021.

**DATE: Wednesday, February 26, 2020**

**TIME: 2:00 p.m.**

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

The proposed service charges are scheduled to take effect on July 1, 2020.

The proposed schedule of charges is available for public inspection at the office of the Authority, Water Board Building, 735 Randolph, Detroit, Michigan 48226. The proposed schedule of charges may also be found online at <https://www.glwater.org/financials/>.

Individuals or groups wishing to make oral presentations or submit prepared statements pertaining to the proposed service charges may do so at the Public Hearing. Individuals or groups giving oral presentations are encouraged to have their presentations in writing, with a copy to be submitted for the record to the Great Lakes Water Authority Board of Directors. Oral presentations should be brief to allow all parties the opportunity to participate. A time limit may be imposed based upon registration at the hearing.

Interested parties who are unable to attend the Public Hearing may submit their comments in writing to:

Sue F. McCormick, Chief Executive Officer  
Great Lakes Water Authority  
735 Randolph  
Detroit, Michigan, 48226



***Financial Plan & Organization Strategic Goals***

- I. Financial Plan Objectives
- II. Organization Strategic Goals
  - A. Bond Credit Rating of AA
  - B. Positive Key Performance Indicators
- III. Strategic Asset Management

**I. Financial Plan Objectives**

This overview and commentary address the following key topics to understand the context of GLWA's core financial plan which is adhered to in the preparation of the budget.

- 1. 4% Revenue Requirement Commitment
- 2. Revenue Stability for the System
- 3. Managing Charge Stability for Our Customers
- 4. Retail System Revenue and Collections
- 5. Water Residential Assistance Program
- 6. Closed Loop Lease Payment
- 7. Closed Legacy Benefit Plan Costs

**1. The 4% Revenue Requirement Commitment** - Since 2012, the water and sewer system has engaged an optimization effort to reduce expenses and stabilize revenues. The objectives of both efforts were 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" budget to limit the annual basis increase to 4% or less. The revenue requirement reflects those items which can be controlled by board policy and good management: operations and maintenance expenses, debt burden, and cash reserves. This 4% pledge by the management team was memorialized in the MOU that established the regional authority for the first ten years of its existence beginning with FY 2016. GLWA's long-term financial plan strives to perform well within the 4% commitment as demonstrated by a limitation of operations and maintenance ceiling of 2% for FY 2021 through FY 2025 as presented in this document.

**2. Revenue Stability for the System** - While the revenue requirement budget can be managed, revenues based on customer volume demands, are subject to external forces. Nationally, changes in weather and the benefits of conservation have contributed to steadily declining water volume demand.

- To stabilize water system revenue, two modifications to the wholesale customer charge model were implemented beginning with FY 2016. First, the charge model is now based on 60% fixed cost recovery and 40% of volume charges (which previously was 40% fixed cost recovery and 60% volume). Second, a cohesive approach to estimating water sales volumes for each customer was implemented. Instead of developing charges on disparate three to five-year projections and methodologies in individual customer contracts, water sales volume projections were calculated based on a uniform forecasting method that reflects sales in both peak and non-peak months over the course of a 24-month time period ending in September 2014. Starting in Fiscal Year 2018, the 24-month average sales volume method was updated

to a 36-month average sales volume for each customer ending September 2016. The averaging method was further refined to consider the peak month volumes, from April to September, and the base month volumes in a separate manner. To recognize the continued decrease in volume, the 36-month average of the base month volume was decreased by five percent for each customer. The 36-month peak month volume for each customer was not adjusted. This method was continued with the Fiscal Year 2020 charges. This revenue stability initiative has proven successful with revenues at or near 100% for fiscal years 2016-2019.

- Effective with FY 2015, the wholesale sewer rate simplification methodology became effective with the objective of achieving sewer system revenue stability and efficiency. Under this revenue-setting methodology, costs are allocated based on each customer's historical use of the system known as a "share" and is revisited every three years. Billings are based on one-twelfth of the annual revenue requirement. The sewer system's wholesale revenue plan has a high degree of stability with achievement of wholesale revenues at 100%.

**3. Managing Charge Stability for Our Customers** - The revenue stability initiatives for the water and sewer systems have improved charge stability for our customers – yet we know there is more that we can do.

- Due to water revenue stability measures, individual customer water charge adjustments now have less variability from the average charge adjustment. Our goal is to achieve an even narrower band through evaluating the timing of contract reopeners for all customers versus the current multiple year cycle that varies by customer. In addition, declining usage allows the GLWA to decommission and repurpose the Northeast Water Treatment within the next few years. This impacts the geographic component of the charge model. While this optimization project is in its early design phase, GLWA and its wholesale customers will begin evaluating the effect of geographic distance and elevation from water treatment facilities component on the charge model while holding the other two components, specific volumes and contractual demands, constant.
- Sewer rate simplification has provided a very predictable charge model for financial planning for both GLWA and its member partners. In 2019 an outside consultant with cost-allocation expertise was engaged to gather member partner concerns and ideas for further improvements and simplification of the charge methodology. Final recommendation for any sewer share method changes is expected in calendar year 2020 for consideration in FY 2022 charges. This timeframe aligns with the concurrent development of final recommendations in the Wastewater Master Plan (WWMP). Over the last few years, GLWA, its member partners and other stakeholders have worked collaboratively to develop a comprehensive, regional Wastewater Master Plan. The plan was designed with affordability in mind and prioritizing lower cost, high-impact projects that provide the greatest benefit to the regional system, while first maximizing the use of existing infrastructure. By managing the entire system effectively, we reduce costs for everyone while protecting the environment.

**4. Retail System Revenue and Collections** - The regional collaboration that resulted in the formation of the GLWA was based on a foundation of achieving both a sustainable regional and local system as well as protecting stakeholder interests. That foundation includes sufficient operating and capital resources and a commitment to funding existing and new financial obligations. The relationship between the GLWA and the DWSD is outlined in the Regional System Leases for the water and sewer

systems, water, and sewer services agreement, and the GLWA Master Bond Ordinance (MBO). Retail system revenue is pledged revenue to the Authority for repayment of outstanding revenue bonds. DWSD is agent for GLWA in establishing the retail rates, issuing bills, and performing collections. For this reason, all revenue receipts for the local retail system are deposited into a revenue receipts fund. Collected revenues are distributed monthly based on 1/12 of the annual budget requirements in the order of the flow of funds established in the MBO. The regional system and local system operations and maintenance 1/12<sup>th</sup> budget requirements are distributed first. Next, revenues are distributed as established by the Trustee to fund revenue bond debt obligations. Further monthly distributions follow the flow of funds in the order of the Revenue Requirements as depicted in Schedule 3 in Section 2 – Core Financial Plan Schedules. The outcome of the monthly distribution of the revenue receipts is that the retail system obligations are funded 100%, on a monthly basis. To the extent that there is a collections shortfall, there are a number of remedies including a budget stabilization fund and quarterly budget reviews, to adjust expenses to be in line with collections.

**5. Water Residential Assistance Program** - The MOU and Water and Sewage Disposal System Regional Leases included a provision to establish a Water Residential Assistance Program ("WRAP"). This program is funded at 0.5% of the base budgeted operating revenues of the water and sewer systems. The funding amount was changed to not less than 0.5% but not greater than 1.0% by the Board in March 2020. Funding for FY 2021 shall be 1%. The WRAP provides assistance to indigent residential customers throughout the communities served by GLWA for those municipalities that have opted in. The WRAP provides monthly bill assistance, arrearage assistance, minor plumbing repairs, and replacement of kitchen and bathroom fixtures that contain lead. Applicants must have income at or below 150% (200% effective March 2020) of the federal poverty threshold to qualify for WRAP. The allocation of funds to the City of Detroit and other communities within the GLWA service area is in the same proportion of revenue that customers within those geographic boundaries pay into the program. The GLWA Board may reallocate underutilized funds to ensure that the program's objectives are met across the customer base. WRAP is administered by Wayne Metro and other community action agency alliance partners.

**6. Closed Loop Lease Payment** - The Regional System Lease agreements between the City of Detroit and the Great Lakes Water Authority, provides that the Authority pay an annual amount of \$22.5 million for the regional water system and \$27.5 million for the regional sewage disposal 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 sewage disposal 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 sewage disposal systems for the benefit of the water and sewage disposal systems. 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 sewage disposal 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 sewage disposal facilities; and/or
3. pay the cost of improvements to the Detroit local water and sewage disposal system facilities.

**7. Closed Legacy Benefit Plan Costs** - The City of Detroit's Chapter 9 bankruptcy Plan of Adjustment (POA), approved on December 10, 2014, materially restructured the City's pension and retiree healthcare plan (otherwise referenced as other post-employment benefits or OPEB). The POA required annual payments by the then-existing DWSD for these closed plan for nine years with a tail liability in year ten. 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. The total annual commitment is \$45.4 million per year payable to the City of Detroit General Retirement System (GRS). A challenge for all parties will be the growing tail liability in year ten. To manage the risk of that liability, an agreement was made between the City, GLWA, and the GRS to extend the additional contributions over five-to-ten years.

The Authority is 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 Note related to the Systems' prior allocable share of the City's pension obligation certificates. The Authority's allocable portion of those settlement payments was approximately \$102 million at bifurcation in 2016.

The pension and BC 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. See further information in the Legacy Commitments under Section 4 – Supplemental Analysis.

## II. Organization Strategic Goals

The Authority's strategic goals are to A) be positioned as a solid AA category credit by meeting or exceeding rating agency criteria in order to reduce the cost of capital and B) positive key performance indicators (KPI's) which are based on the ten attributes of the effective utility management (EUM) framework for GLWA as a whole. These KPI's will be updated in the future as the Authority is in the process of implementing a Strategic Asset Management Plan as discussed in Section VI. Each goal is discussed in further detail below. Each O&M department in Section 3 of this budget document includes a table showing how each department's initiatives contribute towards achieving the organizational goals.

### A. Bond Credit Rating of AA

Bond ratings are a key measure of an organization's financial strength. Ratings are established by independent agencies that conduct detailed reviews of an organization's operational and financial performance to assist those seeking to invest in an organization through the purchase of bonds.

The table below provides a summary of the current debt ratings for the Authority as of March 2020.

Current Debt Ratings			
	S&P Global Ratings	Moody's Investors Service	Fitch Ratings
<b>Water Supply System Revenue Bonds</b>			
Senior lien	AA-	A1	A+
Second lien	A+	A2	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Stable	Stable
<b>Sewage Disposal System Revenue Bonds</b>			
Senior lien	AA-	A1	A+
Second lien	A+	A2	A
Junior lien	A+	N/A	N/A
Outlook	Stable	Stable	Stable

The path to becoming a solid AA credit is based upon rebalancing the mix of debt financing and revenue generated capital (i.e. pay-as-you go) to fund the capital improvement plan (CIP). By reducing the portion of annual revenue dollars that are dedicated to debt service, the following types of metrics used by rating agencies will improve reflecting characteristics of a strong credit.

- ✓ Operating Margin
- ✓ Debt Service Coverage Ratio
- ✓ Debt to Operating Revenue Ratio
- ✓ Free Cash as a Percentage of Depreciation
- ✓ Net Position
- ✓ Debt/Asset Ratio



To achieve that goal, the organization needed a roadmap in terms of a long-term financial forecast. Early in calendar year 2018, GLWA launched the FY 2030 long-term forecast model. The driving question is realizing that decisions made decades ago impact the present; how will decisions we make today impact the region decades from now? The model, initially presented to the [Audit Committee](#) in May 2018 and subsequently to Member Partners that same month, provides for multiple scenarios and assumptions. The model provided early value as it provided context to stakeholders when considering the appropriate level of service charges for FY 2019. With modest assumptions, the FY 2030 plan provides a path forward to eliminate the net deficit by 2030 while continuing to invest in infrastructure asset renewal and replacement.

In October 2018, GLWA issued refunding bonds for both the [water](#) and [sewage disposal](#) systems. That successful transaction resulted in favorable interest rates on new debt and cash flow savings of approximately \$85 million over the life of refunded bonds. After the FY 2021 and FY 2022 biennial budget was adopted by the Board in March 2020, GLWA issued refunding bonds for the [water](#) system in May 2020 and the [sewage disposal](#) system in June 2020. Those successful transactions resulted in favorable interest rates on new debt and cash flow savings of approximately \$324 million over the life of refunded bonds.

The model has been updated to reflect the current state at the time of the FY 2021 Budget adoption. The successful refunding after the Budget adoption will improve these credit ratings metrics and they will be updated in next year's budget presentation. The picture below depicts moving from red (less than A metrics) to yellow (A metric), to light green (AA metric) to dark green (AAA metric). A table follows the detailed model which summarizes the key metrics at selected intervals.

### Water Supply System – FY 2030 Plan - Depiction of Improving Credit Rating Metrics

GLWA Forecast Executive Summary Water Supply System - \$ millions															
Metric Calculations	Metric Target			2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Min A	Min AA	Min AAA												
Operating Margin															
1 Depreciation Expense				144.1	131.9	125.7	127.8	130.7	129.2	90.5	90.7	89.8	86.8	87.2	87.8
2 Total Operating Expenses				261.8	263.3	262.9	267.5	271.7	272.5	236.9	240.0	242.2	242.2	245.7	249.4
3 Operating Margin				62.8	62.9	73.9	80.6	86.9	96.9	143.7	152.1	161.8	174.0	183.2	192.4
4 Operating Margin %	25%	40%	50%	19.4%	19.3%	22.0%	23.2%	24.2%	26.2%	37.8%	38.8%	40.1%	41.8%	42.7%	43.5%
Regional Revenue Allocation															
5 O&M				36.8%	41.4%	41.9%	41.4%	40.6%	38.4%	38.1%	37.7%	37.3%	37.0%	36.6%	36.3%
6 Debt Service	40%	33%	25%	39.0%	41.4%	41.9%	40.1%	43.1%	44.6%	44.3%	44.9%	44.4%	45.0%	44.5%	45.2%
7 Non-Operating Expense				9.0%	9.2%	8.9%	8.7%	8.4%	7.3%	7.3%	7.1%	6.8%	6.6%	6.4%	6.3%
8 Capital Financing				15.2%	7.9%	7.3%	9.8%	7.9%	9.8%	10.3%	10.3%	11.4%	11.4%	12.4%	12.2%
9 Total				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Debt Service Coverage															
10 Net Revenue - Local System				30.1	37.6	41.7	44.5	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
11 Total Net Revenues				242.8	232.0	240.2	250.7	261.3	276.0	284.0	292.6	301.5	310.7	320.2	330.0
12 Debt Service Coverage	1.25	1.70	2.00	1.45	1.32	1.30	1.35	1.29	1.30	1.31	1.31	1.33	1.32	1.34	1.33
13 Sr. Lien Debt Service Coverage	1.50	2.00	2.25	2.04	1.86	1.84	1.88	1.83	1.81	1.81	1.78	1.78	1.75	1.77	1.76
Debt to Operating Revenue															
14 Outstanding Debt Balance				2,250.2	2,394.7	2,489.8	2,417.3	2,604.1	2,512.6	2,611.8	2,508.3	2,614.9	2,499.0	2,543.2	2,414.0
15 Estimated Premium/Discount				246.2	259.8	252.6	244.6	236.6	227.6	218.2	208.3	198.0	187.2	176.0	164.3
16 Outstanding Indebtedness				2,496.4	2,654.5	2,742.4	2,661.9	2,840.7	2,740.3	2,830.1	2,716.6	2,812.9	2,686.3	2,719.2	2,578.2
17 Debt to Operating Revenue	7.0	4.0	2.0	6.14	6.47	6.52	6.16	6.38	5.98	6.00	5.60	5.63	5.23	5.14	4.73
Free Cash as a % of Depreciation															
18 Free Cash as a % of Depreciation	65%	105%	145%	52.5%	43.3%	44.9%	52.6%	47.0%	46.2%	70.3%	71.4%	78.3%	82.6%	89.3%	89.4%
19 Net Position	-	250	500	(81.7)	(109.4)	(129.2)	(139.6)	(147.2)	(146.2)	(99.9)	(45.1)	18.0	93.6	178.4	273.4
20 Debt / Asset Ratio	1.00	0.90	0.75	1.07	1.11	1.14	1.09	1.16	1.11	1.12	1.05	1.06	0.99	0.98	0.92



### Sewage Disposal System – FY 2030 Plan - Depiction of Improving Credit Rating Metrics

GLWA Forecast Executive Summary Sewage Disposal System - \$ millions															
Metric Calculations	Metric Target			2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	Min A	Min AA	Min AAA												
Operating Margin															
1 Depreciation Expense				168.5	151.4	145.8	146.0	144.9	144.2	127.0	130.0	130.9	131.1	132.2	135.6
2 Total Operating Expenses				342.6	338.4	330.7	334.9	339.0	342.7	329.0	336.1	341.1	345.5	350.9	358.6
3 Operating Margin				126.9	133.4	150.4	161.1	172.1	184.0	213.8	223.2	235.2	248.3	261.0	271.8
4 Operating Margin %	25%	40%	50%	27.0%	28.3%	31.3%	32.5%	33.7%	34.9%	39.4%	39.9%	40.8%	41.8%	42.7%	43.1%
Regional Revenue Allocation															
5 O&M				38.6%	41.5%	40.2%	39.8%	39.7%	37.3%	36.9%	36.5%	36.2%	35.8%	35.5%	35.1%
6 Debt Service	40%	33%	25%	43.8%	44.8%	43.1%	43.0%	41.2%	42.4%	38.9%	40.2%	39.9%	39.1%	36.9%	37.7%
7 Non-Operating Expense				8.7%	8.7%	8.5%	8.3%	8.1%	6.7%	6.8%	6.6%	6.4%	6.1%	6.0%	5.8%
8 Capital Financing				8.9%	5.0%	8.2%	8.9%	11.0%	13.6%	17.4%	16.7%	17.6%	18.9%	21.6%	21.4%
9 Total				100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Debt Service Coverage															
10 Net Revenue - Local System				11.4	31.6	31.8	32.2	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8
11 Total Net Revenues				305.6	310.7	322.8	333.8	344.4	366.2	378.6	391.0	403.8	417.1	430.7	444.9
12 Debt Service Coverage	1.25	1.70	2.00	1.28	1.27	1.34	1.35	1.40	1.42	1.54	1.51	1.53	1.56	1.65	1.63
13 Sr. Lien Debt Service Coverage	1.50	2.00	2.25	2.10	2.12	2.43	2.31	2.22	2.33	2.45	2.27	2.31	2.35	2.40	2.38
Debt to Operating Revenue															
14 Outstanding Debt Balance				3,093.4	3,050.7	3,011.6	2,902.9	2,938.4	2,821.0	2,780.5	2,654.3	2,590.8	2,437.4	2,353.8	2,195.5
15 Estimated Premium/Discount				158.4	255.6	246.4	237.3	227.1	217.1	206.2	196.1	184.7	172.6	160.1	147.8
16 Outstanding Indebtedness				3,251.8	3,306.3	3,258.0	3,140.2	3,165.5	3,038.2	2,986.8	2,850.4	2,775.5	2,610.0	2,514.0	2,343.4
17 Debt to Operating Revenue	7.0	4.0	2.0	5.91	5.76	5.50	5.08	5.01	4.70	4.48	4.15	3.92	3.58	3.35	3.03
Free Cash as a % of Depreciation															
18 Free Cash as a % of Depreciation	65%	105%	145%	50.7%	46.9%	59.3%	62.8%	71.8%	71.3%	100.3%	97.2%	102.7%	110.8%	125.2%	123.8%
19 Net Position	-	250	500	(123.9)	(142.0)	(140.1)	(120.6)	(89.2)	(44.4)	32.3	121.6	225.8	346.7	484.2	636.7
20 Debt / Asset Ratio	1.00	0.90	0.75	1.05	1.08	1.07	1.04	1.06	1.03	1.01	0.97	0.95	0.90	0.87	0.82

### FY 2030 Long-term Forecast Model Excerpts - Key Assumptions and Related Metric at Selected Intervals

The two key assumptions that drive both the water and sewer system FY 2030 financial models include an annual increase in the Operation & Maintenance expenses of 2.0 percent and a 3.0 percent annual increase in annual revenues and revenue requirements. The impacts of the key assumptions on the six selected metrics for the FY 2030 financial model are shown for FY 2019; GLWA's recently completed fiscal year, FY 2020; GLWA's current fiscal year, FY 2025; the last year of GLWA's current financial forecast and FY 2030; the last year of the long-term financial model. These results are shown for both the water and sewage disposal systems.

### Water Supply System – FY 2030 Long-term Forecast Model Excerpts

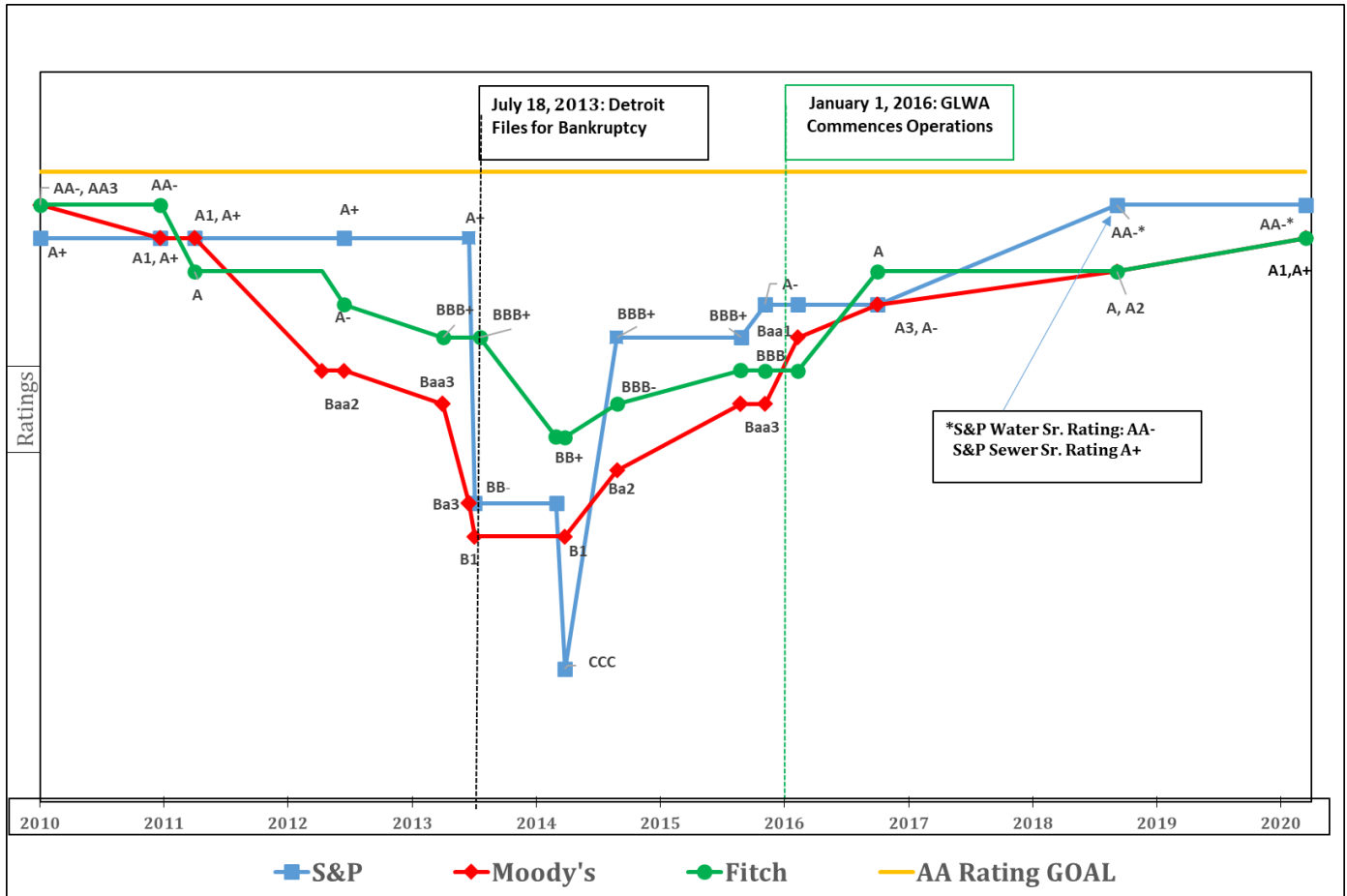
Water Supply System - Summarized Metrics							
Sewage Disposal System – FY 2030	Metric Target			2019	2020	2025	2030
	Min A	Min AA	Min AAA				
Operating Margin %	25%	40%	50%	19.4%	19.3%	37.8%	43.5%
Debt Service % of Rev Req't	40%	33%	25%	39.0%	41.4%	44.3%	45.2%
Debt Service Coverage	1.25	1.70	2.00	1.45	1.32	1.31	1.33
Sr. Lien Debt Service Coverage	1.50	2.00	2.25	2.04	1.86	1.81	1.76
Debt to Operating Revenue	7.0	4.0	2.0	6.14	6.47	6.00	4.73
Free Cash as a % of Depreciation	65%	105%	145%	52.5%	43.3%	70.3%	89.4%
Net Position	-	250	500	(81.7)	(109.4)	(99.9)	273.4
Debt / Asset Ratio	1.00	0.90	0.75	1.07	1.11	1.12	0.92

### Long-term Forecast Model Excerpts

Sewage Disposal System - Summarized Metrics							
Sewage Disposal System – FY 2030	Metric Target			2019	2020	2025	2030
	Min A	Min AA	Min AAA				
Operating Margin %	25%	40%	50%	27.0%	28.3%	39.4%	43.1%
Debt Service % of Rev Req't	40%	33%	25%	43.8%	44.8%	38.9%	37.7%
Debt Service Coverage	1.25	1.70	2.00	1.28	1.27	1.54	1.63
Sr. Lien Debt Service Coverage	1.50	2.00	2.25	2.10	2.12	2.45	2.38
Debt to Operating Revenue	7.0	4.0	2.0	5.91	5.76	4.48	3.03
Free Cash as a % of Depreciation	65%	105%	145%	50.7%	46.9%	100.3%	123.8%
Net Position	-	250	500	(123.9)	(142.0)	32.3	636.7
Debt / Asset Ratio	1.00	0.90	0.75	1.05	1.08	1.01	0.82

The graph below shows the improvement in the debt ratings since the commencement of GLWA and the progress made in achieving the goal of an AA bond rating.

Senior Lien Rating Actions 2010-2020



## B. Positive Key Performance Indicators

GLWA has embraced the Effective Utility Management (EUM) framework to ensure organizational success. GLWA aligns its monthly key performance indicators (KPI) with the EUM frameworks ten attributes. The ten attributes and the components of the attributes are detailed below.

- 1. Financial Viability** - Understands the full life-cycle cost of utility operations and value of water resources. Establishes and maintains an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues. Establishes predictable rates—consistent with community expectations and acceptability—adequate to recover costs, provide for reserves, maintain support from bond rating agencies, plan and invest for future needs, and taking into account the needs of disadvantaged households. Implements sound strategies for collecting customer payments. Understands the opportunities available to diversify revenues and raise capital through adoption of new business models.

2. **Product Quality** - Produces “fit for purpose” water that meets or exceeds full compliance with regulatory and reliability requirements and consistent with customer, public health, ecological, and economic needs. Products include treated drinking water, treated wastewater effluent, recycled water, stormwater discharge, and recovered resources.
3. **Infrastructure Strategy and Performance** - Understands the condition of and costs associated with critical infrastructure assets. Plans infrastructure investments consistent with anticipated growth, system reliability goals, and relevant community priorities, building in flexibility for evolution in technology and materials, and uncertainty in the overall future operating context (e.g., climate impacts, customer base). Maintains and enhances the condition of all assets over the long-term at the lowest possible life-cycle cost and acceptable risk consistent with customer, community, and regulator-supported service levels. Assures asset repair, rehabilitation, and replacement efforts are coordinated within the community to minimize disruptions and other negative consequences
4. **Operational Optimization** - Ensures ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of its operations in service to public health and environmental protection. Makes effective use of data from automated and smart systems and learns from performance monitoring. Minimizes resource use, loss, and impacts from day-to-day operations, and reduces all forms of waste. Maintains awareness of information and operational technology developments to anticipate and support timely adoption of improvements.
5. **Enterprise Resiliency** - Ensures utility leadership and staff work together internally, and with external partners, to anticipate, respond to, and avoid problems. Proactively identifies, assesses, establishes tolerance levels for, and effectively manages a full range of business risks (including interdependencies with other services and utilities, legal, regulatory, financial, environmental, safety, physical and cyber security, knowledge loss, and natural disaster-related) in a proactive way consistent with industry trends and system reliability goals.
6. **Customer Satisfaction** - Provides reliable, responsive, and affordable services in line with explicit, customer-derived service levels. Utilizes a mix of evolving communication technologies to understand and respond to customer needs and expectations, including receiving timely customer feedback and communicating during emergencies. Provides tailored customer service and outreach to traditional residential, commercial, and industrial customers, and understands and exercises as appropriate the opportunities presented by emergent customer groups (e.g., high strength waste producers, power companies).
7. **Water Resource Sustainability** - Ensures the availability and sustainable management of water for its community and watershed, including water resource recovery. Understands its role in the complete water cycle, understands fit for purpose water reuse options, and integrates utility objectives and activities with other watershed managers and partners. Understands and plans for the potential for water resource variability (e.g., extreme events, such as drought and flooding), and utilizes as appropriate a full range of watershed investment and engagement strategies (e.g., Integrated Planning). Engages in long-term integrated water

resource management, and ensures that current and future customer, community, and ecological water-related needs are met.

- 8. Stakeholder Understanding and Support** - Engenders understanding and support from stakeholders (anyone who can affect or be affected by the utility), including customers, oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions. Actively promotes an appreciation of the true value of water and water services, and water's role in the social, economic, public, and environmental health of the community. Involves stakeholders in the decisions that will affect them, understands what it takes to operate as a "good neighbor," and positions the utility as a critical asset to the community.
- 9. Employee and Leadership Development** - Recruits and retains a workforce that is competent, motivated, adaptive, and safety-focused. Establishes a participatory, collaborative organization dedicated to continual learning, improvement, and innovation. Ensures employee institutional knowledge is retained, transferred, and improved upon over time. Provides a focus on and emphasizes opportunities for professional and leadership development, taking into account the differing needs and expectations of a multi-generational workforce and for resource recovery facilities. Establishes an integrated and well-coordinated senior leadership team.
- 10. Community Sustainability** - Takes an active leadership role in promoting and organizing community sustainability improvements through collaboration with local partners (e.g., transportation departments, electrical utilities, planning departments, economic development organizations, watershed, and source water protection groups). Manages operations, infrastructure, and investments to support the economic, environmental, and social health of its community. Integrates water resource management with other critical community infrastructure, social, and economic development planning to support community-wide resilience, sustainability, and livability to enhance overall water resource sustainability.

Achievement of the KPI goals is reported monthly to the Board of Directors. The monthly report includes the KPI dashboard and a written report to explain unfavorable variances. The table below is an example of the monthly report with the status of last month of each fiscal year since 2017 and the status as of March 2020. The table identifies the KPI (EUM Attribute), goals to attain that attribute and the criteria used to measure the attainment of the goal. These KPIs are an element of GLWA's performance measurement. If the KPIs are positive (status of green) then the financial health and long-term sustainability of the organization for its stakeholders and the environment is achieved.

CEO KPI Report Summary							
EUM Attribute	Measure	Significance	Criteria	Status			
				Was not measured during that time period			
				Jun-17	Jun-18	Jun-19	Mar-20
Financial Viability	Operations & Maintenance cash balance exceeds 30 days of budget requirements	Resources consumed for operations and maintenance activities are less than budgeted amounts	Green = 100% Yellow = 90-99% Red = <90%				
	Water system wholesale monthly billed revenues will meet or exceed budgeted amount	Method for establishing revenue projections are reliable	Green=100% Yellow= 85-99% Red = <85%				
	Sewer system wholesale monthly billed revenues will meet or exceed budgeted amount	Method for establishing revenue projections are reliable	Green=100% Yellow= 85-99% Red = <85%				
	Days to Pay an Invoice	Timely vendor payments support health supplier relationships.	Green = 43 days or less Yellow = >43 to <48 days Red = >48days				
	FY Total CIP Spend	Method for establishing spending is aligned with budgeted revenue	Green= >80% Yellow= 70-80% Red = < 70%				
Product Quality	Effluent phosphorus concentration will be at least 20% below Permit levels	Wastewater regulatory compliance	Green= below 80% of Permit Levels Yellow = between 80 and 100% of Permit levels Red = exceeds Permit levels				
	GLWA will maintain 100% compliance with Safe Drinking Water Act	Water services compliance	Green= 100% compliance Red = <100% compliance				
Infrastructure Strategy and Performance	Water - Preventative maintenance projects completed as planned	Reduced risk of unplanned downtime or inefficiencies	Green = 80-100% Yellow = 60-,80% Red = >60%				
	Wastewater - Preventative maintenance projects completed as planned	Reduced risk of unplanned downtime or inefficiencies	Green = 80-100% Yellow = 60-,80% Red = >60%				
	Water - Preventative maintenance projects completed as a percentage of total projects	Reduced risk of unplanned downtime or inefficiencies	Green = 75-85% Yellow = >85% Red = <75%				
	Wastewater - Preventative maintenance projects completed as a percentage of total projects	Reduced risk of unplanned downtime or inefficiencies	Green = 75-85% Yellow = >85% Red = <75%				
	Water - 25 or more valves exercised per month	Reduced risk of unplanned downtime or emergency repairs	Green = 25 or more per month Yellow= 21 -24 per month Red = 20 or less per month				
	Water - 100% of GLWA valves assessed are operational.	Reduced risk of unplanned downtime and service interruption	Green = 90-100% Yellow = 80 -,90% Red = <80%				
Operational Optimization	WWTP staffing levels meet ACO Targets	Wastewater regulatory compliance	Green= 95 - 100% Yellow = 91 -94% Red = <90%				
	Monthly Average Solids Inventory Below 750 Dry Tons	Wastewater regulatory compliance	Green= Average below 725 Dry Tons Yellow = Average between 725 and 750 Dry Tons Red = Average above 750 Dry Tons				



CEO KPI Report Summary							
EUM Attribute	Measure	Significance	Criteria	Status			
				Jun-17	Jun-18	Jun-19	Mar-20
Enterprise Resiliency	The number of Security and Integrity patrols each month will meet or exceed baseline target of an average of 65 per day	Risk prevention	Green = 2,350 or more patrols Yellow = 2,000 - 2,350 patrols Red = <2,000 patrols				
	The number of investigative security reports will decrease each month	Risk prevention	Green = Decrease Yellow = Same as previous month Red = increase				
	GLWA security patrols will produce an average of 2 security reports (incident and facility inspection) per patrol.	Risk prevention	Green = 1.9 - 2.7 average reports per patrol Yellow = 1.5 - <1.9 or >2.7 - 2.9 average reports per patrol Red = <1.5 or >2.9 average reports per patrol				
	General Counsel will receive 15 or less information requests each month	Employee safety and risk mitigation	Green = Lower Yellow = Benchmark Red = Higher				
	Number of contracts reviewed and drafted by General Counsel will remain constant year-over-year	Effective management of workflow. Risk mitigation.	Green = constant from same month in 2016 Yellow = <10% Increase from same month in 2016 Red = 11 or more increase from same month in 2016				
	Workers compensation quarterly claims frequency will be at or below Bureau of Labor Standards Benchmark of 6.1 incidents per 100 FTEs	Employee safety and risk mitigation	Green = Lower Yellow = Benchmark Red = Higher				
	GLWA will exceed the 68 % service sector standard by resolving at least 78% of Incidents reported to the Service Desk within 24 hours of receipt.	Rapid Incident response promotes Employee Productivity	Green = 78- 100% Yellow = 68% to <78% Red = <68 %				
	GLWA will exceed the 68% service sector standard by resolving at least 78% of service requests reported to the Service Desk within 5 days of receipt.	Rapid Service Request response promotes Employee Productivity	Green = 78- 100% Yellow = 68% to <78% Red = <68 %				
	All GLWA sites (59) with Wide Area Network (WAN) connections will have 100% availability excluding schedule down time for maintenance.	Network Connectivity promotes Employee Productivity	Green = 99.98 - 100% Yellow >=99.50% and <99.98% Red <99.50%				
	At least 99% of GLWA system data back-ups will be successful on the first attempt.	Network management protects data and promotes Employee Productivity	Green = 95 -100% first attempt success Yellow =90 - <95% first attempt success Red <90% first attempt success				
Customer Satisfaction	At least 85% of GLWA team members will complete the most recent monthly cyber-security training within one month of issuance.	Cyber risk prevention	Green = 85 -100% completion Yellow = 75 - <85% completion Red <75% completion				
	GLWA will maintain pressure variance within 98% of required contract amounts	System reliability	Green = 95-100% Yellow = 95 - 90% Red = <90%				

CEO KPI Report Summary							
EUM Attribute	Measure	Significance	Criteria	Status			
				Jun-17	Jun-18	Jun-19	Mar-20
<b>Water Resource Sustainability</b>	No more than 10% of GLWA solids will be disposed of through landfilling.	Community sustainability and watershed health	Green = 10% or less sent to landfills Red = >10% sent to landfill				
	Monthly Average Solids Inventory Below 750 Dry Tons	Wastewater regulatory compliance	Green= Average below 725 Dry Tons Yellow = Average between 725 and 750 Dry Tons Red = Average above 750 Dry Tons				
	During the fire remediation and until Complex 2 is certified for operation, GLWA will maximize beneficial use of solids through incineration alternatives	Community sustainability and watershed health	Green = <5 days of incineration in month Yellow = 5 - 15 days incineration in month Red = >15 days incineration in month				
<b>Stakeholder Understanding and Support</b>	At least 75% percent of Articles mentioning GLWA will express a positive or neutral sentiment.	Effective media interaction	Green = >75% Yellow = <76% and <60% Red = <60% of coverage				
	GLWA Materials will be used or GLWA Sources quoted in at least 75% of online and print articles mentioning the GLWA.	Effective media interaction	Green = Pull through >75% Yellow = Pull through > 50% band < 75% Red = Pull through <50%				
<b>Employee and Leadership Development</b>	GLWA's employee retention rate will exceed the 94.9 % industry average rate	Organizational development employee retention	Green = higher retention rate Yellow = industry average retention rate Red = lower retention rate				
<b>Community Sustainability</b>							

## VII. Strategic Asset Management

In November 2019 GLWA released the initial [Strategic Asset Management Plan](#) (SAMP). The SAMP is a strategic document laying the foundation for asset management at GLWA. It includes:

- ✓ Asset management vision, policy, and objectives
- ✓ Line-of-sight that begins to link each team member's asset management contributions to GLWA's organizational objectives
- ✓ Asset management governance, roles and responsibilities, and principles for decision-making
- ✓ GLWA's commitment to align with the water service sector's best practices
- ✓ Asset management implementation plan with improvement initiatives
- ✓ Expectations for development of Asset Management Plans (AMPs)

Our **Asset Management Vision** is to be a leader in infrastructure management by making decisions informed by risk, regional needs and lifecycle considerations. This SAMP will help us accomplish our vision by defining and guiding the following interconnected elements:

**Alignment** - We will conduct our asset management activities in alignment with our Vision, Mission and Policy.

**Service Levels** - We will collaborate with the region to establish service levels that safely reflect the desires of member partners, end users, the public, the environment, and regulators.

**Asset Lifecycle** - We will manage our infrastructure assets using a holistic approach that considers all stages of the asset lifecycle and the interconnected nature of the stages.

**Asset Management Framework** - We will use the SAMP as a framework for our asset management activities and will update it at least every five years. We will execute our asset management roadmap and provide quarterly and yearly updates.

**Asset Management Plans** - We will develop asset management plans for types of assets (e.g., water treatment assets) to manage the reliability, activities, resources, and timescales required to achieve asset management objectives. We will establish defined cross-functional teams to develop the asset management plans and update them at least every three years.

**Risk** - We will manage enterprise, operational, project execution, and asset risks. We will identify, analyze, and treat risk using a systematic approach and will proactively seek to treat risks before impacts occur.

**Data and Information** - We will maintain up-to-date and accurate asset data, treating data as an asset and considering the data lifecycle in our business processes. We will use data to make informed decisions about asset maintenance priorities, risk treatments, and financial investments.

**Performance** - We will manage, measure, and report our performance in meeting our established service levels and asset management objectives.

**People** - We will treat our team members as asset management enablers and support them with communications, engagement, competency development, and change management strategies.

**Continuous Improvement** - We will continuously improve our asset management journey using tactics such as benchmarking, industry engagement, networking, innovation, and measuring and reporting.

Our **Asset Management Policy** provides the framework and principles by which the GLWA will ensure sound stewardship of its regional assets to deliver established service levels in the most effective and efficient manner, while maintaining compliance with regulations. The policy presents the principles by which asset management decisions will be made and the requirements needed to support those decisions. The asset management principles stipulated in the policy are as follows:

**Member-Focused** - Meet established service levels and continue to engage with our team members, member partners and other stakeholders to obtain feedback on our performance and the services they value.

**Safety** - Employ the necessary means and methods to protect the public from hazards involving our activities; ensure our team members are trained and they have and use the knowledge, tools, and supplies to protect them from harm.

**Lifecycle Approach** - Consider whole-life costing when evaluating alternatives; manage all aspects of the asset lifecycle, including the full costs of planning, designing, acquiring, constructing, commissioning, operating, maintaining, renewing, and retiring our assets.

**Forward-Looking** - Make decisions to better enable our assets to meet the social, environmental, financial, and regulatory challenges of the future; consider long-term consequences of short-term activities.

**Managed Risk** - Understand how risk changes over time; regularly assess the consequences and likelihood of asset failure so that resources and priorities can be directed to treat risks to a tolerable level.

**Data-Driven** - Capture and leverage current and reliable data; employ sound data governance and data management procedures to support informed lifecycle decision-making.

**Transparent** - Commit to systematic, repeatable, objective, data-driven, and auditable decision making with an open approach to sharing appropriate and meaningful information.

**Innovative** - Implement non-traditional, innovative solutions considering people, processes, technology, project delivery, funding, resources, operations and maintenance, and other aspects of the asset lifecycle.

Our **Asset Management Objectives** identify the key outcomes desired from the adoption of asset management practices in compliance with the Asset Management Policy and its principles. Progress toward the objectives will be periodically monitored and reported. While it is preferable for objectives to be quantifiable, it is not necessary as long as the objectives can be measured through descriptions. GLWA selected the following six asset management objectives:

- ✓ Continuously deliver established service levels at the lowest lifecycle cost while maintaining an acceptable risk profile.
- ✓ Make safety a forethought by anticipating and eliminating hazards, or mitigating their risk, when elimination is not reasonably practicable, throughout all phases of the asset lifecycle.
- ✓ Improve reliability by increasing proactive maintenance and reducing the need for unplanned reactive maintenance.
- ✓ Make informed and defensible decisions on capital and operational investments to achieve organizational objectives through strategic business case evaluations and consideration of long-term costs vs. benefits.
- ✓ Have timely access to trusted and relevant data and information.
- ✓ Develop and retain a competent and highly skilled workforce through continual learning opportunities.

We are implementing asset management consistently across all business units so that team members, processes, and tools work together to ensure we make well-informed and balanced decisions regarding three interrelated imperatives:

- ✓ Understanding and achieving community desires
- ✓ Delivering services while managing risk within the existing infrastructure and system configuration
- ✓ Investing as required to continue delivering services to meet community needs

As discussed in section II.B. above, GLWA currently tracks about 33 KPIs and EUM metrics monthly in a report provided to the Board and available to the public on the GLWA. In addition, a quarterly Construction Work in Progress report tracks actual progress of spending compared to budgeted

amounts. Reporting is also provided to water and wastewater regulators to give evidence that GLWA is meeting requirements. GLWA intends to use a combination of the following approaches to develop a comprehensive set of performance indicators (PIs) which will be measured routinely:

- ✓ Following development of service level objectives, determine the performance required to track service levels and establish PIs accordingly.
- ✓ Through the process of preparing Asset Management Plans (AMPs), determine PI necessary for that grouping of assets.
- ✓ Seek input from management and staff regarding performance that should be tracked to achieve organizational goals and establish PIs accordingly.
- ✓ As it makes sense relative to GLWA's needs, adopt PIs from water and wastewater sector organizations and asset management industry.

GLWA understands that its desired state of asset management is a moving target and that asset management is best viewed as a journey not a destination. With that understanding GLWA has developed plans to achieve its desired state of asset management in ten to fifteen years. The desired state must be one of continuous improvement.

The impact on the FY 2021 budget is to provide for contractual services to support the planning effort and selection of an enterprise asset management system to support the data driven needs. Staff resources are focused on the improvement initiatives including data management, asset tagging, and targeted focus in operational areas to expand the deployment of asset management principals in operations.

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## Section 2

# Core Financial Plan Schedules

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The Great Lakes Water Authority budget is presented for the two major funds, water and sewage disposal, utilizing five key schedules to depict the Core Financial Plan. The schedules present the Biennial Budget for FY 2021 and FY 2022 within the context of a five-year financial plan for FY 2021 through FY 2025. Those schedules are listed below.

### **Schedule 1 – Revenue Requirements**

This schedule summarizes the Authority’s direct costs of operations and maintenance plus its “allocable” share of debt and other long-term liabilities. These amounts establish the basis for revenue requirements and customer charges.

### **Schedule 2 – Operations & Maintenance Expenses Budget**

This schedule, and the related analysis, provide an overview of the operations & maintenance (O&M) expenses budget. Additional analysis of the O&M budgets is presented in the **Section 3 – Operating Financial Plans**.

### **Schedule 3 – Sources of Revenues and Use of Revenue Requirements – Flow of Funds Basis Consistent with the Master Bond Ordinance**

This schedule is most important for stakeholders that want to understand the Authority’s financial plan as it relates to payment of outstanding debt, other long-term commitments, and compliance with lease terms and the Master Bond Ordinance (MBO). This schedule demonstrates alignment of the financial plan with the MBO flow of funds for the regional and local system combined.

### **Schedule 4 – Debt Service Coverage Calculations Consistent with the Master Bond Ordinance**

Debt service coverage is a key measure of financial sustainability. This schedule demonstrates how debt service coverage is calculated and how the combined local and regional system revenues provide for payment of outstanding bond obligations.

### **Schedule 5 – Improvement & Extension Funds and Construction Funds**

The GLWA has an Improvement & Extension Fund (I&E) and a Construction Fund for each system. Inflows to the I&E Fund represent revenues in excess of expenses. Building the I&E Fund over time is a key financial objective of GLWA to reducing reliance on revenue bonds. Inflows to the Construction Funds include proceeds from the sale of bonds and investment income on those funds. Outflows are for the costs of constructing capital assets.

## Schedule 1 – Revenue Requirements

The approved FY 2021 water revenue requirements of \$341.6 million represents a budget (annual revenue requirements) increase of 0.6% from the prior year. The approved FY 2021 sewer revenue requirements of \$486.8 million represents a budget (annual revenue requirements) increase of 1.3% from the prior year. The approved FY 2021 budget for both systems is presented with a ceiling of a 4% budget increase. The annual revenue requirement reflects the total budget for operating the system and is the base amount for which the GLWA management team has pledged to increase by no more than 4% on an annual basis. This commitment was further memorialized for the first ten years in the Memorandum of Understanding that established the regional authority.

### Schedule 1A – Water System Revenue Requirements Budget

	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Water System Revenue Requirements</b>										
<b>Revenues</b>										
Revenues from Charges	\$ 330,580,000	\$ 336,807,600	\$ 6,227,600	1.9%	\$ 348,085,700	\$ 11,278,100	3.3%	\$ 358,586,400	\$ 369,392,300	\$ 380,573,500
Non-Operating Revenue	9,084,200	4,834,400	(4,249,800)	-46.8%	3,805,700	(1,028,700)	-21.3%	3,861,700	3,929,000	3,947,600
<b>Total Revenues</b>	<b>\$ 339,664,200</b>	<b>\$ 341,642,000</b>	<b>\$ 1,977,800</b>	<b>0.6%</b>	<b>\$ 351,891,400</b>	<b>\$ 10,249,400</b>	<b>3.0%</b>	<b>\$ 362,448,100</b>	<b>\$ 373,321,300</b>	<b>\$ 384,521,100</b>
<b>Revenue Requirements</b>										
Operations & Maintenance (O&M) Expense	\$ 131,490,500	\$ 137,127,300	\$ 5,636,800	4.3%	\$ 139,642,500	\$ 2,515,200	1.8%	\$ 140,985,200	\$ 143,284,900	\$ 146,442,600
General Retirement System Legacy Pension	6,048,000	6,048,000	-	0.0%	6,048,000	-	0.0%	6,048,000	-	-
Debt Service	137,557,600	143,189,900	5,632,300	4.1%	141,151,000	(2,038,900)	-1.4%	156,137,900	166,371,300	170,498,600
General Retirement System Accelerated Pension	6,268,300	6,268,300	-	0.0%	6,268,300	-	0.0%	6,268,300	2,765,500	3,543,300
Water Residential Assistance Program Contribution	1,698,300	1,669,400	(28,900)	-1.7%	1,759,500	90,100	5.4%	1,812,200	1,866,600	1,922,600
Lease Payment	22,500,000	22,500,000	-	0.0%	22,500,000	-	0.0%	22,500,000	22,500,000	22,500,000
Extraordinary Repair & Replacement Deposit	-	-	-	0.0%	-	-	0.0%	-	-	-
Operating Reserve Deposit	3,976,000	876,600	(3,099,400)	-78.0%	838,400	(38,200)	-4.4%	447,600	766,600	1,052,600
Improvement & Extension Fund Transfer Pending	30,125,500	23,962,500	(6,163,000)	-20.5%	33,683,700	9,721,200	40.6%	28,248,900	35,766,400	38,561,400
<b>Annual Water System Revenue Requirements</b>	<b>\$ 339,664,200</b>	<b>\$ 341,642,000</b>	<b>\$ 1,977,800</b>	<b>0.6%</b>	<b>\$ 351,891,400</b>	<b>\$ 10,249,400</b>	<b>3.0%</b>	<b>\$ 362,448,100</b>	<b>\$ 373,321,300</b>	<b>\$ 384,521,100</b>

### Schedule 1B – Sewer System Revenue Requirements Budget

	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Sewer System Revenue Requirements</b>										
<b>Revenues</b>										
Revenues from Charges	\$ 471,874,500	\$ 481,162,100	\$ 9,287,600	2.0%	\$ 496,004,300	\$ 14,842,200	3.1%	\$ 511,021,400	\$ 526,719,400	\$ 542,806,300
Non-Operating Revenue	8,730,800	5,589,200	(3,141,600)	-36.0%	5,349,400	(239,800)	-4.3%	5,373,000	5,166,800	5,036,400
<b>Total Revenues</b>	<b>\$ 480,605,300</b>	<b>\$ 486,751,300</b>	<b>\$ 6,146,000</b>	<b>1.3%</b>	<b>\$ 501,353,700</b>	<b>\$ 14,602,400</b>	<b>3.0%</b>	<b>\$ 516,394,400</b>	<b>\$ 531,886,200</b>	<b>\$ 547,842,700</b>
<b>Revenue Requirements</b>										
Operations & Maintenance (O&M) Expense	\$ 187,057,200	\$ 184,946,100	\$ (2,111,100)	-1.1%	\$ 188,934,600	\$ 3,988,500	2.2%	\$ 194,027,300	\$ 198,497,900	\$ 202,047,700
General Retirement System Legacy Pension	10,824,000	10,824,000	-	0.0%	10,824,000	-	0.0%	10,824,000	-	-
Debt Service	215,738,800	209,739,900	(5,998,900)	-2.8%	215,438,500	5,698,600	2.7%	212,876,000	225,429,500	213,371,800
General Retirement System Accelerated Pension	11,620,700	11,620,700	-	0.0%	11,620,700	-	0.0%	11,620,700	5,351,800	7,101,300
Water Residential Assistance Program Contribution	2,403,000	2,415,100	12,100	0.5%	2,506,800	91,700	3.8%	2,582,000	2,659,400	2,739,200
Lease Payment	27,500,000	27,500,000	-	0.0%	27,500,000	-	0.0%	27,500,000	27,500,000	27,500,000
Extraordinary Repair & Replacement Deposit	-	-	-	0.0%	-	-	0.0%	-	-	-
Operating Reserve Deposit	-	-	-	0.0%	1,329,500	1,329,500	0.0%	1,697,600	1,490,200	1,183,300
Improvement & Extension Fund Transfer Pending	25,461,600	39,705,500	14,243,900	55.9%	43,199,600	3,494,100	8.8%	55,266,800	70,957,400	93,899,400
<b>Annual Sewer System Revenue Requirements</b>	<b>\$ 480,605,300</b>	<b>\$ 486,751,300</b>	<b>\$ 6,146,000</b>	<b>1.3%</b>	<b>\$ 501,353,700</b>	<b>\$ 14,602,400</b>	<b>3.0%</b>	<b>\$ 516,394,400</b>	<b>\$ 531,886,200</b>	<b>\$ 547,842,700</b>

### Schedule 1C – Combined Water and Sewer System Revenue Requirements Budget

Combined Water & Sewer System Revenue Requirements	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Revenues</b>										
Revenues from Charges	\$ 802,454,500	\$ 817,969,700	\$ 15,515,200	1.9%	\$ 844,090,000	\$ 26,120,300	3.2%	\$ 869,607,800	\$ 896,111,700	\$ 923,379,800
Non-Operating Revenue	17,815,000	10,423,600	(7,391,400)	-41.5%	9,155,100	(1,268,500)	-12.2%	9,234,700	9,095,800	8,984,000
<b>Total Revenues</b>	<b>\$ 820,269,500</b>	<b>\$ 828,393,300</b>	<b>\$ 8,123,800</b>	<b>1.0%</b>	<b>\$ 853,245,100</b>	<b>\$ 24,851,800</b>	<b>3.0%</b>	<b>\$ 878,842,500</b>	<b>\$ 905,207,500</b>	<b>\$ 932,363,800</b>
<b>Revenue Requirements</b>										
Operations & Maintenance (O&M) Expense	\$ 318,547,700	\$ 322,073,400	\$ 3,525,700	1.1%	\$ 328,577,100	\$ 6,503,700	2.0%	\$ 335,012,500	\$ 341,782,800	\$ 348,490,300
General Retirement System Legacy Pension	16,872,000	16,872,000	-	0.0%	16,872,000	-	0.0%	16,872,000	-	-
Debt Service	353,296,400	352,929,800	(366,600)	-0.1%	356,589,500	3,659,700	1.0%	369,013,900	391,800,800	383,870,400
General Retirement System Accelerated Pension	17,889,000	17,889,000	-	0.0%	17,889,000	-	0.0%	17,889,000	8,117,300	10,644,600
Water Residential Assistance Program Contribution	4,101,300	4,084,500	(16,800)	-0.4%	4,266,300	181,800	4.5%	4,394,200	4,526,000	4,661,800
Lease Payment	50,000,000	50,000,000	-	0.0%	50,000,000	-	0.0%	50,000,000	50,000,000	50,000,000
Extraordinary Repair & Replacement Deposit	-	-	-	0.0%	-	-	0.0%	-	-	-
Operating Reserve Deposit	3,976,000	876,600	(3,099,400)	-78.0%	2,167,900	1,291,300	147.3%	2,145,200	2,256,800	2,235,900
Improvement & Extension Fund Transfer Pending	55,587,100	63,668,000	8,080,900	14.5%	76,883,300	13,215,300	20.8%	83,515,700	106,723,800	132,460,800
<b>Annual Revenue Requirements</b>	<b>\$ 820,269,500</b>	<b>\$ 828,393,300</b>	<b>\$ 8,123,800</b>	<b>1.0%</b>	<b>\$ 853,245,100</b>	<b>\$ 24,851,800</b>	<b>3.0%</b>	<b>\$ 878,842,500</b>	<b>\$ 905,207,500</b>	<b>\$ 932,363,800</b>

### Schedule 2 – Operations & Maintenance Expense Budget

The following schedules in section 2 provide an overview of the operations & maintenance (O&M) expenses budget in three different ways: a) by expense type, b) by service area, and c) by fund. More in-depth analysis of the O&M budgets is presented on the Operating Area Financial Plans in **Section 3 – Operating Financial Plans** and **Section 4 – Supplemental Analysis**.

**Operations and Maintenance Budget by Expense Type:** Schedule 2A identifies the major categories of expenses and the variance from the prior year for FY 2021 and FY 2022. A commentary of the major categories follows the table on the next page.

## Schedule 2A – Operations & Maintenance Expense by Expense Type (Water and Sewer Combined)

Operations & Maintenance Expense	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.1 Salaries & Wages	\$ 68,232,500	\$ 32,256,900	\$ 70,761,000	\$ 2,528,500	3.7%	\$ 71,607,100	\$ 846,100	1.2%	\$ 71,793,100	\$ 71,796,300	\$ 71,799,500
2.2 Workforce Development	1,001,200	455,900	948,400	(52,800)	-5.3%	948,400	-	0.0%	913,800	896,900	863,100
2.3 Overtime	6,153,300	3,691,100	6,988,000	834,700	13.6%	7,000,300	12,300	0.2%	7,000,300	7,000,300	7,000,300
2.4 Employee Benefits	22,957,400	12,696,600	24,475,400	1,518,000	6.6%	25,202,800	727,400	3.0%	25,715,700	26,184,300	26,644,400
2.5 Transition Services	6,048,000	2,677,200	7,160,300	1,112,300	18.4%	7,370,300	210,000	2.9%	7,370,300	7,370,300	7,370,300
Total Personnel Costs	104,392,400	51,777,700	110,333,100	5,940,700	5.7%	112,128,900	1,795,800	1.6%	112,793,200	113,248,100	113,677,600
3.1 Electric	38,385,700	20,993,900	39,240,000	854,300	2.2%	39,498,800	258,800	0.7%	39,763,300	40,022,100	40,283,400
3.2 Gas	6,450,600	2,597,100	6,629,000	178,400	2.8%	6,735,700	106,700	1.6%	6,845,300	6,961,000	7,074,600
3.3 Sewage Service	1,846,600	996,300	2,119,800	273,200	14.8%	2,146,200	26,400	1.2%	2,173,800	2,205,700	2,233,400
3.4 Water Service	3,657,800	1,650,700	3,948,200	290,400	7.9%	4,023,500	75,300	1.9%	4,099,800	4,182,200	4,261,600
Total Utilities Costs	50,340,700	26,238,000	51,937,000	1,596,300	3.2%	52,404,200	467,200	0.9%	52,882,200	53,371,000	53,853,000
4.1 Chemicals	13,898,600	7,065,400	13,419,800	(478,800)	-3.4%	13,551,600	131,800	1.0%	13,699,300	13,785,600	13,836,800
4.2 Supplies & Other	32,422,300	14,190,800	33,117,500	695,200	2.1%	32,276,800	(840,700)	-2.5%	34,339,100	36,336,400	35,861,500
4.3 Contractual Services	107,012,400	50,054,800	106,154,600	(857,800)	-0.8%	106,385,500	230,900	0.2%	104,336,600	103,253,400	103,003,400
5.1 Capital Program Allocation	(3,515,400)	(1,442,500)	(3,447,700)	67,700	-1.9%	(3,462,400)	(14,700)	0.4%	(3,477,100)	(3,987,500)	(3,506,400)
5.2 Shared Services	(5,089,400)	(2,650,500)	(3,412,900)	1,676,500	-32.9%	(1,777,700)	1,635,200	-47.9%	(1,813,300)	(1,849,700)	(1,886,700)
6.0 Capital Outlay	4,840,500	2,310,900	5,503,300	662,800	13.7%	5,998,800	495,500	9.0%	4,906,500	5,406,500	4,930,000
7.0 Unallocated Reserve	14,245,600	-	8,468,700	(5,776,900)	-40.6%	11,071,400	2,602,700	30.7%	17,346,000	22,219,000	28,721,100
Total Other Categories	163,814,600	69,528,900	159,803,300	(4,011,300)	-2.4%	164,044,000	4,240,700	2.7%	169,337,100	175,163,700	180,959,700
<b>Grand Total</b>	<b>\$ 318,547,700</b>	<b>\$ 147,544,600</b>	<b>\$ 322,073,400</b>	<b>\$ 3,525,700</b>	<b>1.1%</b>	<b>\$ 328,577,100</b>	<b>\$ 6,503,700</b>	<b>2.0%</b>	<b>\$ 335,012,500</b>	<b>\$ 341,782,800</b>	<b>\$ 348,490,300</b>

**Personnel Costs** are the second largest expense. It includes traditional categories (salaries & wages, overtime, and benefits) in addition to two unique categories. The first is “Contractual Transition Services” which represents the use of contractual and/or temp to hire personnel that are placed in positions that would otherwise be filled by employees. While progress has been made in filling several positions, the tight labor market has presented a challenge in the recruitment process. The second category listed in the table is “Workforce Development”. In order to overcome the labor shortage, the GLWA partnered with Focus Hope and others to implement an apprenticeship program during the latter half of FY 2017. This program, having received positive feedback, will be continued in future years.

**Utilities** costs are the third largest expense and are a strategic target for optimization through energy management efforts and improved review of billings. See further analysis of utilities in **Section 4 – Supplemental Analysis (Utilities)**.

**Contractual Services** are the single largest category of expenses. This is not unusual for a large utility like the GLWA. This is a broad category that spans all groups from engineering, legal, operations, planning, information technology, and finance.

**Capital Program Allocation** denotes a portion of O&M expenses that are properly allocable to capital program management overhead based on staff time and task tracking. These costs are capitalized as part of the construction project.



**Shared Services** accounts for recoverable O&M costs pursuant to a shared services agreement executed in December 2015 with the City of Detroit. Shared services largely fall in the Information Technology, Systems Operations Control, Security, and Treasury budgets. See further analysis of shared services in **Section 4 – Supplemental Analysis (Shared Services)**.

**Capital Outlay** (O&M) are for equipment and tools, over \$5,000, that are tagged and tracked for internal control purposes and are not capitalized as an asset. See further analysis of the Capital Outlay Plan in **Section 6 – Capital Investment**.

**Unallocated Reserve** reflects a reserve for unforeseen operational needs. This allows for the removal of contingencies which were previously budgeted within individual cost center line items and provides assurance to operators that sufficient funds exist if emergencies arise such as emergency repairs and costs of new initiatives and items not known at the time of the budgeting process. The provision for wage and benefit adjustments, which are based on merit increases, are also included in this category.

**Operations and Maintenance Budget by Service Area:** Schedule 2B depicts how similar cost centers are grouped and managed by the GLWA. There are four broad categories as listed and defined below.

- A) **Water System Operations** are the direct operational activities to ensure the delivery of quality water, operation of five water treatment plants, 19 pumping stations, engineering, laboratory services, and management of those activities.
- B) **Wastewater (Sewer) System Operations** include direct operational wastewater activities related to operations (process control, primary, secondary, dewatering, and incineration), biosolids dryer facility and hauling, engineering, industrial waste control, laboratory services, one water resource recovery facility, eight combined sewer overflow facilities, nine pumping stations, and management of those facilities. In addition, GLWA maintains one pumping station and one CSO on behalf of DWSD pursuant to a shared service agreement.
- C) **Centralized Services** include operational functions that serve both Water and Wastewater (Sewer) Operations. This includes Planning Services (Chief Planning Officer, Systems Planning, Systems Analytics, Asset Management, and Capital Improvement Planning); Systems Control; Facility and Fleet Operations; Field Service Operations; Energy, Research & Innovation; Information Technology (Office of the Chief Information Officer, project management, service delivery, infrastructure, business productivity systems, enterprise asset management systems, and security & risk); and Security & Integrity/HazMat.
- D) **Administrative Services** include the Board of Directors, Chief Executive Officer, Chief Administrative and Compliance Officer (Risk Management & Safety), General Counsel, Public Affairs, Organizational Development, and Financial Services (Chief Financial Officer, Financial

Reporting & Accounting, Financial Planning & Analysis, Reporting & Compliance, Treasury, Public Finance, Procurement, Logistics & Materials, Owners' Representative, Data Analytics & Internal Audit, and Transformation).

The Centralized and Administrative Services areas act as an internal shared service to better manage resources and technical expertise. A supplemental section of this financial plan document, **Section 4 – Supplemental Analysis (Centralized & Admin Services Allocation)**, explains the cost allocation methodology. A review of the cost allocation methodology is conducted annually.

Schedule 2B, below, presents the categorization of O&M expenses by the four major categories defined above.

#### Schedule 2B – Operations & Maintenance Budget by Service Area

Group	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
A Water System Operations	\$ 66,021,100	\$ 71,966,400	\$ 5,945,300	9.0%	\$ 73,091,300	\$ 1,124,900	1.6%	\$ 75,667,700	\$ 77,941,400	\$ 81,132,200
B Sewer System Operations	115,985,300	115,676,400	(308,900)	-0.3%	118,194,100	2,517,700	2.2%	124,646,600	129,115,200	132,726,800
C Centralized Services	106,913,500	102,721,300	(4,192,200)	-3.9%	104,734,700	2,013,400	2.0%	101,578,500	100,978,600	100,260,600
D Administrative Services	29,627,800	31,709,300	2,081,500	7.0%	32,557,000	847,700	2.7%	33,119,700	33,747,600	34,370,700
<b>Total</b>	<b>\$ 318,547,700</b>	<b>\$ 322,073,400</b>	<b>\$ 3,525,700</b>	<b>1.1%</b>	<b>\$ 328,577,100</b>	<b>\$ 6,503,700</b>	<b>2.0%</b>	<b>\$ 335,012,500</b>	<b>\$ 341,782,800</b>	<b>\$ 348,490,300</b>

**Operations and Maintenance Budget by Fund:** After the Centralized and Administrative Services are allocated to the water and sewage disposal operations funds, the result of the above costs being allocated is shown below in Schedule 2C. The O&M expense with the Centralized and Administrative Services allocation agrees with **Schedule 1C – Revenue Requirements Budget** which is the basis for O&M expenses reflected in customer charges.

#### Schedule 2C – Operations & Maintenance Expense by Fund with Centralized & Administrative Services Allocated

System	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Water	\$ 131,490,500	\$ 137,127,300	\$ 5,636,800	4.3%	\$ 139,642,500	\$ 2,515,200	1.8%	\$140,985,200	\$143,284,900	\$146,442,600
Wastewater	187,057,200	184,946,100	(2,111,100)	-1.1%	188,934,600	3,988,500	2.2%	194,027,300	198,497,900	202,047,700
<b>Total</b>	<b>\$ 318,547,700</b>	<b>\$ 322,073,400</b>	<b>\$ 3,525,700</b>	<b>1.1%</b>	<b>\$ 328,577,100</b>	<b>\$ 6,503,700</b>	<b>2.0%</b>	<b>\$ 335,012,500</b>	<b>\$ 341,782,800</b>	<b>\$ 348,490,300</b>

**Schedule 3 – Sources of Revenues and Uses of Revenues – Flow of Funds Consistent with the Master Bond Ordinance**

While the prior schedules 1A, 1B, and 1C provide the GLWA budget as a wholesale provider of service, Schedule 3 is provided to demonstrate compliance with the pledge of establishing sufficient regional and local system revenues to service financial commitments consistent with the Master Bond Ordinance (MBO) Flow of Funds. Noteworthy items include the following.

- ❖ The analysis validates that GLWA has a financial plan in place to ensure that revenues are sufficient to fund debt service.
- ❖ Schedule 3 is reconciled to Schedules 1A and 1B to demonstrate that all line items in the budget plan for the biennial budget approved for FY 2021 & FY 2022 (Schedules 1A and 1B) are in alignment with the financial plan.
- ❖ The local system revenue is shown net of its regional system commitments demonstrating the local system has sufficient revenues for local system operations as well as the local debt service and legacy commitments.
- ❖ The legacy pension commitment was a result of the City of Detroit's Chapter 9 Plan of Adjustment approved in December 2014. At the time of the operational start-up of the GLWA, that liability was allocated between GLWA and DWSD based on an agreed upon allocation that was formalized on January 24, 2017. Monthly funding of the annual payment for that liability occurs through the flow of funds. Schedule 3 confirms that both GLWA and DWSD have sufficient revenue to address that commitment as payments come due. It should be noted that a fixed annual payment amount was established through FY 2023 with an anticipated minimal tail pension liability in 2024. All parties (City of Detroit, Detroit General Retirement System, DWSD, and GLWA) continue to evaluate the amount of the City of Detroit General Retirement System (GRS) liability past 2023. **Section 4 – Supplemental Analysis (Legacy Commitments)** provides further information related to the pension system.
- ❖ The line item on Schedule 3 titled "Net Revenues Allocable to Regional System" quantifies GLWA's efforts to improve financial stability, debt service coverage ratio, cash position, and flexibility to meet future capital needs without maximum reliance on debt.
- ❖ The resolution adopting the FY 2021 and FY 2022 Biennial Budget (**Section 7 – Authorizing Resolutions**) affirms the annual debt service funding. See additional debt analysis in **Section 4 – Supplemental Analysis (Debt Management)**.
- ❖ All other known commitments are planned to be funded in accordance with supporting calculations and analysis. To the extent that there are any variances, they will be addressed with a budget amendment.

### Schedule 3 – Sources of Revenues and Uses of Revenues – Flow of Funds Consistent with the Master Bond Ordinance\*

Flow of Funds Basis	FY 2021 Water Fund Requested	FY 2021 Sewer Fund Requested	FY 2021 Combined (Informational Only)	FY 2022 Water Fund Requested	FY 2022 Sewer Fund Requested	FY 2022 Combined (Informational Only)
<b>Revenues</b>						
Regional System Wholesale Revenues - Suburban Wholesale Customer	\$ 314,252,200	\$ 291,050,000	\$ 605,302,200	\$ 324,775,000	\$ 300,027,900	\$ 624,802,900
Regional System Wholesale Revenues - Detroit Customers	22,555,400	190,112,100	212,667,500	23,310,700	195,976,400	219,287,100
<b>Total Regional System Wholesale Revenues</b>	<b>336,807,600</b>	<b>481,162,100</b>	<b>817,969,700</b>	<b>348,085,700</b>	<b>496,004,300</b>	<b>844,090,000</b>
DWSD Local System Revenues - Detroit Customers	72,508,900	100,125,100	172,634,000	74,426,400	111,413,300	185,839,700
Miscellaneous Revenue (Local System)	6,149,100	5,634,800	11,783,900	6,161,600	5,636,300	11,797,900
Non-Operating Revenue (Regional System)	4,834,400	5,589,200	10,423,600	3,805,700	5,349,400	9,155,100
<b>Total Revenues</b>	<b>\$ 420,300,000</b>	<b>\$ 592,511,200</b>	<b>\$ 1,012,811,200</b>	<b>\$ 432,479,400</b>	<b>\$ 618,403,300</b>	<b>\$ 1,050,882,700</b>
<b>Revenue Requirements</b>						
<b>Operations &amp; Maintenance Expense</b>						
Regional System Wholesale Expenses	\$ 137,127,300	\$ 184,946,100	\$ 322,073,400	\$ 139,642,500	\$ 188,934,600	\$ 328,577,100
Local System Expenses	35,833,900	69,915,700	105,749,600	37,186,700	72,429,900	109,616,600
GRS Pension allocable to Regional System	6,048,000	10,824,000	16,872,000	6,048,000	10,824,000	16,872,000
GRS Pension allocable to Local System	4,272,000	2,856,000	7,128,000	4,272,000	2,856,000	7,128,000
<b>Total Operations &amp; Maintenance Expense</b>	<b>183,281,200</b>	<b>268,541,800</b>	<b>451,823,000</b>	<b>187,149,200</b>	<b>275,044,500</b>	<b>462,193,700</b>
<i>Net Revenues after Operations &amp; Maintenance Expense</i>	<i>237,018,800</i>	<i>323,969,400</i>	<i>560,988,200</i>	<i>245,330,200</i>	<i>343,358,800</i>	<i>588,689,000</i>
<b>Non-operating Activities</b>						
Debt Service Allocable to Regional System	143,189,900	209,739,900	352,929,800	141,151,000	215,438,500	356,589,500
Debt Service Allocable to Local System	41,748,200	31,829,400	73,577,600	44,519,700	32,179,700	76,699,400
GRS Accelerated Pension from Regional System	6,268,300	11,620,700	17,889,000	6,268,300	11,620,700	17,889,000
GRS Accelerated Pension from Local System	4,427,400	3,066,800	7,494,200	4,427,400	3,066,800	7,494,200
WRAP Contribution from Regional System	1,669,400	2,415,100	4,084,500	1,759,500	2,506,800	4,266,300
WRAP Contribution from Local System	654,800	1,349,200	2,004,000	676,600	1,481,200	2,157,800
Contribution to Operating Reserves	876,600	-	876,600	838,400	1,329,500	2,167,900
<b>Total Nonoperating Activities</b>	<b>198,834,600</b>	<b>260,021,100</b>	<b>458,855,700</b>	<b>199,640,900</b>	<b>267,623,200</b>	<b>467,264,100</b>
<i>Net Revenues Available for Revenue Financed Capital</i>	<i>38,184,200</i>	<i>63,948,300</i>	<i>102,132,500</i>	<i>45,689,300</i>	<i>75,735,600</i>	<i>121,424,900</i>
<b>Reserve for Revenue Financed Capital from Net Revenues</b>						
Lease Payment to Local System I&E Account	14,221,700	24,242,800	38,464,500	12,005,600	27,500,000	39,505,600
Net Revenues Allocable to Local System	-	-	-	-	5,036,000	5,036,000
Net Revenues Allocable to Regional System	23,962,500	39,705,500	63,668,000	33,683,700	43,199,600	76,883,300
<b>Total Reserve for Revenue Financed Capital Both Systems</b>	<b>38,184,200</b>	<b>63,948,300</b>	<b>102,132,500</b>	<b>45,689,300</b>	<b>75,735,600</b>	<b>121,424,900</b>
<b>Total Revenue Requirements</b>	<b>\$ 420,300,000</b>	<b>\$ 592,511,200</b>	<b>\$ 1,012,811,200</b>	<b>\$ 432,479,400</b>	<b>\$ 618,403,300</b>	<b>\$ 1,050,882,700</b>

\*Rows highlighted in light grey in the above table are designed to align with the DWSD Budget (DWSD data preliminary at March 16, 2020).

## Schedule 4 – Debt Service Coverage Calculations Consistent with the Master Bond Ordinance

The Master Bond Ordinance and Michigan PA 94 of 1933 (the Revenue Bond Act) established the Required Coverage levels. Debt service coverage is calculated as Net Revenues divided by the Maximum Annual Debt Service requirements.

### Schedule 4 – Debt Service Coverage Calculations

	FY 2021 Water Fund Requested	FY 2021 Sewer Fund Requested	FY 2021 Combined (Informational Only)	FY 2022 Water Fund Requested	FY 2022 Sewer Fund Requested	FY 2022 Combined (Informational Only)
<b>Debt Service Coverage Calculation</b>						
<b>Revenues</b>						
1 Regional System Wholesale Revenues	\$ 336,807,600	\$ 481,162,100	\$ 817,969,700	\$ 348,085,700	\$ 496,004,300	\$ 844,090,000
2 Local System Revenues	72,508,900	100,125,100	172,634,000	74,426,400	111,413,300	185,839,700
3 Miscellaneous Revenue (Local System)	6,149,100	5,634,800	11,783,900	6,161,600	5,636,300	11,797,900
4 Non-Operating Revenue (Regional System)	4,834,400	5,589,200	10,423,600	3,805,700	5,349,400	9,155,100
<b>5 Total Revenues</b>	<b>\$ 420,300,000</b>	<b>\$ 592,511,200</b>	<b>\$ 1,012,811,200</b>	<b>\$ 432,479,400</b>	<b>\$ 618,403,300</b>	<b>\$ 1,050,882,700</b>
<b>Revenue Requirements</b>						
<b>Operations &amp; Maintenance Expense</b>						
6 Regional System Wholesale Expenses	\$ 137,127,300	\$ 184,946,100	\$ 322,073,400	\$ 139,642,500	\$ 188,934,600	\$ 328,577,100
7 Local System Expenses	35,833,900	69,915,700	105,749,600	37,186,700	72,429,900	109,616,600
8 GRS Pension allocable to Regional System	6,048,000	10,824,000	16,872,000	6,048,000	10,824,000	16,872,000
9 GRS Pension allocable to Local System	4,272,000	2,856,000	7,128,000	4,272,000	2,856,000	7,128,000
<b>10 Total Operations &amp; Maintenance Expense</b>	<b>183,281,200</b>	<b>268,541,800</b>	<b>451,823,000</b>	<b>187,149,200</b>	<b>275,044,500</b>	<b>462,193,700</b>
<b>11 Net Revenues after Operations &amp; Maintenance Expense</b>	<b>\$ 237,018,800</b>	<b>\$ 323,969,400</b>	<b>\$ 560,988,200</b>	<b>\$ 245,330,200</b>	<b>\$ 343,358,800</b>	<b>\$ 588,689,000</b>
<b>Debt Service by Lien</b>						
12 Senior Lien Bonds	\$ 130,616,400	\$ 132,686,600	\$ 263,303,000	\$ 133,195,400	\$ 144,396,500	\$ 277,591,900
13 Second Lien Bonds	49,280,800	54,642,000	103,922,800	44,683,600	48,104,300	92,787,900
14 SRF Junior Lien Bonds	5,040,900	54,240,700	59,281,600	7,791,700	55,117,400	62,909,100
<b>15 Total Debt Service</b>	<b>\$ 184,938,100</b>	<b>\$ 241,569,300</b>	<b>\$ 426,507,400</b>	<b>\$ 185,670,700</b>	<b>\$ 247,618,200</b>	<b>\$ 433,288,900</b>
<b>Debt Service Coverage</b>						
16 Senior Lien Bonds (11)/(12)	1.81	2.44		1.84	2.38	
17 Second Lien Bonds (11)/[(12)+(13)]	1.32	1.73		1.38	1.78	
18 SRF Junior Lien Bonds (11)/(15)	1.28	1.34		1.32	1.39	

\*\*Rows highlighted in light grey in the above table are designed to align with the DWSD Budget (DWSD data preliminary at March 16, 2020).

## Schedule 5 – Improvement & Extension Funds and Construction Bond Funds

**Improvement & Extension Funds:** The tables on the following page present the FY 2021 and FY 2022 biennial budgets and five-year financial plan for the separate Improvement & Extension (I&E) Funds for the water and sewer systems. See also **Section 6 – Capital Investment**.

### Inflows to the I&E Fund

- ❖ Transfers from the Revenue Receipts Fund in accordance with the Master Bond Ordinance and Financial Plan

- ❖ DWSD budget shortfall loan payments in accordance with a 2018 Memorandum of Understanding
- ❖ Interest earned on the I&E funds is returned to the flow of funds monthly as required by the Master Bond Ordinance.

### Outflows from the I&E Fund

- ❖ Capital outlay funding (generally non-construction capital outlay such as machinery, equipment, vehicles, and systems)
- ❖ Transfers to the Construction Fund for capital improvement plan projects to reduce the need of new revenue bonds and/or flexibility in timing for new bonds.

### Schedule 5A – Water Improvement & Extension Fund

Water Improvement & Extension Fund Inflows & Outflows	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Revenues</b>						
Water System Revenue Transfers In	\$ 30,125,500	\$ 23,962,500	\$ 33,683,700	\$ 28,248,900	\$ 35,766,400	\$ 38,561,400
Net Use of Reserves	24,999,800	68,929,500	65,076,500	2,178,500	(308,700)	1,186,600
<b>Total Revenues</b>	<b>\$ 55,125,300</b>	<b>\$ 92,892,000</b>	<b>\$ 98,760,200</b>	<b>\$ 30,427,400</b>	<b>\$ 35,457,700</b>	<b>\$ 39,748,000</b>
<b>Expenditures</b>						
Capital Outlay	\$ 10,125,300	\$ 17,892,000	\$ 13,760,200	\$ 5,427,400	\$ 5,457,700	\$ 4,748,000
Revenue Financed Capital - Operating						
Transfer to Construction Fund	45,000,000	75,000,000	85,000,000	25,000,000	30,000,000	35,000,000
<b>Total Expenditures</b>	<b>\$ 55,125,300</b>	<b>\$ 92,892,000</b>	<b>\$ 98,760,200</b>	<b>\$ 30,427,400</b>	<b>\$ 35,457,700</b>	<b>\$ 39,748,000</b>

### Schedule 5B – Sewer Improvement & Extension Fund

Sewer Improvement & Extension Fund Inflows & Outflows	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Revenues</b>						
Sewer System Revenue Transfers In	\$ 25,461,600	\$ 39,705,500	\$ 43,199,600	\$ 55,266,800	\$ 70,957,400	\$ 93,899,400
Receipt of DWSD Shortfall Loan	-	19,288,300	8,705,000	-	-	-
Net Use of Reserves	(5,339,400)	3,987,300	(1,109,900)	(511,600)	19,418,400	5,857,800
<b>Total Revenues</b>	<b>\$ 20,122,200</b>	<b>\$ 62,981,100</b>	<b>\$ 50,794,700</b>	<b>\$ 54,755,200</b>	<b>\$ 90,375,800</b>	<b>\$ 99,757,200</b>
<b>Expenditures</b>						
Capital Outlay	\$ 20,122,200	\$ 20,481,100	\$ 15,794,700	\$ 9,755,200	\$ 10,375,800	\$ 14,757,200
Revenue Financed Capital - Operating						
Transfer to Construction Fund	-	42,500,000	35,000,000	45,000,000	80,000,000	85,000,000
<b>Total Expenditures</b>	<b>\$ 20,122,200</b>	<b>\$ 62,981,100</b>	<b>\$ 50,794,700</b>	<b>\$ 54,755,200</b>	<b>\$ 90,375,800</b>	<b>\$ 99,757,200</b>



**Construction Funds:** The tables below present the FY 2021 and FY 2022 biennial budgets and five-year financial plan for the separate Construction Funds for the water and sewage disposal systems. See also **Section 6 – Capital Investment**.

#### Inflows to the Construction Fund

- ❖ Transfers from the Improvement & Extension Fund for capital improvement plan projects and reduction of new revenue bonds
- ❖ Issuance of new bonds
- ❖ Interest earned on investments

#### Outflows from the Construction Fund

- ❖ Capital Improvement Plan projects and other large capital initiatives authorized by the Chief Executive Officer
- ❖ Capital Spend Rate Adjustment – The Board of Directors adopts a capital spending ratio assumption (SRA) which allows the realities of capital program delivery to align with the financial plan. The SRA is an analytical approach to bridge the total dollar amount of projects in the CIP with what can realistically be spent due to limitations beyond GLWA's control and/or delayed for nonbudgetary reasons. Those limitations, whether financial or non-financial, necessitate the SRA for budgetary purposes, despite the prioritization established.
- ❖ The GLWA Capital Improvement Plan document is available online at <https://www.glwater.org/CIP/>

#### Schedule 5C – Water Construction Fund

Water Construction Fund Inflows & Outflows	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Revenues</b>						
Transfers from Improvement & Extension Fund	\$ 45,000,000	\$ 75,000,000	\$ 85,000,000	\$ 25,000,000	\$ 30,000,000	\$ 35,000,000
Bond Proceeds	-	-	-	249,100,000	-	183,300,000
Grant Revenues (SRF Loans)	5,531,000	12,365,800	16,590,200	18,889,800	18,549,900	18,956,600
Earnings on Investments	1,487,700	820,400	376,100	242,100	1,411,000	601,300
Net Use of Reserves	55,416,600	22,486,800	32,972,700	(141,812,900)	109,679,100	(92,969,900)
<b>Total Revenues</b>	<b>\$ 107,435,300</b>	<b>\$ 110,673,000</b>	<b>\$ 134,939,000</b>	<b>\$ 151,419,000</b>	<b>\$ 159,640,000</b>	<b>\$ 144,888,000</b>
<b>Expenditures</b>						
Capital Improvement Plan	\$ 143,247,000	\$ 147,564,000	\$ 179,918,000	\$ 201,892,000	\$ 212,853,000	\$ 193,184,000
Capital Spend Rate Adjustment	(35,811,700)	(36,891,000)	(44,979,000)	(50,473,000)	(53,213,000)	(48,296,000)
<b>Total Expenditures</b>	<b>\$ 107,435,300</b>	<b>\$ 110,673,000</b>	<b>\$ 134,939,000</b>	<b>\$ 151,419,000</b>	<b>\$ 159,640,000</b>	<b>\$ 144,888,000</b>

### Schedule 5D – Sewer Construction Fund

Sewer Construction Fund Inflows & Outflows	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Revenues</b>						
Transfers from Improvement & Extension Fund	\$ -	\$ 42,500,000	\$ 35,000,000	\$ 45,000,000	\$ 80,000,000	\$ 85,000,000
Bond Proceeds	78,960,000	-	-	150,400,000	6,580,000	89,300,000
Grant Revenues (SRF Loans)	29,342,000	33,200,000	15,112,000	13,500,000	-	-
Earnings on Investments	41,100	497,700	327,800	296,900	1,222,400	776,700
Net Use of Reserves	12,766,900	6,781,300	34,128,200	(103,564,900)	64,641,600	(46,122,700)
<b>Total Revenues</b>	<b>\$ 121,110,000</b>	<b>\$ 82,979,000</b>	<b>\$ 84,568,000</b>	<b>\$ 105,632,000</b>	<b>\$ 152,444,000</b>	<b>\$ 128,954,000</b>
<b>Expenditures</b>						
Capital Improvement Plan	\$ 161,479,900	\$ 110,638,000	\$ 112,757,000	\$ 140,843,000	\$ 203,258,000	\$ 171,939,000
Capital Spend Rate Adjustment	(40,369,900)	(27,659,000)	(28,189,000)	(35,211,000)	(50,814,000)	(42,985,000)
<b>Total Expenditures</b>	<b>\$ 121,110,000</b>	<b>\$ 82,979,000</b>	<b>\$ 84,568,000</b>	<b>\$ 105,632,000</b>	<b>\$ 152,444,000</b>	<b>\$ 128,954,000</b>

# Section 3 Operating Financial Plans

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The GLWA's operating area financial plans provide the bridge from the operating units' objectives with the overall GLWA mission. The operating area plan also ensures that the organization is financially sound by aligning the allocation of resources across all levels of GLWA. This coordination requires a high level of preparation and interaction from both within and outside of the organization. Sound approaches to financial planning are imperative for ensuring long-term success in today's complex environment. The GLWA has prepared a balanced and responsible operating budget for fiscal years 2021 and 2022 and the forecasted financial plan for fiscal years 2023 through 2025. This section and the tables below represent the operating area financial plan summary for the following areas.

- A. Water System Operations
- B. Wastewater (Sewer) System Operations
- C. Centralized Services
- D. Administrative & Other Services

#### *Budget by Operating Area with Percentage Change from Prior Year*

Operating Area	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
A Water System Operations	\$ 66,021,100	\$ 34,779,400	\$ 71,966,400	\$ 5,945,300	9.0%	\$ 73,091,300	\$ 1,124,900	1.6%	\$ 75,667,700	\$ 77,941,400	\$ 81,132,200
B Sewer System Operations	115,985,300	52,751,400	115,676,400	(308,900)	-0.3%	118,194,100	2,517,700	2.2%	124,646,600	129,115,200	132,726,800
C Centralized Services	106,913,500	45,836,300	102,721,300	(4,192,200)	-3.9%	104,734,700	2,013,400	2.0%	101,578,500	100,978,600	100,260,600
D Administrative Services	29,627,800	14,177,500	31,709,300	2,081,500	7.0%	32,557,000	847,700	2.7%	33,119,700	33,747,600	34,370,700
<b>Grand Total</b>	<b>\$ 318,547,700</b>	<b>\$ 147,544,600</b>	<b>\$ 322,073,400</b>	<b>\$ 3,525,700</b>	<b>1.1%</b>	<b>\$ 328,577,100</b>	<b>\$ 6,503,700</b>	<b>2.0%</b>	<b>\$ 335,012,500</b>	<b>\$ 341,782,800</b>	<b>\$ 348,490,300</b>

#### *Budget by Water System Operations Area and Related Cost Centers*

A Water System Operations by Cost Center	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Adams Road Pumping Station	\$ 520,000	\$ 303,500	\$ 605,000	\$ 85,000	16.3%	\$ 605,000	\$ -	0.0%	\$ 605,000	\$ 605,000	\$ 605,000
COO - Water Operations & Field Services	373,100	219,500	462,900	89,800	24.1%	465,400	2,500	0.5%	468,000	469,600	471,200
Cost Clearing - Inventory - General	-	(20,000)	-	-	0.0%	-	-	0.0%	-	-	-
Eastside Pumping Station	43,000	21,100	53,000	10,000	23.3%	53,000	-	0.0%	53,000	53,000	53,000
Electric Ave Pumping Station	25,500	13,000	19,500	(6,000)	-23.5%	19,500	-	0.0%	19,500	19,500	19,500
Ford Rd Pumping Station	394,600	265,100	423,700	29,100	7.4%	423,700	-	0.0%	423,700	423,700	423,700
Franklin Road Pumping Station	780,600	503,700	915,000	134,400	17.2%	915,000	-	0.0%	915,000	915,000	915,000
Haggerty Road Pumping Station	271,100	134,800	248,000	(23,100)	-8.5%	248,000	-	0.0%	248,000	248,000	248,000
Imlay Pumping Station	1,805,300	1,535,800	2,305,000	499,700	27.7%	2,305,000	-	0.0%	2,305,000	2,305,000	2,305,000
Joy Road Pumping Station	592,300	363,600	657,500	65,200	11.0%	657,500	-	0.0%	657,500	657,500	657,500
Lake Huron Water Plant	11,883,100	6,234,500	12,031,300	148,200	1.2%	12,043,900	12,600	0.1%	12,056,500	12,069,000	12,081,400
Michigan Ave Pumping Station	90,800	66,600	102,000	11,200	12.3%	102,000	-	0.0%	102,000	102,000	102,000
Newburgh Pumping Station	382,300	182,000	390,000	7,700	2.0%	390,000	-	0.0%	390,000	390,000	390,000
North Service Center Pumping Station	1,927,000	1,242,800	2,416,000	489,000	25.4%	2,416,000	-	0.0%	2,416,000	2,416,000	2,416,000
Northeast Water Plant	9,356,600	4,952,700	10,229,900	873,300	9.3%	10,242,500	12,600	0.1%	10,259,800	10,272,500	10,276,700
Northwest Pumping Station	17,000	17,200	27,000	10,000	58.8%	27,000	-	0.0%	27,000	27,000	27,000
Orion Township Pumping Station	81,500	40,400	74,500	(7,000)	-8.6%	74,500	-	0.0%	74,500	74,500	74,500
Rochester Pumping Station	174,200	179,500	231,000	56,800	32.6%	231,000	-	0.0%	231,000	231,000	231,000
Roseville Pumping Station	10,300	-	-	(10,300)	-100.0%	-	-	0.0%	-	-	-
Schoolcraft Pumping Station	401,300	234,600	416,000	14,700	3.7%	416,000	-	0.0%	416,000	416,000	416,000
Southwest Water Plant	8,575,500	3,144,000	9,407,500	832,000	9.7%	9,424,900	17,400	0.2%	9,442,500	9,454,800	9,467,000
Springwells Water Plant	12,147,800	7,412,700	13,631,400	1,483,600	12.2%	13,707,100	75,700	0.6%	13,782,900	13,797,400	13,809,800
Water Director	1,628,200	656,800	1,724,200	96,000	5.9%	1,729,700	5,500	0.3%	1,735,200	1,740,600	1,746,100
Water Engineering	1,672,300	819,100	1,360,900	(311,400)	-18.6%	1,365,100	4,200	0.3%	1,369,200	1,373,400	1,377,600
Water Quality	1,938,100	982,300	1,944,700	6,600	0.3%	1,929,400	(15,300)	-0.8%	1,938,100	1,970,800	1,955,600
Water Works Park	8,783,400	4,383,500	8,729,500	(53,900)	-0.6%	8,729,200	(300)	0.0%	8,748,600	8,763,300	8,778,000
West Chicago Rd Pumping Station	51,000	17,800	36,000	(15,000)	-29.4%	36,000	-	0.0%	36,000	36,000	36,000
West Service Center Pumping Station	720,000	403,600	799,300	79,300	11.0%	799,700	400	0.1%	800,100	800,100	800,100
Wick Road Pumping Station	551,000	289,400	589,500	38,500	7.0%	599,000	9,500	1.6%	608,500	608,500	608,500
Ypsilanti Pumping Station	353,300	179,800	406,800	53,500	15.1%	413,200	6,400	1.6%	419,600	419,600	419,600
Water System Operations Unallocated Reserve	470,900	-	1,729,300	1,258,400	267.2%	2,723,000	993,700	57.5%	5,119,500	7,282,600	10,421,400
<b>Grand Total</b>	<b>\$ 66,021,100</b>	<b>\$ 34,779,400</b>	<b>\$ 71,966,400</b>	<b>\$ 5,945,300</b>	<b>9.0%</b>	<b>\$ 73,091,300</b>	<b>\$ 1,124,900</b>	<b>1.6%</b>	<b>\$ 75,667,700</b>	<b>\$ 77,941,400</b>	<b>\$ 81,132,200</b>

### Budget by Sewer System Operations Area and Related Cost Centers

	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>B Sewer System Operations by Cost Center</b>											
<b>Wastewater Operations Group</b>											
7 Mile Combined Sewer Overflow	\$ 130,300	\$ 102,800	\$ 152,100	\$ 21,800	16.7%	\$ 154,400	\$ 2,300	1.5%	\$ 157,100	\$ 159,500	\$ 156,400
Baby Creek Combined Sewer Overflow	2,974,900	353,000	1,119,800	(1,855,100)	-62.4%	878,200	(241,600)	-21.6%	2,443,800	3,968,800	3,801,600
BDF, COF & Hauling	20,266,000	9,790,200	20,297,500	31,500	0.2%	20,438,100	140,600	0.7%	20,541,400	20,688,700	20,787,100
Belle Isle Combined Sewer Overflow	-	(6,800)	(400)	(400)	0.0%	(5,800)	(5,400)	1350.0%	(6,100)	13,600	(6,800)
Chief Operating Officer Wastewater	2,507,800	823,000	2,667,300	159,500	6.4%	2,695,000	27,700	1.0%	2,722,700	2,751,500	2,779,000
Combined Sewer Overflow	4,406,300	2,085,400	4,677,400	271,100	6.2%	4,725,900	48,500	1.0%	4,748,900	4,306,900	4,846,400
Connor Creek Combined Sewer Overflow	1,250,100	1,574,900	1,268,200	18,100	1.4%	1,279,300	11,100	0.9%	1,304,900	1,317,400	1,329,500
Hubble Southfield CSO	472,400	268,700	447,800	(24,600)	-5.2%	453,500	5,700	1.3%	462,500	468,300	474,800
Industrial Waste Control	2,407,200	1,158,500	2,496,300	89,100	3.7%	2,511,500	15,200	0.6%	2,573,900	2,575,900	2,719,600
Leib Combined Sewer Overflow	145,800	249,400	152,000	6,200	4.3%	153,900	1,900	1.3%	156,200	158,000	160,600
Oakwood Combined Sewer Overflow	1,306,300	833,700	1,280,000	(26,300)	-2.0%	1,271,100	(8,900)	-0.7%	1,476,500	1,318,600	1,371,200
Puritan Fennell Combined Sewer Overflow	293,000	162,800	301,100	8,100	2.8%	307,200	6,100	2.0%	313,500	320,000	324,700
St Aubin Combined Sewer Overflow	165,900	119,600	140,300	(25,600)	-15.4%	141,900	1,600	1.1%	144,300	146,200	148,200
Wastewater Dewatering Process	5,406,700	3,509,600	6,176,300	769,600	14.2%	6,220,200	43,900	0.7%	6,265,000	6,353,700	6,443,500
Wastewater Director	5,285,600	2,100,200	5,136,200	(149,400)	-2.8%	5,285,300	149,100	2.9%	5,313,900	5,342,900	5,372,500
Wastewater Engineering	2,202,500	814,500	2,453,300	250,800	11.4%	2,563,500	110,200	4.5%	2,818,200	2,568,700	2,577,200
Wastewater Incineration Process	4,724,000	2,156,800	5,167,800	443,800	9.4%	5,310,600	142,800	2.8%	5,359,100	5,408,200	5,458,800
Wastewater Laboratories	4,447,900	2,273,100	4,558,500	110,600	2.5%	4,195,500	(363,000)	-8.0%	4,230,700	4,260,400	4,289,100
Wastewater Operations	26,412,000	12,539,000	26,683,500	271,500	1.0%	27,334,400	650,900	2.4%	27,850,500	28,379,600	28,947,700
Wastewater Primary Process	7,463,600	3,686,900	7,836,000	372,400	5.0%	8,013,900	177,900	2.3%	8,045,900	8,077,800	8,085,600
Wastewater Process Control	4,145,600	1,695,400	5,229,700	1,084,100	26.2%	5,374,900	145,200	2.8%	5,359,500	5,615,000	4,583,300
Wastewater Secondary Process	10,479,900	5,015,800	9,847,600	(632,300)	-6.0%	9,940,800	93,200	0.9%	10,096,200	10,183,000	10,236,300
Wastewater System Operations Unallocated Reserve	6,264,900	-	4,603,900	(1,661,000)	-26.5%	5,971,800	1,367,900	29.7%	9,294,300	11,764,100	14,876,100
<b>Total Wastewater Operations Group</b>	<b>113,158,700</b>	<b>51,316,500</b>	<b>112,692,200</b>	<b>(466,500)</b>	<b>-0.4%</b>	<b>115,215,100</b>	<b>2,522,900</b>	<b>2.2%</b>	<b>121,672,900</b>	<b>126,146,800</b>	<b>129,762,400</b>
<b>Wastewater Pump Stations</b>											
Belle Isle Pumping Station	-	(14,900)	(6,000)	(6,000)	0.0%	(6,700)	(700)	11.7%	(7,500)	(8,300)	(9,500)
Blue Hill Pumping Station	-	82,600	132,500	132,500	0.0%	131,000	(1,500)	-1.1%	129,500	127,900	126,300
Conner Pumping Station	899,400	337,100	870,000	(29,400)	-3.3%	870,000	-	0.0%	870,000	870,000	870,000
Fairview Pumping Station	680,200	255,700	535,000	(145,200)	-21.3%	535,000	-	0.0%	535,000	535,000	535,000
Fischer Pumping Station	-	(3,200)	(5,100)	(5,100)	0.0%	(5,300)	(200)	3.9%	(5,400)	(5,500)	(5,800)
Fox Creek Pumping Station	18,500	300	2,000	(16,500)	-89.2%	2,000	-	0.0%	2,000	2,000	2,000
Freud Pumping Station	281,600	229,200	357,500	75,900	27.0%	357,500	-	0.0%	357,500	357,500	357,500
Northeast Pumping Station	750,000	497,700	748,000	(2,000)	-0.3%	746,000	(2,000)	-0.3%	743,900	741,800	741,800
Oakwood Pumping Station	196,900	42,200	283,000	86,100	43.7%	283,000	-	0.0%	283,000	283,000	283,000
Woodmere Pumping Station	-	8,200	67,300	67,300	0.0%	66,500	(800)	-1.2%	65,700	65,000	64,100
<b>Total Wastewater Pump Stations</b>	<b>2,826,600</b>	<b>1,434,900</b>	<b>2,984,200</b>	<b>157,600</b>	<b>5.6%</b>	<b>2,979,000</b>	<b>(5,200)</b>	<b>-0.2%</b>	<b>2,973,700</b>	<b>2,968,400</b>	<b>2,964,400</b>
<b>Grand Total</b>	<b>\$ 115,985,300</b>	<b>\$ 52,751,400</b>	<b>\$ 115,676,400</b>	<b>\$ (308,900)</b>	<b>-0.3%</b>	<b>\$ 118,194,100</b>	<b>\$ 2,517,700</b>	<b>2.2%</b>	<b>\$ 124,646,600</b>	<b>\$ 129,115,200</b>	<b>\$ 132,726,800</b>

### Budget by Centralized Services Operating Area and Related Cost Centers

	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>C Centralized Services by Cost Center</b>											
<b>Planning Services</b>											
Asset Management	\$ 3,190,100	\$ 1,254,800	\$ 3,693,900	\$ 503,800	15.8%	\$ 4,370,200	\$ 676,300	18.3%	\$ 5,370,200	\$ 4,815,000	\$ 5,644,600
Capital Improvement Planning	4,643,900	3,053,400	3,559,600	(1,084,300)	-23.3%	3,288,500	(271,100)	-7.6%	2,504,000	2,050,000	895,400
Chief Planning Officer	408,900	153,800	382,000	(26,900)	-6.6%	383,600	1,600	0.4%	385,200	386,900	388,500
Systems Analytics	7,455,700	2,538,400	6,552,200	(903,500)	-12.1%	6,612,100	59,900	0.9%	6,824,300	6,897,600	6,869,100
Systems Planning	3,433,100	1,855,400	2,960,700	(472,400)	-13.8%	3,046,900	86,200	2.9%	2,552,600	2,530,800	2,534,000
<b>Total Planning Services</b>	<b>19,131,700</b>	<b>8,855,800</b>	<b>17,148,400</b>	<b>(1,983,300)</b>	<b>-10.4%</b>	<b>17,701,300</b>	<b>552,900</b>	<b>3.2%</b>	<b>17,636,300</b>	<b>16,680,300</b>	<b>16,331,600</b>
<b>Systems Operations Control</b>	<b>10,039,800</b>	<b>4,465,300</b>	<b>9,958,700</b>	<b>(81,100)</b>	<b>-0.8%</b>	<b>9,969,200</b>	<b>10,500</b>	<b>0.1%</b>	<b>9,979,700</b>	<b>9,989,600</b>	<b>9,999,400</b>
<b>Facility Operations</b>	<b>6,600,000</b>	<b>3,630,800</b>	<b>6,188,300</b>	<b>(411,700)</b>	<b>-6.2%</b>	<b>6,181,200</b>	<b>(7,100)</b>	<b>-0.1%</b>	<b>6,194,200</b>	<b>6,204,000</b>	<b>6,213,900</b>
<b>Fleet Operations</b>	<b>2,034,500</b>	<b>1,079,500</b>	<b>2,109,000</b>	<b>74,500</b>	<b>3.7%</b>	<b>2,101,400</b>	<b>(7,600)</b>	<b>-0.4%</b>	<b>2,134,500</b>	<b>2,168,200</b>	<b>2,168,200</b>
<b>Field Service Operations</b>	<b>17,993,200</b>	<b>7,202,400</b>	<b>17,958,100</b>	<b>(35,100)</b>	<b>-0.2%</b>	<b>18,127,800</b>	<b>169,700</b>	<b>0.9%</b>	<b>18,297,800</b>	<b>18,326,000</b>	<b>18,354,500</b>
<b>Energy, Research &amp; Innovation</b>	<b>2,103,800</b>	<b>611,600</b>	<b>2,785,500</b>	<b>681,700</b>	<b>32.4%</b>	<b>2,787,800</b>	<b>2,300</b>	<b>0.1%</b>	<b>2,792,100</b>	<b>2,796,300</b>	<b>2,800,600</b>
<b>Information Technology</b>											
Info Tech Enterprise Asset Mgmt Systems	5,623,900	2,459,500	9,685,800	4,061,900	72.2%	9,811,200	125,400	1.3%	6,516,600	6,128,400	6,140,200
Info Tech Business Productivity Systems	3,966,200	979,400	2,570,600	(1,395,600)	-35.2%	2,139,600	(431,000)	-16.8%	2,152,700	2,145,800	2,163,200
Info Technology Infrastructure	19,432,500	11,169,800	19,802,900	370,400	1.9%	21,443,400	1,640,500	8.3%	21,182,000	21,675,400	21,156,500
Info Technology Security & Risk	403,200	129,500	459,800	56,600	14.0%	462,100	2,300	0.5%	464,300	466,500	468,600
Info Technology Service Delivery	3,807,700	1,122,200	3,875,200	67,500	1.8%	3,928,700	53,500	1.4%	3,994,500	4,080,300	4,085,600
InfoTechnology Project Management Office	1,622,600	672,300	1,704,200	81,600	5.0%	1,716,700	12,500	0.7%	1,729,300	1,742,000	1,747,700
Office of the CIO	976,700	412,700	878,200	(97,500)	-10.0%	882,200	4,000	0.5%	886,200	890,100	893,800
<b>Total Information Technology</b>	<b>35,831,800</b>	<b>16,945,400</b>	<b>38,976,700</b>	<b>3,144,900</b>	<b>8.8%</b>	<b>40,383,900</b>	<b>1,407,200</b>	<b>3.6%</b>	<b>36,925,600</b>	<b>37,128,500</b>	<b>36,655,600</b>
<b>Security &amp; Integrity</b>											
HazMat	1,545,500	796,600	1,594,200	48,700	3.2%	1,666,800	72,600	4.6%	1,625,500	1,639,700	1,663,300
Security and Integrity	4,253,600	2,248,900	4,365,200	111,600	2.6%	4,352,300	(12,900)	-0.3%	4,375,600	4,399,600	4,423,800
<b>Total Security &amp; Integrity</b>	<b>5,799,100</b>	<b>3,045,500</b>	<b>5,959,400</b>	<b>160,300</b>	<b>2.8%</b>	<b>6,019,100</b>	<b>59,700</b>	<b>1.0%</b>	<b>6,001,100</b>	<b>6,039,300</b>	<b>6,087,100</b>
<b>Centralized Services Unallocated Reserve</b>	<b>7,379,600</b>	<b>-</b>	<b>1,637,200</b>	<b>(5,742,400)</b>	<b>-77.8%</b>	<b>1,463,000</b>	<b>(174,200)</b>	<b>-10.6%</b>	<b>1,617,200</b>	<b>1,646,400</b>	<b>1,649,700</b>
<b>Grand Total</b>	<b>\$ 106,913,500</b>	<b>\$ 45,836,300</b>	<b>\$ 102,721,300</b>	<b>\$ (4,192,200)</b>	<b>-3.9%</b>	<b>\$ 104,734,700</b>	<b>\$ 2,013,400</b>	<b>2.0%</b>	<b>\$ 101,578,500</b>	<b>\$ 100,978,600</b>	<b>\$ 100,260,600</b>



*Budget by Administrative Services Operating Area and Related Cost Centers*

	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2022 Dollar Variance	FY 2022 Percent Variance	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>D Administrative Services by Cost Center</b>											
Board of Directors	\$ 177,000	\$ 61,700	\$ 197,600	\$ 20,600	11.6%	\$ 201,600	\$ 4,000	2.0%	\$ 205,600	\$ 209,700	\$ 213,900
Chief Executive Officer	632,700	286,000	663,000	30,300	4.8%	670,000	7,000	1.1%	676,700	683,900	690,800
<b>Chief Administrative and Compliance Officer</b>											
Chief Administrative Officer	936,600	350,900	1,123,600	187,000	20.0%	1,131,600	8,000	0.7%	1,139,700	1,154,700	1,163,100
Enterprise Risk Management and Safety	1,819,800	654,100	1,828,600	8,800	0.5%	1,832,200	3,600	0.2%	1,835,700	1,839,300	1,842,800
Enterprise Risk Mgt. Insurance Fund	2,411,300	2,021,200	2,634,100	222,800	9.2%	2,684,300	50,200	1.9%	2,734,400	2,785,500	2,874,400
<b>Total Chief Administrative &amp; Compliance Officer</b>	<b>5,167,700</b>	<b>3,026,200</b>	<b>5,586,300</b>	<b>418,600</b>	<b>8.1%</b>	<b>5,648,100</b>	<b>61,800</b>	<b>1.1%</b>	<b>5,709,800</b>	<b>5,779,500</b>	<b>5,880,300</b>
<b>General Counsel</b>	<b>3,038,900</b>	<b>1,459,700</b>	<b>3,111,200</b>	<b>72,300</b>	<b>2.4%</b>	<b>3,157,800</b>	<b>46,600</b>	<b>1.5%</b>	<b>3,205,100</b>	<b>3,303,900</b>	<b>3,354,300</b>
<b>Public Affairs</b>	<b>1,386,100</b>	<b>603,800</b>	<b>1,587,900</b>	<b>201,800</b>	<b>14.6%</b>	<b>1,593,200</b>	<b>5,300</b>	<b>0.3%</b>	<b>1,572,200</b>	<b>1,578,500</b>	<b>1,563,800</b>
<b>Organizational Development</b>	<b>4,366,400</b>	<b>1,623,700</b>	<b>4,421,200</b>	<b>54,800</b>	<b>1.3%</b>	<b>4,708,200</b>	<b>287,000</b>	<b>6.5%</b>	<b>4,746,900</b>	<b>4,835,000</b>	<b>4,995,100</b>
<b>Financial Services</b>											
Chief Financial Officer	805,100	409,900	828,900	23,800	3.0%	831,800	2,900	0.3%	834,500	837,300	840,100
Data Analytics & Internal Audit	618,200	306,400	750,500	132,300	21.4%	756,800	6,300	0.8%	763,000	769,600	775,900
Financial Planning & Analysis	1,309,200	615,600	1,358,600	49,400	3.8%	1,369,400	10,800	0.8%	1,380,500	1,391,600	1,402,800
Financial Reporting & Accounting	3,515,000	1,625,700	3,382,000	(133,000)	-3.8%	3,410,000	28,000	0.8%	3,430,900	3,453,100	3,475,900
Logistics and Materials	1,970,900	975,700	1,921,300	(49,600)	-2.5%	1,934,400	13,100	0.7%	1,947,400	1,977,400	1,991,000
Owners' Representative	639,100	299,900	590,300	(48,800)	-7.6%	594,200	3,900	0.7%	598,100	602,200	606,200
Procurement Director	2,678,300	1,344,700	3,111,600	433,300	16.2%	3,121,900	10,300	0.3%	3,143,500	3,160,900	3,179,500
Public Finance	967,000	504,200	1,014,300	47,300	4.9%	946,500	(67,800)	-6.7%	873,700	906,300	878,500
Reporting and Compliance	466,200	251,800	516,900	50,700	10.9%	519,200	2,300	0.4%	521,100	523,400	525,300
Transformation	1,045,600	379,900	1,339,900	294,300	28.1%	1,339,000	(900)	-0.1%	1,342,000	1,343,000	1,344,000
Treasury	714,200	402,600	829,500	115,300	16.1%	841,300	11,800	1.4%	853,700	866,400	879,400
<b>Total Financial Services</b>	<b>14,728,800</b>	<b>7,116,400</b>	<b>15,643,800</b>	<b>915,000</b>	<b>6.2%</b>	<b>15,664,500</b>	<b>20,700</b>	<b>0.1%</b>	<b>15,688,400</b>	<b>15,831,200</b>	<b>15,898,600</b>
<b>Administrative Services Unallocated Reserve</b>	<b>130,200</b>	<b>-</b>	<b>498,300</b>	<b>368,100</b>	<b>282.7%</b>	<b>913,600</b>	<b>415,300</b>	<b>83.3%</b>	<b>1,315,000</b>	<b>1,525,900</b>	<b>1,773,900</b>
<b>Grand Total</b>	<b>\$ 29,627,800</b>	<b>\$ 14,177,500</b>	<b>\$ 31,709,300</b>	<b>\$ 2,081,500</b>	<b>7.0%</b>	<b>\$ 32,557,000</b>	<b>\$ 847,700</b>	<b>2.7%</b>	<b>\$ 33,119,700</b>	<b>\$ 33,747,600</b>	<b>\$ 34,370,700</b>

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# Section 3A Water System Operations

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## Highlights

The Water Operations Area presently leads several strategic initiatives.

- ❖ **Maintain 100% water quality compliance**  
 Delivery of pure, safe drinking water is an essential to GLWA's mission.
- ❖ **Restructuring Water Production**  
 Continue implementation of 2015 Water Master Plan Update; specifically, those aspects which address excess production capacity.
- ❖ **Improve Capital Project Delivery**  
 Initiate Water Main Condition Assessment Program to ensure reliable water service.
- ❖ **Transmission Assessment & Rehabilitation**  
 Complete the designs and begin construction of water mains.
- ❖ **Improve Operational Reliability through Automation and Equipment Maintenance**
  - Plan implementation of water automation.
  - Support asset management to improve maintenance activities.

The table below shows how the water operations strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Water Operations Strategic Initiatives	Maintain 100% water quality compliance			x				x				x
	Restructuring Water Production			x	x	x						x
	Improve Capital Project Delivery			x	x							x
	Transmission Assessment & Rehabilitation			x	x							x
	Improve Operational Reliability through Automation and Equipment Maintenance	x	x	x	x	x						x

## Water Operations Contracts

The Water Operations budget contains several contractual services to ensure system reliability, timely distribution and delivery of high-quality and safe water that complies with drinking water regulations. Budgeted amounts beyond contract date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process. It should be noted that several contracts are shared by multiple areas of GLWA. In the chart below are the key contracts for these services.

Project Description	Comprehensive Corrosion Control Optimization Study	Aluminum Sulfate	Ovation Evergreen Upgrade	Liquid Chlorine	Alum Sludge Hauling	Switchgear Maintenance & Testing Services	As Needed: CIP Implementation Assistance & Related Services	Standby Generator Preventative Maintenance & Repair Contract	Job Order Contract - Construction, Environmental, Special Testing, Inspection & Technical Services	Total
Prime Consultant	Arcadis of Michigan, LLC	Chemtrade Chemicals	Emerson Process Management	JCI Jones Chemicals	Mobile Dredging & Video Pipe Inc	Motor City Electric	PMA Consultants LLC	TBD	Professional Service Industries Inc	
Contract #	1803705	1803685	SCO-1134	1803508	GLWA-CON-170	50817	GLWA-CS-166	1902433	GLWA-CS-201	
Contract Amount	\$6,931,619	\$3,317,750	\$14,000,000	\$1,795,500	\$15,298,560	\$14,248,320	\$11,300,000	\$1,835,475	\$1,400,000	
Contract End Date	11/08/24	07/01/22	07/11/21	03/31/22	03/31/21	11/20/20	01/08/21	01/01/23	07/05/21	
Pre-FY 2019 Spend	\$ -	\$ 2,002,704	\$ 228,242	\$ 408,786	\$ -	\$ 419,214	\$ -	\$ 291,658	\$ -	\$ 3,350,604
FY 2019 Actual	-	1,979,213	84,120	402,332	10,634,418	1,224,678	-	192,943	-	14,517,704
FY 2020 Budget	1,100,000	2,145,400	152,000	429,700	6,416,500	20,000	-	203,650	-	10,467,250
<b>FY 2021 Requested</b>	<b>1,100,000</b>	<b>1,950,000</b>	<b>250,000</b>	<b>382,400</b>	<b>8,082,600</b>	<b>1,143,000</b>	<b>100,000</b>	<b>187,000</b>	<b>84,700</b>	<b>13,279,700</b>
FY 2022 Requested	1,100,000	1,950,000	250,000	383,600	8,141,800	1,143,000	100,000	187,000	20,000	13,275,400
FY 2023 Requested	1,100,000	1,950,000	250,000	384,800	8,201,100	1,143,000	100,000	187,000	20,000	13,335,900
FY 2024 Requested	1,100,000	1,950,000	250,000	384,800	8,201,100	1,143,000	100,000	187,000	20,000	13,335,900
FY 2025 Requested	1,100,000	1,950,000	250,000	384,800	8,201,100	1,143,000	100,000	187,000	20,000	13,335,900
<b>Subtotal</b>	<b>\$ 6,600,000</b>	<b>\$15,877,317</b>	<b>\$ 1,714,362</b>	<b>\$3,161,218</b>	<b>\$ 57,878,618</b>	<b>\$ 7,378,892</b>	<b>\$ 500,000</b>	<b>\$ 1,623,251</b>	<b>\$ 164,700</b>	<b>\$94,898,358</b>



## Organization

The Water Operations Area consists of four teams that contribute to producing and delivering 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.

### ❖ Administration

- Chief Operating Officer  
– Water Operations and Field Services
- Water Director
- Overall budget management including unallocated reserve

### ❖ Water Engineering

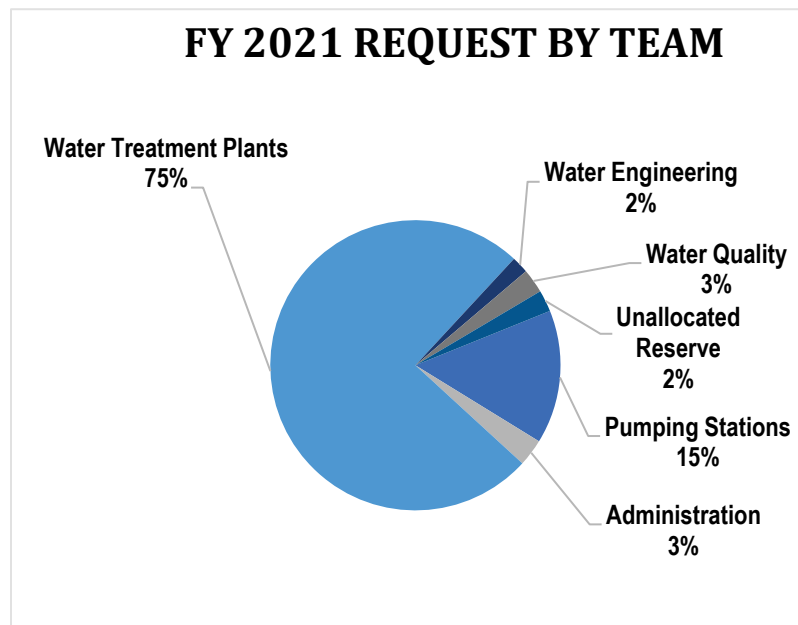
### ❖ Water Quality

### ❖ Water Treatment Plants

- Water Works Park
- Springwells WTP
- Northeast WTP
- Southwest WTP
- Lake Huron WTP

### ❖ Pumping Stations (water only)

- Nineteen (19) water booster stations and one (1) pump station (Roseville Pump Station) throughout the regional service area

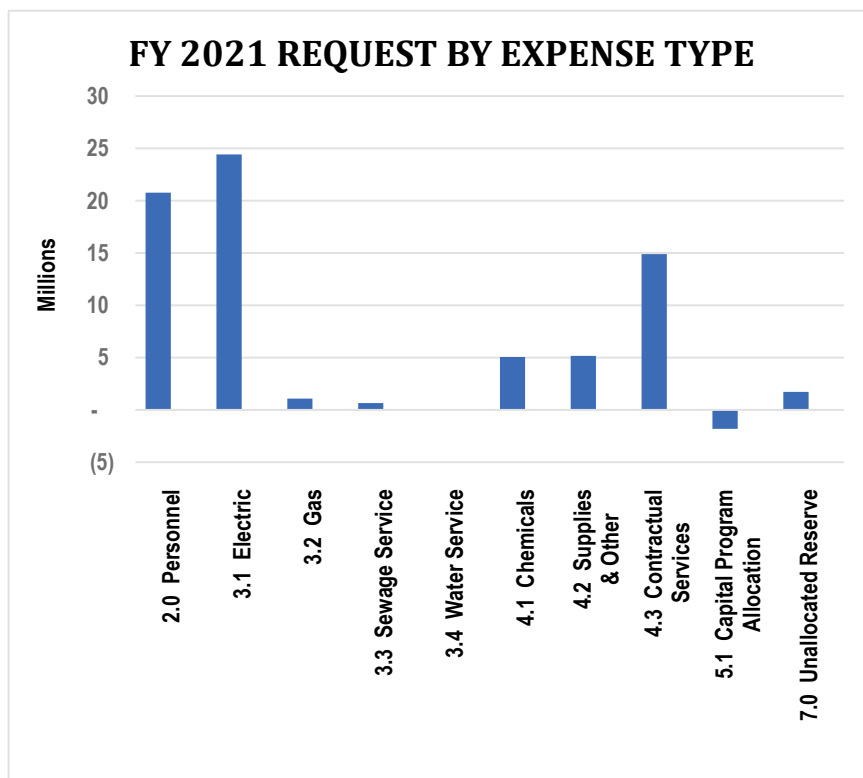


## Expense Categories

There are three major categories of Water Operations expenses in the Operations and Maintenance Budget as listed below.

- ❖ Electric Utilities
- ❖ Personnel Costs
- ❖ Contractual Services

The Electric Utilities is the highest expense category for Water Operations. Water demand leads to increased or decreased energy consumption in order to transport enough safe drinking water to the GLWA's communities. Energy consumption is dependent on flow rate, total pressure, climate (temperature extremes), and overall pump efficiency.



The Water Operations Area is required to obtain a consistent level of personnel in order to avoid staff fatigue, overtime cost, and to assure the highest level of water quality. Accordingly, personnel costs are the second highest expense category.

Contractual Services is the third highest expense category for Water Operations. The level of contractual services includes HVAC maintenance, janitorial services, ovation support (a reliable and innovative control system that integrates data from remote sites into a single, unified system, reducing complexity and minimizing maintenance), alum sludge hauling and corrosion control optimization studies.

**Biennial Budget Request**

The biennial budget reflects an overall increase in FY 2021 of \$5.9 million. Key factors that impact FY 2021 include the following.

- ❖ Staffing, as noted in the personnel budget section below, the staffing plan number is increasing by 3 to accommodate the higher level of expertise required in order to efficiently maintain water operations. Personnel budget increase of \$1.3 million in FY 2021 is a combination of actual salaries at the beginning of FY 2020 and new employee benefits calculation for FY 2021.
- ❖ Energy consumption fluctuates from year to year and is dependent on flow rate, total pressure, climate and overall pump efficiency (\$949,300)
- ❖ Contractual operating services (total increase \$1.7 million)
  - Switchgear maintenance and testing project for the 5 water treatment plants and water pumping stations. This project was realigned to be budgeted under the individual locations' budgets (entire contract previously budgeted under Systems Control). (\$864,000)
  - Alum sludge removal, hauling and disposal project (\$846,500)
- ❖ Unallocated Reserve requires a reasonable amount to provide for unforeseen expenditures and helps to ensure that adequate cash flow is available to meet the expected cost of Operations & Maintenance. It should be noted that the provision for wage and benefit adjustments is included in the annual unallocated O&M reserve. (\$932,100)

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 19,349,000	\$ 19,477,100	\$ 10,339,400	\$ 20,765,100	\$ 1,288,000	6.6%	\$ 20,859,400
3.1 Electric	24,391,800	23,468,500	13,635,100	24,417,800	949,300	4.0%	24,433,700
3.2 Gas	1,088,000	1,060,100	404,000	1,082,000	21,900	2.1%	1,082,100
3.3 Sewage Service	649,800	527,000	144,400	649,000	122,000	23.1%	649,000
3.4 Water Service	800	23,300	500	5,000	(18,300)	-78.5%	5,000
4.1 Chemicals	5,088,800	4,774,700	2,668,400	5,053,900	279,200	5.8%	5,059,600
4.2 Supplies & Other	4,998,600	4,739,900	2,338,300	5,168,800	428,900	9.0%	5,176,000
4.3 Contractual Services	15,851,600	13,190,200	6,173,900	14,900,700	1,710,500	13.0%	14,916,300
5.1 Capital Program Allocation	(1,873,300)	(1,710,600)	(904,600)	(1,805,200)	(94,600)	5.5%	(1,812,800)
5.2 Shared Services	(351,500)	-	-	-	-	0.0%	-
7.0 Unallocated Reserve	-	470,900	-	1,729,300	1,258,400	267.2%	2,723,000
<b>Grand Total</b>	<b>\$ 69,193,600</b>	<b>\$ 66,021,100</b>	<b>\$ 34,799,400</b>	<b>\$ 71,966,400</b>	<b>\$ 5,945,300</b>	<b>9.0%</b>	<b>\$ 73,091,300</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Administration	\$ 1,821,400	\$ 2,001,300	\$ 876,300	\$ 2,187,100	\$ 185,800	9.3%	\$ 2,195,100
Water Treatment Plants	53,581,200	50,746,400	26,127,400	54,029,600	3,283,200	6.5%	54,147,600
Water Engineering	1,456,300	1,672,300	819,100	1,360,900	(311,400)	-18.6%	1,365,100
Water Quality	1,272,700	1,938,100	982,300	1,944,700	6,600	0.3%	1,929,400
Water System Operations	-	470,900	-	1,729,300	1,258,400	267.2%	2,723,000
Unallocated	-	470,900	-	1,729,300	1,258,400	267.2%	2,723,000
Pumping Stations	11,062,000	9,192,100	5,994,300	10,714,800	1,522,700	16.6%	10,731,100
<b>Grand Total</b>	<b>\$ 69,193,600</b>	<b>\$ 66,021,100</b>	<b>\$ 34,799,400</b>	<b>\$ 71,966,400</b>	<b>\$ 5,945,300</b>	<b>9.0%</b>	<b>\$ 73,091,300</b>

### Personnel Budget

Water system operations personnel consists of 227 positions and is largely comprised of staffing at the five water treatment plants at 164 positions for FY 2021. Water Quality, at 26 positions, and Water Engineering, at 23 positions, are the second and third largest categories for FY 2021, respectively.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

*Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Water System Operations</b>	<b>224.00</b>	<b>224.00</b>	<b>227.00</b>	<b>227.00</b>	<b>227.00</b>	<b>227.00</b>	<b>227.00</b>
Chief Operating Officer - Water Operations & Field Services	2.00	2.00	3.00	3.00	3.00	3.00	3.00
Water Director	9.00	9.00	11.00	11.00	11.00	11.00	11.00
Water Engineering	24.00	24.00	23.00	23.00	23.00	23.00	23.00
Water Quality	26.00	26.00	26.00	26.00	26.00	26.00	26.00
<b>Subtotal Water Treatment Plants</b>	<b>163.00</b>	<b>163.00</b>	<b>164.00</b>	<b>164.00</b>	<b>164.00</b>	<b>164.00</b>	<b>164.00</b>
Water Works Park	37.00	37.00	35.00	35.00	35.00	35.00	35.00
Springwells Water Plant	35.00	36.00	36.00	36.00	36.00	36.00	36.00
Northeast Water Plant	32.00	30.00	32.00	32.00	32.00	32.00	32.00
Southwest Water Plant	29.00	30.00	30.00	30.00	30.00	30.00	30.00
Lake Huron Water Plant	30.00	30.00	31.00	31.00	31.00	31.00	31.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

*Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Water System Operations</b>	<b>224.00</b>	<b>224.00</b>	<b>226.75</b>	<b>226.75</b>	<b>226.75</b>	<b>226.75</b>	<b>226.75</b>
Chief Operating Officer - Water Operations & Field Services	2.00	2.00	2.75	2.75	2.75	2.75	2.75
Water Director	9.00	9.00	11.00	11.00	11.00	11.00	11.00
Water Engineering	24.00	24.00	23.00	23.00	23.00	23.00	23.00
Water Quality	26.00	26.00	26.00	26.00	26.00	26.00	26.00
<b>Subtotal Water Treatment Plants</b>	<b>163.00</b>	<b>163.00</b>	<b>164.00</b>	<b>164.00</b>	<b>164.00</b>	<b>164.00</b>	<b>164.00</b>
Water Works Park	37.00	37.00	35.00	35.00	35.00	35.00	35.00
Springwells Water Plant	35.00	36.00	36.00	36.00	36.00	36.00	36.00
Northeast Water Plant	32.00	30.00	32.00	32.00	32.00	32.00	32.00
Southwest Water Plant	29.00	30.00	30.00	30.00	30.00	30.00	30.00
Lake Huron Water Plant	30.00	30.00	31.00	31.00	31.00	31.00	31.00

*Personnel Budget* - The table below presents the Water Operations personnel budget which consists of the following expense categories: Salaries & Wages, Salaries & Wages – Workforce Development, Overtime, and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in category 7.0 Unallocated Reserve as shown in the Five Year Financial Plan below.

### *Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Water System Operations</b>	<b>\$ 19,477,100</b>	<b>\$ 20,765,100</b>	<b>\$ 20,859,400</b>	<b>\$ 20,953,700</b>	<b>\$ 21,047,900</b>	<b>\$ 21,142,100</b>
Chief Operating Officer - Water Operations & Field Services	294,800	414,400	416,000	417,700	419,300	420,900
Water Director	1,005,200	1,307,200	1,312,700	1,318,200	1,323,600	1,329,100
Water Engineering	2,807,700	2,645,800	2,657,000	2,668,200	2,679,400	2,690,600
Water Quality	1,722,600	1,690,900	1,699,600	1,708,300	1,717,000	1,725,800
<b>Subtotal Water Treatment Plants</b>	<b>13,646,800</b>	<b>14,706,800</b>	<b>14,774,100</b>	<b>14,841,300</b>	<b>14,908,600</b>	<b>14,975,700</b>
Water Works Park	3,142,900	3,245,800	3,260,500	3,275,100	3,289,800	3,304,500
Springwells Water Plant	2,915,600	3,137,000	3,151,500	3,166,000	3,180,500	3,194,900
Northeast Water Plant	2,552,000	2,848,600	2,861,700	2,874,800	2,887,800	2,900,900
Southwest Water Plant	2,453,800	2,766,200	2,778,700	2,791,200	2,803,800	2,816,300
Lake Huron Water Plant	2,582,500	2,709,200	2,721,700	2,734,200	2,746,700	2,759,100

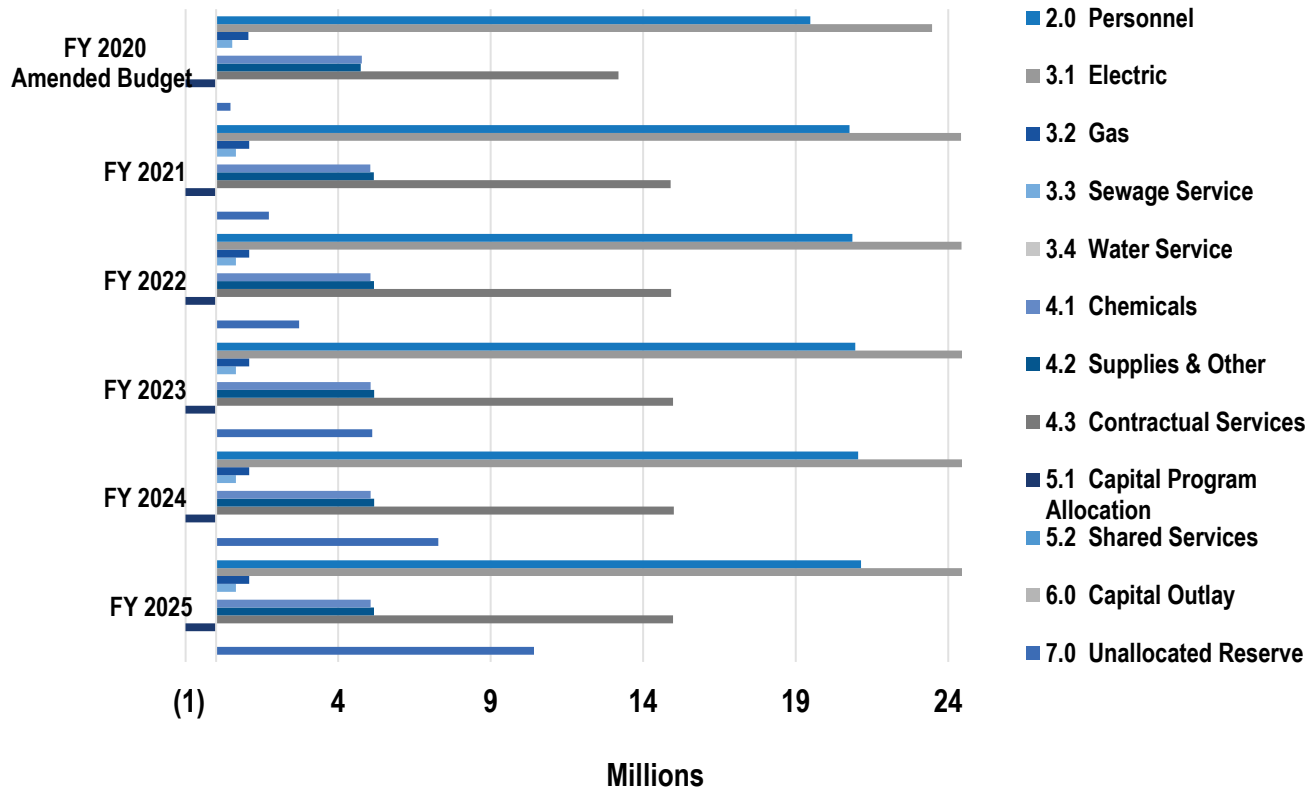
## Five Year Financial Plan

### *Five-Year Financial Plan by Expense Category*

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 19,477,100	\$ 10,339,400	\$ 20,765,100	\$ 1,288,000	6.6%	\$ 20,859,400	\$ 20,953,700	\$ 21,047,900	\$ 21,142,100
3.1 Electric	23,468,500	13,635,100	24,417,800	949,300	4.0%	24,433,700	24,449,600	24,449,600	24,449,600
3.2 Gas	1,060,100	404,000	1,082,000	21,900	2.1%	1,082,100	1,082,200	1,082,200	1,082,200
3.3 Sewage Service	527,000	144,400	649,000	122,000	23.1%	649,000	649,000	649,000	649,000
3.4 Water Service	23,300	500	5,000	(18,300)	-78.5%	5,000	5,000	5,000	5,000
4.1 Chemicals	4,774,700	2,668,400	5,053,900	279,200	5.8%	5,059,600	5,065,300	5,065,300	5,065,300
4.2 Supplies & Other	4,739,900	2,338,300	5,168,800	428,900	9.0%	5,176,000	5,183,100	5,183,100	5,174,500
4.3 Contractual Services	13,190,200	6,173,900	14,900,700	1,710,500	13.0%	14,916,300	14,980,800	15,004,800	14,978,800
5.1 Capital Program Allocation	(1,710,600)	(904,600)	(1,805,200)	(94,600)	5.5%	(1,812,800)	(1,820,500)	(1,828,100)	(1,835,700)
7.0 Unallocated Reserve	470,900	-	1,729,300	1,258,400	267.2%	2,723,000	5,119,500	7,282,600	10,421,400
<b>Grand Total</b>	<b>\$ 66,021,100</b>	<b>34,799,400</b>	<b>\$ 71,966,400</b>	<b>\$ 5,945,300</b>	<b>9.0%</b>	<b>\$ 73,091,300</b>	<b>\$ 75,667,700</b>	<b>\$ 77,941,400</b>	<b>\$ 81,132,200</b>



## Five Year Financial Plan

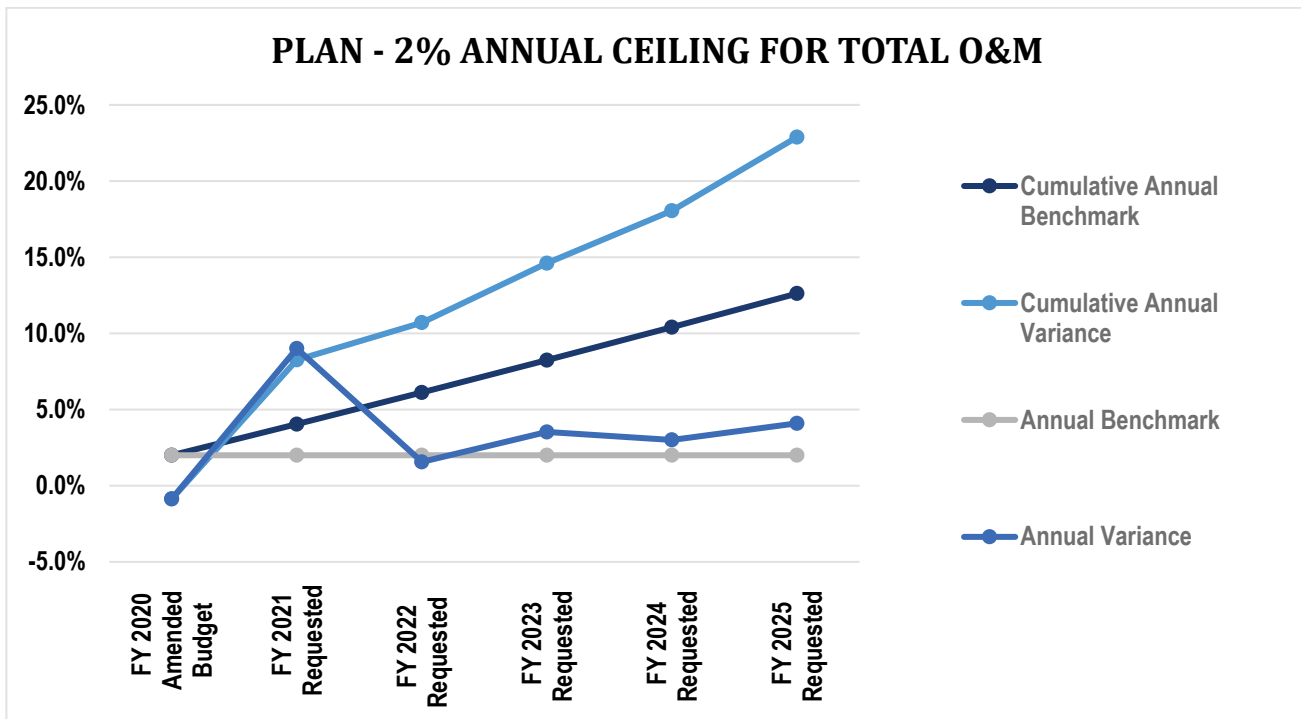


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Administration	\$ 2,001,300	\$ 876,300	\$ 2,187,100	\$ 185,800	9.3%	\$ 2,195,100	\$ 2,203,200	\$ 2,210,200	\$ 2,217,300
Water Treatment Plants	50,746,400	26,127,400	54,029,600	3,283,200	6.5%	54,147,600	54,290,300	54,357,000	54,412,900
Water Engineering	1,672,300	819,100	1,360,900	(311,400)	-18.6%	1,365,100	1,369,200	1,373,400	1,377,600
Water Quality	1,938,100	982,300	1,944,700	6,600	0.3%	1,929,400	1,938,100	1,970,800	1,955,600
Water System Operations									
Unallocated	470,900	-	1,729,300	1,258,400	267.2%	2,723,000	5,119,500	7,282,600	10,421,400
Pumping Stations	9,192,100	5,994,300	10,714,800	1,522,700	16.6%	10,731,100	10,747,400	10,747,400	10,747,400
<b>Grand Total</b>	<b>\$ 66,021,100</b>	<b>\$ 34,799,400</b>	<b>\$ 71,966,400</b>	<b>\$ 5,945,300</b>	<b>9.0%</b>	<b>\$ 73,091,300</b>	<b>\$ 75,667,700</b>	<b>\$ 77,941,400</b>	<b>\$ 81,132,200</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Water Operations Group's financial plan reflects a Five-Year Overall increase of 22.9% which is above the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment). The largest yearly increase is for FY 2021 which has a 9% increase over FY 2020. Items causing this large increase are described previously in the section above labeled "Biennial Budget Request".



## Capital Outlay

Water Operations capital outlay is funded by the Improvement & Extension (I&E) budget.

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Improvement &amp; Extension</b>	<b>\$ 2,394,900</b>	<b>\$ 3,796,600</b>	<b>\$ 1,673,600</b>	<b>\$ 1,644,100</b>	<b>\$ 2,353,500</b>	<b>\$ 1,650,500</b>
<b>Information Technology</b>	<b>5,500</b>	<b>5,500</b>	<b>5,500</b>	<b>5,500</b>	<b>5,500</b>	<b>5,500</b>
Software	5,500	5,500	5,500	5,500	5,500	5,500
<b>Leasehold Improvements</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>158,000</b>
<b>Machinery &amp; Equipment</b>	<b>2,382,400</b>	<b>3,764,100</b>	<b>1,628,100</b>	<b>1,631,600</b>	<b>2,293,000</b>	<b>1,480,000</b>
Controls & Communication	25,000	1,505,000	25,000	139,000	35,000	52,000
Furniture & Fixtures	-	6,000	-	-	-	6,000
Heavy Equipment	120,000	-	-	-	105,000	27,000
Laboratory	231,700	254,000	273,000	225,500	224,000	249,000
Pipes, Gates & Valves	222,000	375,000	245,500	100,000	255,000	150,000
Process Equipment	999,000	400,000	395,000	604,000	362,000	310,000
Pumps & Motors	773,700	1,204,100	689,600	543,100	1,292,000	676,000
Tools, Shop & Warehouse	11,000	20,000	-	20,000	20,000	10,000
<b>Vehicles</b>	<b>7,000</b>	<b>27,000</b>	<b>40,000</b>	<b>7,000</b>	<b>55,000</b>	<b>7,000</b>
Trailer & Towable Equipment	-	20,000	40,000	-	40,000	-
Utility Vehicle	7,000	7,000	-	7,000	15,000	7,000
<b>Grand Total</b>	<b>\$ 2,394,900</b>	<b>\$ 3,796,600</b>	<b>\$ 1,673,600</b>	<b>\$ 1,644,100</b>	<b>\$ 2,353,500</b>	<b>\$ 1,650,500</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 2,394,900	\$ 3,796,600	\$ 1,673,600	\$ 1,644,100	\$ 2,353,500	\$ 1,650,500
<b>Grand Total</b>	<b>\$ 2,394,900</b>	<b>\$ 3,796,600</b>	<b>\$ 1,673,600</b>	<b>\$ 1,644,100</b>	<b>\$ 2,353,500</b>	<b>\$ 1,650,500</b>

*Five-Year Capital Outlay Plan by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Water Engineering</b>	\$ 5,500	\$ 11,500	\$ 5,500	\$ 5,500	\$ 5,500	\$ 11,500
<b>Water Quality</b>	7,000	32,000	30,000	51,000	22,000	50,000
<b>Water Treatment Plants</b>	2,382,400	3,753,100	1,638,100	1,587,600	2,326,000	1,589,000
Water Works Park	340,400	586,100	308,100	373,600	354,000	354,000
Springwells Water Plant	735,000	969,000	632,000	351,000	901,000	350,000
Northeast Water Plant	925,000	920,000	400,000	600,000	400,000	600,000
Southwest Water Plant	238,000	615,000	250,000	250,000	250,000	250,000
Lake Huron Water Plant	144,000	663,000	48,000	13,000	421,000	35,000
<b>Grand Total</b>	<b>\$ 2,394,900</b>	<b>\$ 3,796,600</b>	<b>\$ 1,673,600</b>	<b>\$ 1,644,100</b>	<b>\$ 2,353,500</b>	<b>\$ 1,650,500</b>

**Line Item Budget and Financial Plan**

The five-year plan with a line item expense budget is reflected on the following pages. The expenses are listed in custom grouping order by cost center.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882001 - COO - Water Operations &amp; Field</b>								
<b>Services</b>	\$ 330,800	\$ 373,100	\$ 219,500	\$ 462,900	\$ 465,400	\$ 468,000	\$ 469,600	\$ 471,200
2.1 Salaries & Wages	244,400	233,900	165,400	329,300	329,300	329,300	329,300	329,300
2.4 Employee Benefits	44,600	60,900	35,500	85,100	86,700	88,400	90,000	91,600
4.2 Supplies & Other	33,800	57,900	18,600	38,500	39,400	40,300	40,300	40,300
Memberships, Licenses & Subscriptions	23,800	45,700	3,900	25,600	26,500	27,400	27,400	27,400
Office Supplies	100	2,000	100	500	500	500	500	500
Training and Internal Meetings	900	5,000	6,300	2,400	2,400	2,400	2,400	2,400
Travel	9,000	5,200	8,300	10,000	10,000	10,000	10,000	10,000
4.3 Contractual Services	8,000	20,400	-	10,000	10,000	10,000	10,000	10,000
Contractual Professional Services	8,000	20,400	-	10,000	10,000	10,000	10,000	10,000
<b>882101 - Water Director</b>	<b>1,490,600</b>	<b>1,628,200</b>	<b>656,800</b>	<b>1,724,200</b>	<b>1,729,700</b>	<b>1,735,200</b>	<b>1,740,600</b>	<b>1,746,100</b>
2.1 Salaries & Wages	827,900	782,000	408,500	982,100	982,100	982,100	982,100	982,100
2.3 Overtime	45,400	-	6,500	40,000	40,000	40,000	40,000	40,000
2.4 Employee Benefits	194,600	223,200	102,400	285,100	290,600	296,100	301,500	307,000
4.2 Supplies & Other	387,200	603,000	137,300	402,000	402,000	402,000	402,000	402,000
Employee Uniform Expense	86,500	120,000	39,600	85,000	85,000	85,000	85,000	85,000
Inspection and Permit Fees	5,100	150,000	-	5,500	5,500	5,500	5,500	5,500
Memberships, Licenses & Subscriptions	1,800	1,000	100	2,300	2,300	2,300	2,300	2,300
Mileage and Parking	7,900	4,100	6,600	5,000	5,000	5,000	5,000	5,000
Office Supplies	6,600	5,100	3,300	7,200	7,200	7,200	7,200	7,200
Training and Internal Meetings	239,300	259,600	63,700	246,000	246,000	246,000	246,000	246,000
Travel	40,000	61,200	24,000	50,000	50,000	50,000	50,000	50,000
Tuition Refund	-	2,000	-	1,000	1,000	1,000	1,000	1,000
4.3 Contractual Services	35,500	20,000	2,100	15,000	15,000	15,000	15,000	15,000
Contractual Professional Services	10,400	20,000	2,100	15,000	15,000	15,000	15,000	15,000
Damage Claims	25,100	-	-	-	-	-	-	-
<b>882111 - Water Engineering</b>	<b>1,456,300</b>	<b>1,672,300</b>	<b>819,100</b>	<b>1,360,900</b>	<b>1,365,100</b>	<b>1,369,200</b>	<b>1,373,400</b>	<b>1,377,600</b>
2.1 Salaries & Wages	1,922,100	2,076,200	1,018,300	1,963,500	1,963,500	1,963,500	1,963,500	1,963,500
2.3 Overtime	131,200	129,500	56,200	100,000	100,000	100,000	100,000	100,000
2.4 Employee Benefits	497,300	602,000	278,000	582,300	593,500	604,700	615,900	627,100
4.2 Supplies & Other	114,300	171,900	121,400	92,800	92,800	92,800	92,800	92,800
Capital Outlay less than \$5,000	-	54,700	80,400	5,000	5,000	5,000	5,000	5,000
Employee Uniform Expense	11,900	17,500	3,400	12,000	12,000	12,000	12,000	12,000
Memberships, Licenses & Subscriptions	8,600	27,800	300	9,700	9,700	9,700	9,700	9,700
Mileage and Parking	21,000	18,000	8,600	18,000	18,000	18,000	18,000	18,000
Office Supplies	13,100	17,000	6,000	13,000	13,000	13,000	13,000	13,000
Rentals-Miscellaneous	20,500	-	3,000	-	-	-	-	-
Repairs & Maintenance-Equipment	400	-	-	-	-	-	-	-
Training and Internal Meetings	20,200	8,200	7,100	18,500	18,500	18,500	18,500	18,500
Travel	12,000	9,500	11,000	10,000	10,000	10,000	10,000	10,000
Operating Supplies	2,600	15,700	1,600	3,500	3,500	3,500	3,500	3,500
Postage	-	500	-	100	100	100	100	100
Tuition Refund	4,000	3,000	-	3,000	3,000	3,000	3,000	3,000
4.3 Contractual Services	551,100	283,600	200,400	290,000	290,000	290,000	290,000	290,000
Contractual Professional Services	551,100	283,600	200,400	290,000	290,000	290,000	290,000	290,000
5.1 Capital Program Allocation	(1,759,700)	(1,590,900)	(855,200)	(1,667,700)	(1,674,700)	(1,681,800)	(1,688,800)	(1,695,800)

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882121 - Water Quality</b>	<b>1,272,700</b>	<b>1,938,100</b>	<b>982,300</b>	<b>1,944,700</b>	<b>1,929,400</b>	<b>1,938,100</b>	<b>1,970,800</b>	<b>1,955,600</b>
2.1 Salaries & Wages	933,300	1,221,400	519,700	1,186,800	1,186,800	1,186,800	1,186,800	1,186,800
2.3 Overtime	53,400	50,800	69,000	50,800	50,800	50,800	50,800	50,800
2.4 Employee Benefits	434,700	450,400	265,400	453,300	462,000	470,700	479,400	488,200
4.1 Chemicals	52,700	60,400	37,800	60,000	60,000	60,000	60,000	60,000
4.2 Supplies & Other	117,600	87,100	37,800	114,300	114,300	114,300	114,300	114,300
Capital Outlay less than \$5,000	12,800	30,000	4,800	15,000	15,000	15,000	15,000	15,000
Memberships, Licenses & Subscriptions	200	2,900	100	500	500	500	500	500
Mileage and Parking	-	500	-	200	200	200	200	200
Office Supplies	10,200	10,200	4,200	10,000	10,000	10,000	10,000	10,000
Printing	2,500	2,000	-	2,000	2,000	2,000	2,000	2,000
Operating Supplies	91,900	41,500	28,700	86,600	86,600	86,600	86,600	86,600
<b>4.3 Contractual Services</b>	<b>32,500</b>	<b>68,000</b>	<b>52,600</b>	<b>79,500</b>	<b>55,500</b>	<b>55,500</b>	<b>79,500</b>	<b>55,500</b>
Contractual Operating Services	32,000	68,000	52,600	79,000	55,000	55,000	79,000	55,000
Contractual Professional Services	500	-	-	500	500	500	500	500
<b>5.2 Shared Services</b>	<b>(351,500)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Shared Services : Salaries & Wages Reimb	(145,100)	-	-	-	-	-	-	-
Shared Services Reimbursement	(39,300)	-	-	-	-	-	-	-
Shared Services: Employee Benefit Reimb	(167,100)	-	-	-	-	-	-	-
<b>882131 - Water Works Park</b>	<b>8,068,900</b>	<b>8,783,400</b>	<b>4,383,500</b>	<b>8,729,500</b>	<b>8,729,200</b>	<b>8,748,600</b>	<b>8,763,300</b>	<b>8,778,000</b>
2.1 Salaries & Wages	1,729,700	1,926,300	902,500	1,888,200	1,888,200	1,888,200	1,888,200	1,888,200
2.2 Workforce Development	83,000	76,100	48,400	94,500	94,500	94,500	94,500	94,500
2.3 Overtime	551,700	450,000	263,100	500,000	500,000	500,000	500,000	500,000
2.4 Employee Benefits	732,400	690,500	418,000	763,100	777,800	792,400	807,100	821,800
3.1 Electric	2,003,900	1,950,000	1,074,100	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
3.2 Gas	230,200	250,000	93,300	250,000	250,000	250,000	250,000	250,000
3.3 Sewage Service	92,500	20,000	14,000	95,000	95,000	95,000	95,000	95,000
4.1 Chemicals	908,600	948,700	552,900	936,900	938,700	940,500	940,500	940,500
4.2 Supplies & Other	722,700	839,700	357,200	822,000	822,000	822,000	822,000	822,000
Capital Outlay less than \$5,000	55,300	25,000	29,000	50,000	50,000	50,000	50,000	50,000
Inspection and Permit Fees	300	6,700	100	2,500	2,500	2,500	2,500	2,500
Memberships, Licenses & Subscriptions	1,400	1,000	200	1,000	1,000	1,000	1,000	1,000
Mileage and Parking	-	2,000	-	1,000	1,000	1,000	1,000	1,000
Office Supplies	7,600	11,100	9,500	9,000	9,000	9,000	9,000	9,000
Operating Supplies-Janitorial	19,600	10,000	6,200	15,000	15,000	15,000	15,000	15,000
Repairs & Maintenance-Equipment	529,800	593,900	237,100	613,500	613,500	613,500	613,500	613,500
Operating Supplies	108,700	189,000	75,100	129,500	129,500	129,500	129,500	129,500
Tuition Refund	-	1,000	-	500	500	500	500	500
<b>4.3 Contractual Services</b>	<b>1,014,200</b>	<b>1,632,100</b>	<b>660,000</b>	<b>1,379,800</b>	<b>1,363,000</b>	<b>1,366,000</b>	<b>1,366,000</b>	<b>1,366,000</b>
Contract Services-Information Technology	142,800	328,000	172,500	191,000	191,000	191,000	191,000	191,000
Contractual Buildings & Grounds Maint	515,600	684,400	277,000	576,000	579,000	582,000	582,000	582,000
Contractual Operating Services	286,800	392,700	138,800	315,800	296,000	296,000	296,000	296,000
Contractual Professional Services	69,000	220,000	70,300	295,000	295,000	295,000	295,000	295,000
Telecom, Managed Security & Network Svcs	-	7,000	1,400	2,000	2,000	2,000	2,000	2,000



Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882141 - Springwells Water Plant</b>	<b>15,044,400</b>	<b>12,147,800</b>	<b>7,412,700</b>	<b>13,631,400</b>	<b>13,707,100</b>	<b>13,782,900</b>	<b>13,797,400</b>	<b>13,809,800</b>
2.1 Salaries & Wages	1,882,400	1,923,600	991,700	1,855,600	1,855,600	1,855,600	1,855,600	1,855,600
2.2 Workforce Development	40,100	36,200	19,300	128,300	128,300	128,300	128,300	128,300
2.3 Overtime	441,200	281,800	263,800	400,000	400,000	400,000	400,000	400,000
2.4 Employee Benefits	737,200	674,000	411,700	753,100	767,600	782,100	796,600	811,000
3.1 Electric	3,171,600	3,015,000	1,480,500	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000
3.2 Gas	297,700	239,700	112,000	280,200	280,300	280,400	280,400	280,400
4.1 Chemicals	1,558,500	1,416,000	684,800	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
4.2 Supplies & Other	617,800	674,100	213,300	612,400	612,600	612,800	612,800	612,800
Capital Outlay less than \$5,000	43,200	10,200	-	10,400	10,600	10,800	10,800	10,800
Inspection and Permit Fees	3,800	1,500	-	4,100	4,100	4,100	4,100	4,100
Memberships, Licenses & Subscriptions	400	-	100	500	500	500	500	500
Mileage and Parking	-	2,000	900	1,000	1,000	1,000	1,000	1,000
Office Supplies	11,900	5,700	6,400	11,200	11,200	11,200	11,200	11,200
Operating Supplies-Janitorial	7,500	10,000	6,000	10,000	10,000	10,000	10,000	10,000
Repairs & Maintenance-Equipment	455,800	511,500	119,200	449,100	449,100	449,100	449,100	449,100
Operating Supplies	93,100	132,200	79,200	124,100	124,100	124,100	124,100	124,100
Tuition Refund	2,100	1,000	1,500	2,000	2,000	2,000	2,000	2,000
<b>4.3 Contractual Services</b>	<b>6,297,900</b>	<b>3,887,400</b>	<b>3,235,600</b>	<b>4,901,800</b>	<b>4,962,700</b>	<b>5,023,700</b>	<b>5,023,700</b>	<b>5,021,700</b>
Contract Services-Information Technology	40,700	40,200	26,000	95,000	95,000	95,000	95,000	95,000
Contractual Buildings & Grounds Maint	385,200	415,000	220,600	365,000	365,000	365,000	365,000	365,000
Contractual Operating Services	5,849,100	3,176,500	2,986,500	4,165,400	4,225,600	4,285,900	4,285,900	4,283,900
Contractual Professional Services	22,900	255,700	2,500	276,400	277,100	277,800	277,800	277,800
<b>882151 - Northeast Water Plant</b>	<b>9,731,500</b>	<b>9,356,600</b>	<b>4,952,700</b>	<b>10,229,900</b>	<b>10,242,500</b>	<b>10,259,800</b>	<b>10,272,500</b>	<b>10,276,700</b>
2.1 Salaries & Wages	1,579,400	1,690,400	783,300	1,885,900	1,885,900	1,885,900	1,885,900	1,885,900
2.2 Workforce Development	43,600	39,900	18,800	33,800	33,800	33,800	33,800	33,800
2.3 Overtime	289,800	241,900	185,000	250,000	250,000	250,000	250,000	250,000
2.4 Employee Benefits	606,800	579,800	326,000	678,900	692,000	705,100	718,100	731,200
3.1 Electric	2,617,600	3,000,000	1,624,400	2,800,000	2,800,000	2,800,000	2,800,000	2,800,000
3.2 Gas	163,900	135,700	73,400	153,100	153,100	153,100	153,100	153,100
3.3 Sewage Service	126,000	204,000	63,400	130,000	130,000	130,000	130,000	130,000
3.4 Water Service	-	10,000	-	2,000	2,000	2,000	2,000	2,000
4.1 Chemicals	1,119,700	900,000	527,000	1,000,000	1,003,700	1,007,400	1,007,400	1,007,400
4.2 Supplies & Other	339,400	487,000	291,400	365,000	365,600	366,100	366,100	357,500
Capital Outlay less than \$5,000	6,100	15,300	6,800	10,000	10,000	10,000	10,000	10,000
Inspection and Permit Fees	400	4,800	7,400	4,200	4,200	4,200	4,200	4,200
Memberships, Licenses & Subscriptions	1,200	2,000	500	1,500	1,500	1,500	1,500	1,500
Mileage and Parking	200	1,000	-	1,000	1,000	1,000	1,000	1,000
Office Supplies	4,700	4,600	5,600	5,200	5,200	5,200	5,200	5,200
Operating Supplies-Janitorial	12,300	15,000	7,300	12,000	12,000	12,000	12,000	12,000
Repairs & Maintenance-Equipment	191,300	315,500	176,500	215,600	215,600	215,600	215,600	215,600
Operating Supplies	123,100	127,200	87,300	115,400	116,000	116,500	116,500	107,900
Postage	100	100	-	100	100	100	100	100
Tuition Refund	-	1,500	-	-	-	-	-	-
<b>4.3 Contractual Services</b>	<b>2,875,500</b>	<b>2,126,900</b>	<b>1,075,200</b>	<b>2,996,800</b>	<b>2,992,200</b>	<b>2,992,500</b>	<b>2,992,500</b>	<b>2,992,500</b>
Contract Services-Information Technology	3,000	63,000	5,700	66,600	66,600	66,600	66,600	66,600
Contractual Buildings & Grounds Maint	293,000	323,200	214,900	318,300	313,500	313,600	313,600	313,600
Contractual Operating Services	2,574,500	1,509,500	852,100	2,385,900	2,386,100	2,386,300	2,386,300	2,386,300
Contractual Professional Services	5,000	231,200	2,500	226,000	226,000	226,000	226,000	226,000
<b>5.1 Capital Program Allocation</b>	<b>(30,200)</b>	<b>(59,000)</b>	<b>(15,200)</b>	<b>(65,600)</b>	<b>(65,800)</b>	<b>(66,100)</b>	<b>(66,400)</b>	<b>(66,700)</b>

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882161 - Southwest Water Plant</b>	<b>9,327,700</b>	<b>8,575,500</b>	<b>3,144,000</b>	<b>9,407,500</b>	<b>9,424,900</b>	<b>9,442,500</b>	<b>9,454,800</b>	<b>9,467,000</b>
2.1 Salaries & Wages	1,674,700	1,654,800	841,500	1,714,600	1,714,600	1,714,600	1,714,600	1,714,600
2.3 Overtime	471,100	233,300	252,000	400,000	400,000	400,000	400,000	400,000
2.4 Employee Benefits	641,000	565,700	340,700	651,600	664,100	676,600	689,200	701,700
3.1 Electric	1,261,300	1,026,000	773,800	1,270,000	1,270,000	1,270,000	1,270,000	1,270,000
3.2 Gas	146,600	140,000	61,000	140,000	140,000	140,000	140,000	140,000
3.3 Sewage Service	355,500	225,000	37,300	350,000	350,000	350,000	350,000	350,000
3.4 Water Service	400	-	300	500	500	500	500	500
4.1 Chemicals	446,400	453,400	362,800	451,700	451,900	452,100	452,100	452,100
4.2 Supplies & Other	547,600	765,900	205,200	731,900	737,000	742,100	742,100	742,100
Capital Outlay less than \$5,000	31,000	10,200	57,800	25,000	25,000	25,000	25,000	25,000
Inspection and Permit Fees	3,900	3,100	100	3,000	3,000	3,000	3,000	3,000
Memberships, Licenses & Subscriptions	800	1,500	-	1,500	1,500	1,500	1,500	1,500
Mileage and Parking	-	2,500	-	1,000	1,000	1,000	1,000	1,000
Office Supplies	6,200	12,700	5,400	9,000	9,000	9,000	9,000	9,000
Operating Supplies-Janitorial	12,700	10,200	7,100	10,000	10,000	10,000	10,000	10,000
Property Taxes	245,400	255,500	2,200	260,200	265,200	270,200	270,200	270,200
Rentals-Miscellaneous	-	3,100	-	3,000	3,000	3,000	3,000	3,000
Repairs & Maintenance-Equipment	133,700	295,100	107,000	289,000	289,000	289,000	289,000	289,000
Repairs & Maintenance-Hardware	1,800	-	-	-	-	-	-	-
Operating Supplies	110,900	172,000	25,600	129,200	129,300	129,400	129,400	129,400
Tuition Refund	1,200	-	-	1,000	1,000	1,000	1,000	1,000
<b>4.3 Contractual Services</b>	<b>3,866,500</b>	<b>3,572,100</b>	<b>303,600</b>	<b>3,769,100</b>	<b>3,769,100</b>	<b>3,769,200</b>	<b>3,769,200</b>	<b>3,769,200</b>
Contract Services-Information Technology	14,700	74,500	12,000	90,000	90,000	90,000	90,000	90,000
Contractual Buildings & Grounds Maint	551,400	466,300	206,400	527,000	527,000	527,000	527,000	527,000
Contractual Operating Services	3,283,700	2,806,300	79,100	2,905,100	2,905,100	2,905,200	2,905,200	2,905,200
Contractual Professional Services	16,700	223,000	6,100	247,000	247,000	247,000	247,000	247,000
Telecom, Managed Security & Network Svcs	-	2,000	-	-	-	-	-	-
<b>5.1 Capital Program Allocation</b>	<b>(83,400)</b>	<b>(60,700)</b>	<b>(34,200)</b>	<b>(71,900)</b>	<b>(72,300)</b>	<b>(72,600)</b>	<b>(72,900)</b>	<b>(73,200)</b>

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882171 - Lake Huron Water Plant</b>	<b>11,408,700</b>	<b>11,883,100</b>	<b>6,234,500</b>	<b>12,031,300</b>	<b>12,043,900</b>	<b>12,056,500</b>	<b>12,069,000</b>	<b>12,081,400</b>
2.1 Salaries & Wages	1,539,200	1,652,300	850,800	1,709,400	1,709,400	1,709,400	1,709,400	1,709,400
2.3 Overtime	363,700	365,000	123,800	350,000	350,000	350,000	350,000	350,000
2.4 Employee Benefits	613,100	565,200	374,100	649,800	662,300	674,800	687,300	699,700
3.1 Electric	6,190,800	5,900,000	3,270,400	6,100,000	6,100,000	6,100,000	6,100,000	6,100,000
3.2 Gas	170,800	190,000	36,900	180,000	180,000	180,000	180,000	180,000
3.3 Sewage Service	74,000	70,000	28,500	70,000	70,000	70,000	70,000	70,000
3.4 Water Service	-	5,000	-	1,000	1,000	1,000	1,000	1,000
4.1 Chemicals	1,002,900	996,200	503,100	1,005,300	1,005,300	1,005,300	1,005,300	1,005,300
4.2 Supplies & Other	564,500	559,700	402,500	557,100	557,100	557,100	557,100	557,100
Capital Outlay less than \$5,000	10,600	15,000	19,000	15,000	15,000	15,000	15,000	15,000
Inspection and Permit Fees	3,100	1,500	400	3,000	3,000	3,000	3,000	3,000
Memberships, Licenses & Subscriptions	1,500	500	500	1,500	1,500	1,500	1,500	1,500
Mileage and Parking	3,200	6,100	800	3,000	3,000	3,000	3,000	3,000
Office Supplies	8,300	10,900	5,100	9,000	9,000	9,000	9,000	9,000
Operating Supplies-Automotive	6,800	15,000	4,600	9,600	9,600	9,600	9,600	9,600
Operating Supplies-Janitorial	7,700	5,100	3,200	6,500	6,500	6,500	6,500	6,500
Property Taxes	7,400	10,000	6,400	8,000	8,000	8,000	8,000	8,000
Repairs & Maintenance-Equipment	307,800	285,000	266,600	297,000	297,000	297,000	297,000	297,000
Operating Supplies	206,600	207,500	95,900	202,000	202,000	202,000	202,000	202,000
Postage	100	3,100	-	500	500	500	500	500
Tuition Refund	1,400	-	-	2,000	2,000	2,000	2,000	2,000
<b>4.3 Contractual Services</b>	<b>889,700</b>	<b>1,579,700</b>	<b>644,400</b>	<b>1,408,700</b>	<b>1,408,800</b>	<b>1,408,900</b>	<b>1,408,900</b>	<b>1,408,900</b>
Contract Services-Information Technology	15,800	20,400	-	65,000	65,000	65,000	65,000	65,000
Contractual Buildings & Grounds Maint	309,000	420,000	129,800	285,000	285,000	285,000	285,000	285,000
Contractual Operating Services	560,100	907,300	506,200	824,700	824,800	824,900	824,900	824,900
Contractual Professional Services	4,800	232,000	8,400	234,000	234,000	234,000	234,000	234,000
<b>882321 - Ford Rd Pumping Station</b>	<b>416,000</b>	<b>394,600</b>	<b>265,100</b>	<b>423,700</b>	<b>423,700</b>	<b>423,700</b>	<b>423,700</b>	<b>423,700</b>
3.1 Electric	403,700	357,000	244,200	400,000	400,000	400,000	400,000	400,000
3.2 Gas	3,500	5,000	1,100	3,700	3,700	3,700	3,700	3,700
3.3 Sewage Service	-	2,000	-	-	-	-	-	-
3.4 Water Service	-	5,100	-	-	-	-	-	-
4.2 Supplies & Other	8,800	25,500	19,800	20,000	20,000	20,000	20,000	20,000
Repairs & Maintenance-Equipment	8,800	25,500	19,800	20,000	20,000	20,000	20,000	20,000
<b>882322 - Eastside Pumping Station</b>	<b>52,700</b>	<b>43,000</b>	<b>21,100</b>	<b>53,000</b>	<b>53,000</b>	<b>53,000</b>	<b>53,000</b>	<b>53,000</b>
3.1 Electric	32,000	30,000	14,300	30,000	30,000	30,000	30,000	30,000
3.2 Gas	2,900	3,000	1,600	3,000	3,000	3,000	3,000	3,000
4.2 Supplies & Other	17,800	10,000	5,200	20,000	20,000	20,000	20,000	20,000
Repairs & Maintenance-Equipment	17,800	10,000	5,200	20,000	20,000	20,000	20,000	20,000
<b>882323 - Northwest Pumping Station</b>	<b>21,400</b>	<b>17,000</b>	<b>17,200</b>	<b>27,000</b>	<b>27,000</b>	<b>27,000</b>	<b>27,000</b>	<b>27,000</b>
3.1 Electric	11,300	5,000	13,800	10,000	10,000	10,000	10,000	10,000
3.3 Sewage Service	200	1,000	100	500	500	500	500	500
3.4 Water Service	200	1,000	100	500	500	500	500	500
4.2 Supplies & Other	9,700	10,000	3,200	16,000	16,000	16,000	16,000	16,000
Repairs & Maintenance-Equipment	9,700	10,000	3,200	16,000	16,000	16,000	16,000	16,000

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882324 - West Service Center Pumping Station</b>								
Station	813,500	720,000	403,600	799,300	799,700	800,100	800,100	800,100
3.1 Electric	655,500	664,000	371,800	650,000	650,000	650,000	650,000	650,000
3.2 Gas	8,300	5,000	1,200	8,000	8,000	8,000	8,000	8,000
4.2 Supplies & Other	149,700	51,000	30,600	141,300	141,700	142,100	142,100	142,100
Repairs & Maintenance-Equipment	149,700	51,000	30,600	141,300	141,700	142,100	142,100	142,100
<b>882325 - Michigan Ave Pumping Station</b>								
Station	98,500	90,800	66,600	102,000	102,000	102,000	102,000	102,000
3.1 Electric	85,800	81,800	48,900	85,000	85,000	85,000	85,000	85,000
3.3 Sewage Service	100	2,000	100	1,000	1,000	1,000	1,000	1,000
3.4 Water Service	200	2,000	100	1,000	1,000	1,000	1,000	1,000
4.2 Supplies & Other	12,400	5,000	17,500	15,000	15,000	15,000	15,000	15,000
Repairs & Maintenance-Equipment	12,400	5,000	17,500	15,000	15,000	15,000	15,000	15,000
<b>882326 - West Chicago Rd Pumping Station</b>								
Station	25,700	51,000	17,800	36,000	36,000	36,000	36,000	36,000
3.1 Electric	22,600	41,000	10,600	30,000	30,000	30,000	30,000	30,000
4.2 Supplies & Other	3,100	10,000	7,200	6,000	6,000	6,000	6,000	6,000
Repairs & Maintenance-Equipment	3,100	10,000	7,200	6,000	6,000	6,000	6,000	6,000
<b>882327 - Electric Ave Pumping Station</b>								
Station	19,100	25,500	13,000	19,500	19,500	19,500	19,500	19,500
3.1 Electric	16,300	15,500	8,000	16,000	16,000	16,000	16,000	16,000
4.2 Supplies & Other	2,800	10,000	5,000	3,500	3,500	3,500	3,500	3,500
Repairs & Maintenance-Equipment	2,800	10,000	5,000	3,500	3,500	3,500	3,500	3,500
<b>882328 - Orion Township Pumping Station</b>								
Station	70,900	81,500	40,400	74,500	74,500	74,500	74,500	74,500
3.1 Electric	69,100	71,400	40,300	70,000	70,000	70,000	70,000	70,000
3.2 Gas	300	5,100	-	2,000	2,000	2,000	2,000	2,000
4.2 Supplies & Other	1,500	5,000	100	2,500	2,500	2,500	2,500	2,500
Repairs & Maintenance-Equipment	1,500	5,000	100	2,500	2,500	2,500	2,500	2,500
<b>882329 - North Service Center Pumping Station</b>								
Station	2,455,600	1,927,000	1,242,800	2,416,000	2,416,000	2,416,000	2,416,000	2,416,000
3.1 Electric	1,911,300	1,800,000	1,073,900	1,950,000	1,950,000	1,950,000	1,950,000	1,950,000
3.2 Gas	28,800	25,000	12,600	30,000	30,000	30,000	30,000	30,000
4.2 Supplies & Other	515,500	102,000	156,300	436,000	436,000	436,000	436,000	436,000
Repairs & Maintenance-Equipment	515,500	102,000	156,300	436,000	436,000	436,000	436,000	436,000
<b>882330 - Adams Road Pumping Station</b>								
Station	517,600	520,000	303,500	605,000	605,000	605,000	605,000	605,000
3.1 Electric	480,300	500,000	265,800	500,000	500,000	500,000	500,000	500,000
4.2 Supplies & Other	36,700	20,000	37,700	105,000	105,000	105,000	105,000	105,000
Repairs & Maintenance-Equipment	36,700	20,000	37,700	105,000	105,000	105,000	105,000	105,000
4.3 Contractual Services	600	-	-	-	-	-	-	-
Contractual Professional Services	600	-	-	-	-	-	-	-
<b>882331 - Newburgh Pumping Station</b>								
Station	331,600	382,300	182,000	390,000	390,000	390,000	390,000	390,000
3.1 Electric	317,500	372,300	180,000	365,000	365,000	365,000	365,000	365,000
4.2 Supplies & Other	14,100	10,000	2,000	25,000	25,000	25,000	25,000	25,000
Repairs & Maintenance-Equipment	14,100	10,000	2,000	25,000	25,000	25,000	25,000	25,000
<b>882332 - Franklin Road Pumping Station</b>								
Station	933,800	780,600	503,700	915,000	915,000	915,000	915,000	915,000
3.1 Electric	726,400	750,000	435,200	750,000	750,000	750,000	750,000	750,000
4.2 Supplies & Other	207,400	30,600	68,500	165,000	165,000	165,000	165,000	165,000
Repairs & Maintenance-Equipment	207,400	30,600	68,500	165,000	165,000	165,000	165,000	165,000
<b>882333 - Roseville Pumping Station</b>								
Station	-	10,300	-	-	-	-	-	-
3.1 Electric	-	5,100	-	-	-	-	-	-
3.4 Water Service	-	200	-	-	-	-	-	-
4.2 Supplies & Other	-	5,000	-	-	-	-	-	-
Repairs & Maintenance-Equipment	-	5,000	-	-	-	-	-	-

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882334 - Wick Road Pumping Station</b>	605,600	551,000	289,400	589,500	599,000	608,500	608,500	608,500
3.1 Electric	496,400	464,500	243,300	494,000	503,500	513,000	513,000	513,000
3.2 Gas	5,800	5,100	1,800	5,000	5,000	5,000	5,000	5,000
3.3 Sewage Service	400	500	200	500	500	500	500	500
4.2 Supplies & Other	103,000	80,900	44,100	90,000	90,000	90,000	90,000	90,000
Repairs & Maintenance-Equipment	103,000	80,900	44,100	90,000	90,000	90,000	90,000	90,000
<b>882335 - Joy Road Pumping Station</b>	626,000	592,300	363,600	657,500	657,500	657,500	657,500	657,500
3.1 Electric	503,900	550,000	323,900	525,000	525,000	525,000	525,000	525,000
3.2 Gas	1,900	4,000	500	3,000	3,000	3,000	3,000	3,000
3.3 Sewage Service	500	500	200	500	500	500	500	500
4.2 Supplies & Other	119,700	37,800	39,000	129,000	129,000	129,000	129,000	129,000
Repairs & Maintenance-Equipment	119,700	37,800	39,000	129,000	129,000	129,000	129,000	129,000
<b>882336 - Schoolcraft Pumping Station</b>	399,600	401,300	234,600	416,000	416,000	416,000	416,000	416,000
3.1 Electric	351,800	375,000	187,700	370,000	370,000	370,000	370,000	370,000
3.2 Gas	4,100	6,100	700	3,000	3,000	3,000	3,000	3,000
4.2 Supplies & Other	43,700	20,200	46,200	43,000	43,000	43,000	43,000	43,000
Repairs & Maintenance-Equipment	43,700	20,200	46,200	43,000	43,000	43,000	43,000	43,000
<b>882337 - Ypsilanti Pumping Station</b>	630,200	353,300	179,800	406,800	413,200	419,600	419,600	419,600
3.1 Electric	315,200	326,400	169,800	332,800	339,200	345,600	345,600	345,600
3.2 Gas	5,300	6,600	1,900	5,000	5,000	5,000	5,000	5,000
4.2 Supplies & Other	29,600	20,300	8,100	19,000	19,000	19,000	19,000	19,000
Repairs & Maintenance-Equipment	29,600	20,300	8,100	19,000	19,000	19,000	19,000	19,000
4.3 Contractual Services	280,100	-	-	50,000	50,000	50,000	50,000	50,000
Contractual Professional Services	280,100	-	-	50,000	50,000	50,000	50,000	50,000
<b>882338 - Inlay Pumping Station</b>	2,615,200	1,805,300	1,535,800	2,305,000	2,305,000	2,305,000	2,305,000	2,305,000
3.1 Electric	2,406,700	1,785,000	1,503,200	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000
4.2 Supplies & Other	208,500	20,300	32,600	105,000	105,000	105,000	105,000	105,000
Repairs & Maintenance-Equipment	208,500	20,300	32,600	105,000	105,000	105,000	105,000	105,000
<b>882339 - Rochester Pumping Station</b>	207,800	174,200	179,500	231,000	231,000	231,000	231,000	231,000
3.1 Electric	169,000	154,000	167,900	170,000	170,000	170,000	170,000	170,000
3.2 Gas	5,800	9,200	2,100	6,000	6,000	6,000	6,000	6,000
3.3 Sewage Service	-	1,000	400	500	500	500	500	500
4.2 Supplies & Other	33,000	10,000	9,100	54,500	54,500	54,500	54,500	54,500
Repairs & Maintenance-Equipment	33,000	10,000	9,100	54,500	54,500	54,500	54,500	54,500
<b>882340 - Haggerty Road Pumping Station</b>	221,200	271,100	134,800	248,000	248,000	248,000	248,000	248,000
3.1 Electric	171,800	229,500	109,300	200,000	200,000	200,000	200,000	200,000
3.2 Gas	12,100	30,600	3,900	10,000	10,000	10,000	10,000	10,000
3.3 Sewage Service	600	1,000	200	1,000	1,000	1,000	1,000	1,000
4.2 Supplies & Other	36,700	10,000	21,400	37,000	37,000	37,000	37,000	37,000
Repairs & Maintenance-Equipment	36,700	10,000	21,400	37,000	37,000	37,000	37,000	37,000
<b>887601 - Water System Operations</b>								
Unallocated	-	470,900	-	1,729,300	2,723,000	5,119,500	7,282,600	10,421,400
7.0 Unallocated Reserve	-	470,900	-	1,729,300	2,723,000	5,119,500	7,282,600	10,421,400
<b>Grand Total</b>	<b>\$ 69,193,600</b>	<b>\$ 66,021,100</b>	<b>\$ 34,799,400</b>	<b>\$ 71,966,400</b>	<b>\$ 73,091,300</b>	<b>\$ 75,667,700</b>	<b>\$ 77,941,400</b>	<b>\$ 81,132,200</b>

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## Section 3B

# Wastewater (Sewer) System Operations





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## Highlights

**The Wastewater Operating Group pursues various strategic initiatives including:**

- ❖ **Safeguarding the publics' health and the environment**  
Through compliance with the National Pollution Discharge Elimination System (NPDES).
- ❖ **Monitor and improve the reliability of processing equipment**  
By focusing on preventative maintenance while stabilizing corrective maintenance measures.
- ❖ **Continue to build a reliable workforce**  
In accordance with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) staffing plan through the recruitment of talented individuals and implementation of apprenticeship programs.
- ❖ **Optimizing the Biosolid Dryer Facility**  
Elimination of the Central Offloading process which will minimize the landfill disposal and maximize the Biosolid for beneficial reuse.
- ❖ **Upgrade of Instrumentation and Control Systems**  
Including calibration and replacement of various instruments, including software updates and hardware to the wastewater controls system. Improvements will increase reliability in the Water Resource Recovery Facility (WRRF) and Combined Sewer Overflow (CSO) real time data to improve response time.
- ❖ **Continue efforts towards innovation**  
By working with the Energy, Research and Innovation Group to explore opportunities to partner with universities to conduct research at the WRRF.

The following table shows how the wastewater operations strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Wastewater Operations Strategic Initiatives	Safeguarding the publics' health and the environment			x	x	x		x	x			x
	Monitor and improve the reliability of processing equipment			x	x		x	x	x			
	Continue to build a reliable workforce			x		x	x				x	
	Optimizing the Biosolid Dryer Facility	x			x	x	x		x	x		x
	Upgrade of Instrumentation and Control Systems				x		x					
	Continue efforts towards innovation	x		x	x	x	x		x			x

## Organization

The GLWA Wastewater Operations Area consists of four teams.

❖ **Water Resource Recovery Facility (WRRF)**

Processing plant for the treatment of sewage for the greater metropolitan area

❖ **Combined Sewer Overflow (CSO)**

Facilities utilized to control flow volumes for protecting the system and the receiving waters during increased system demand such as during rainstorms or snow melt

❖ **Wastewater Laboratories**

Monitoring of pollutants entering GLWA sewage facilities

❖ **All Others (including)**

○ **Wastewater Engineering**

Provide design, construction and administration services for improvements to the WRRF and CSO facilities

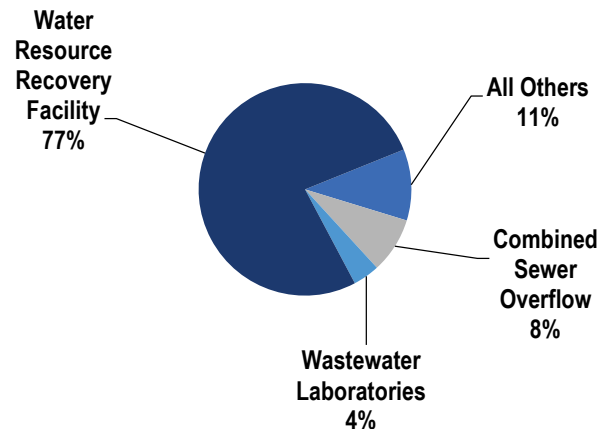
○ **Industrial Waste Control**

Identification and monitoring of industrial users for pollutants

○ **Wastewater Systems Unallocated**

Funds not apportioned for a specific purpose used for significant unexpected or unbudgeted expenditures

### FY 2021 REQUEST BY TEAM

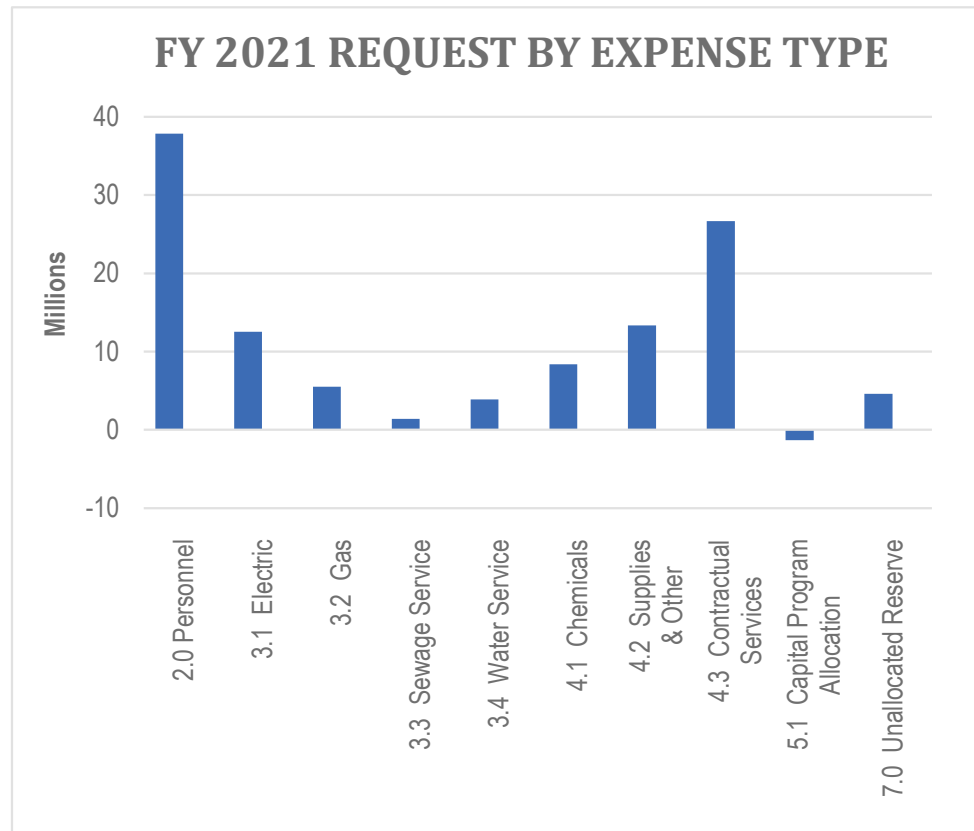


## Expense Categories

There are two major categories for Wastewater Operating Group. The expenses in the Operations and Maintenance Budget are listed below.

- ❖ Personnel Costs
- ❖ Contractual Services

As outlined in the strategic initiatives noted above, the Wastewater Operations Group is tasked with the handling and disposal of solids separated through the treatment process. The disposal of these materials make-up the majority of contractual services expenditures.



The Biosolids Dryer Facility (BDF) operated by the New England Fertilizer Company was commissioned in 2016. This facility has greatly reduced the volume of solid waste incinerated or sent to landfill by processing the product into a renewable resource (fertilizer). Over the past two years an estimated two thirds of the biological waste has been processed by the BDF. For FY 2021 the budget for biosolids hauling and the related landfill was reduced by \$1.5 million.

Reliability of processing equipment is of primary concern for GLWA. As part of this effort the Administration of the Wastewater Operating Group has continued to focus on reinforcing a proactive maintenance program.

## Biennial Budget Request

The biennial budget reflects an overall decrease in FY 2021 of \$466,300. Key factors that impact this change include the following.

- ❖ Staffing, as noted in the *Personnel Budget* section below increased by \$1.6 million. This increase is due to a combination of three factors. (1) The staffing plan increased by 3 positions. This is partly due to an initiative to increase operation information technology capabilities as it relates to operational network security. (2) The staffing

mix reflects continued focus on equipment maintenance and asset management. (3) Use of actual salaries and an updated benefits calculation for FY 2021.

- ❖ The chemical budget was reduced due to continued optimization of bulk chemicals in the Primary and Secondary operational areas. Additionally, through increased use of the BDF, need for high-calcium lime used for material sent to landfill has been almost eliminated.
- ❖ Supplies and Other was reduced by \$904,200. The primary driver for this decrease is the deferral of a project for the removal of sludge from the influent tunnels at the CSO facilities.
- ❖ Contribution to the unallocated reserve was reduced by \$1.6 million. The unallocated reserve is set aside for unbudgeted expenditures needed in operations. An example of these unknown events would be the potential impact of historically high water levels in Lake St Clair and the Detroit and Rouge Rivers on the wastewater system.

#### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 36,668,300	\$ 36,219,000	\$ 18,142,500	\$ 37,871,500	\$ 1,652,500	4.6%	\$ 38,559,200
3.1 Electric	12,329,000	12,491,400	6,272,200	12,538,000	46,600	0.4%	12,782,000
3.2 Gas	5,432,200	5,344,600	2,181,300	5,491,000	146,400	2.7%	5,597,000
3.3 Sewage Service	1,408,900	1,280,200	838,200	1,417,500	137,300	10.7%	1,443,500
3.4 Water Service	3,569,500	3,566,700	1,618,900	3,880,100	313,400	8.8%	3,955,300
4.1 Chemicals	8,186,800	9,123,900	4,397,000	8,365,900	(758,000)	-8.3%	8,492,000
4.2 Supplies & Other	17,535,400	14,248,600	6,607,000	13,344,400	(904,200)	-6.3%	13,036,000
4.3 Contractual Services	28,029,600	26,012,900	11,837,000	26,663,100	650,200	2.5%	26,870,300
5.1 Capital Program Allocation	(1,325,900)	(1,239,400)	(500,500)	(1,325,800)	(86,400)	7.0%	(1,331,600)
5.2 Shared Services	(229,500)	(154,300)	(77,100)	(157,400)	(3,100)	2.0%	(160,400)
7.0 Unallocated Reserve		6,264,900		4,603,900	(1,661,000)	-26.5%	5,971,800
<b>Grand Total</b>	<b>\$ 111,628,200</b>	<b>\$ 113,158,500</b>	<b>\$ 51,316,500</b>	<b>\$ 112,692,200</b>	<b>\$ (466,300)</b>	<b>-0.4%</b>	<b>\$ 115,215,100</b>

#### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Wastewater Administration	\$ 1,983,900	\$ 2,507,800	\$ 823,000	\$ 2,667,300	\$ 159,500	6.4%	\$ 2,695,000
Water Resource Recovery Facility	86,163,100	84,183,300	40,493,900	86,374,600	2,191,300	2.6%	87,918,200
Wastewater Engineering	1,778,200	2,202,500	814,500	2,453,300	250,800	11.4%	2,563,500
Industrial Waste Control	2,708,600	2,407,100	1,158,500	2,496,300	89,200	3.7%	2,511,500
Wastewater Laboratories	4,047,300	4,447,900	2,273,100	4,558,500	110,600	2.5%	4,195,500
Combined Sewer Overflow	12,688,700	11,145,000	5,753,500	9,538,300	(1,606,700)	-14.4%	9,359,600
Wastewater Operations							
Unallocated		6,264,900	-	4,603,900	(1,661,000)	-20.1%	5,971,800
<b>Grand Total</b>	<b>\$ 109,369,800</b>	<b>\$ 113,158,500</b>	<b>\$ 51,316,500</b>	<b>\$ 112,692,200</b>	<b>\$ (466,300)</b>	<b>-0.4%</b>	<b>\$ 115,215,100</b>

## Personnel Budget

Wastewater Operations Group personnel expense is largely comprised of wastewater operations and maintenance staffing of 440 positions. The WRRF staffing plan target is consistent with the agreed upon level with the Michigan Department of Environment, Great Lakes, and Energy. The staffing plan peaks in FY 2021 and FY 2022, falling in back to 440 positions as apprenticeship positions conclude.

The tables on the following page provide three alternate views of the staffing plan.

*Staffing Plan- Number of Positions* – The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant. This number includes apprenticeship positions which are part of GLWA’s Workforce Development programs.

### Staffing Plan

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Wastewater System Operations</b>	<b>440.00</b>	<b>440.00</b>	<b>443.00</b>	<b>443.00</b>	<b>442.00</b>	<b>441.00</b>	<b>440.00</b>
Wastewater Administration	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Water Resource Recovery Facility	304.00	299.00	299.00	299.00	299.00	298.00	297.00
Wastewater Engineering	26.00	24.00	24.00	24.00	24.00	24.00	24.00
Wastewater Laboratories	33.00	38.00	40.00	40.00	40.00	40.00	40.00
Industrial Waste Control	30.00	29.00	29.00	29.00	29.00	29.00	29.00
Combined Sewer Overflow	33.00	36.00	37.00	37.00	36.00	36.00	36.00

*Full Time Equivalent*s - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted, in a given year based upon a standard of 2,080 hours per year.

### Full Time Equivalent

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Wastewater System Operations</b>	<b>419.00</b>	<b>433.25</b>	<b>436.75</b>	<b>442.50</b>	<b>441.50</b>	<b>441.00</b>	<b>440.00</b>
Wastewater Administration	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Water Resource Recovery Facility	292.00	294.00	294.25	299.00	298.50	298.00	297.00
Wastewater Engineering	27.00	24.00	23.50	24.00	24.00	24.00	24.00
Wastewater Laboratories	38.00	38.00	40.00	40.00	40.00	40.00	40.00
Industrial Waste Control	30.00	29.00	28.50	29.00	29.00	29.00	29.00
Combined Sewer Overflow	32.00	34.25	36.50	36.50	36.00	36.00	36.00



*Personnel Budget* – The table below presents the Wastewater Operations Group personnel budget which consists of the following expense categories: Salaries & Wages, Salaries & Wages – Workforce Development, Overtime, Employee Benefits and Contractual Transition Services. The values are based on the *Full Time Equivalents* above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in category 7.0 Unallocated Reserve as shown in the Five Year Financial Plan below.

### *Personnel Budget*

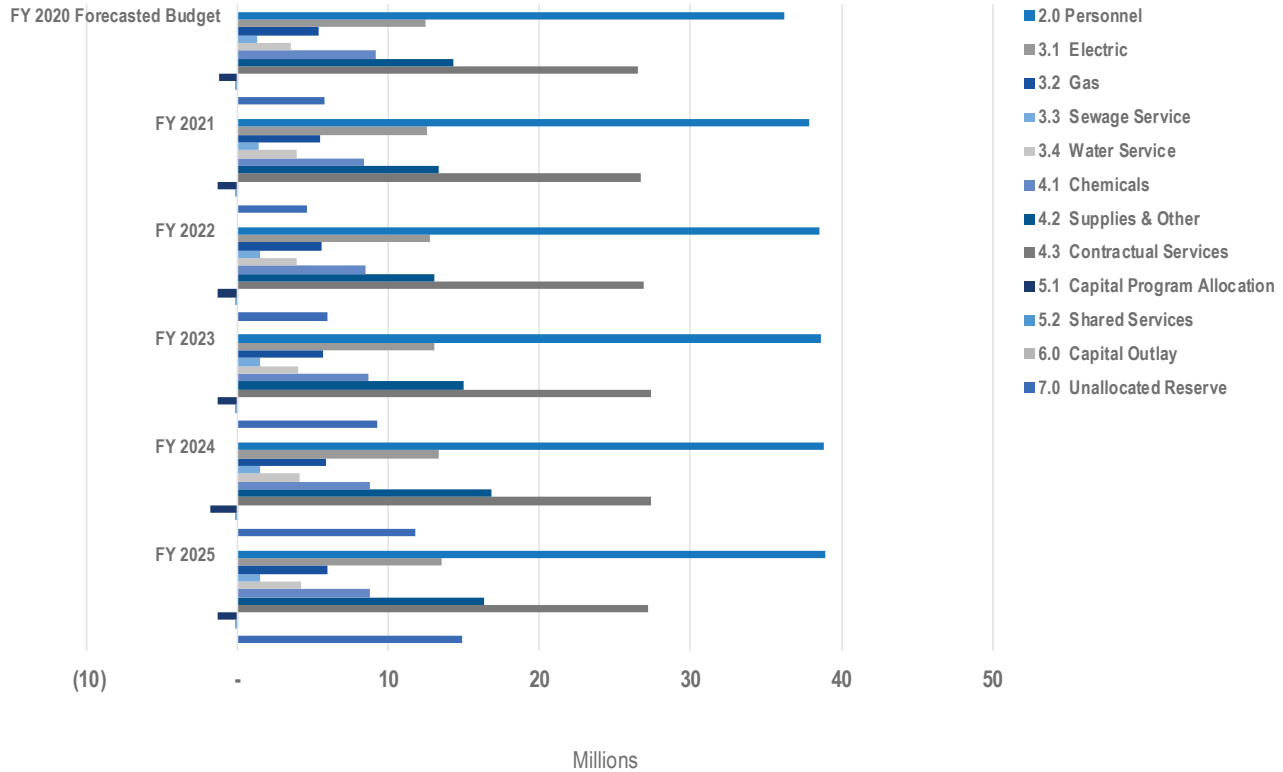
Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Wastewater System Operations</b>	<b>\$ 36,219,000</b>	<b>\$ 37,871,500</b>	<b>\$ 38,559,200</b>	<b>\$ 38,666,800</b>	<b>\$ 38,799,700</b>	<b>\$ 38,907,400</b>
Wastewater Administration	1,530,800	1,609,500	1,615,800	1,622,200	1,628,600	1,634,900
Water Resource Recovery Facility	23,610,800	24,585,700	25,141,500	25,217,400	25,293,100	25,343,700
Wastewater Engineering	2,157,200	2,336,400	2,403,700	2,414,300	2,424,900	2,435,500
Industrial Waste Control	2,077,900	2,107,600	2,135,800	2,146,000	2,156,200	2,166,400
Wastewater Laboratories	3,603,600	3,765,000	3,781,300	3,797,600	3,813,900	3,830,200
Combined Sewer Overflow	3,238,700	3,467,300	3,481,100	3,469,300	3,483,000	3,496,700

## **Five Year Financial Plan**

### *Five-Year Financial Plan by Expense Category*

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.1 Salaries & Wages	\$ 21,209,700	\$ 10,145,200	\$ 21,639,900	\$ 430,200	2.0%	\$ 21,873,700	\$ 21,873,700	\$ 21,873,700	\$ 21,873,700
2.2 Workforce Development	386,100	146,600	85,300	(300,800)	-77.9%	85,300	50,700	33,800	
2.3 Overtime	3,043,300	1,512,000	3,405,500	362,200	11.9%	3,417,800	3,417,800	3,417,800	3,417,800
2.4 Employee Benefits	7,879,800	4,618,900	8,133,100	253,300	3.2%	8,364,700	8,506,900	8,656,700	8,798,200
2.5 Transition Services	3,700,100	1,719,800	4,607,700	907,600	24.5%	4,817,700	4,817,700	4,817,700	4,817,700
3.1 Electric	12,491,400	6,272,200	12,538,000	46,600	0.4%	12,782,000	13,032,000	13,288,000	13,548,000
3.2 Gas	5,344,600	2,181,300	5,491,000	146,400	2.7%	5,597,000	5,706,000	5,817,000	5,930,000
3.3 Sewage Service	1,280,200	838,200	1,417,500	137,300	10.7%	1,443,500	1,470,500	1,497,500	1,524,500
3.4 Water Service	3,566,700	1,618,900	3,880,100	313,400	8.8%	3,955,300	4,031,400	4,109,600	4,188,800
4.1 Chemicals	9,123,900	4,397,000	8,365,900	(758,000)	-8.3%	8,492,000	8,634,000	8,720,300	8,771,500
4.2 Supplies & Other	14,248,600	6,607,000	13,344,400	(904,200)	-6.3%	13,036,000	14,963,400	16,787,500	16,370,400
4.3 Contractual Services	26,012,900	11,837,000	26,663,100	650,200	2.5%	26,870,300	27,375,600	27,369,000	27,165,100
5.1 Capital Program Allocation	(1,239,400)	(500,500)	(1,325,800)	(86,400)	7.0%	(1,331,600)	(1,337,400)	(1,838,900)	(1,349,100)
5.2 Shared Services	(154,300)	(77,100)	(157,400)	(3,100)	2.0%	(160,400)	(163,700)	(167,000)	(170,300)
7.0 Unallocated Reserve	6,264,900		4,603,900	(1,661,000)	-26.5%	5,971,800	9,294,300	11,764,100	14,876,100
<b>Grand Total</b>	<b>\$ 113,158,500</b>	<b>\$ 51,316,500</b>	<b>\$ 112,692,200</b>	<b>\$ (466,300)</b>	<b>-0.4%</b>	<b>\$ 115,215,100</b>	<b>\$ 121,672,900</b>	<b>\$ 126,146,800</b>	<b>\$ 129,762,400</b>

### Five Year Financial Plan



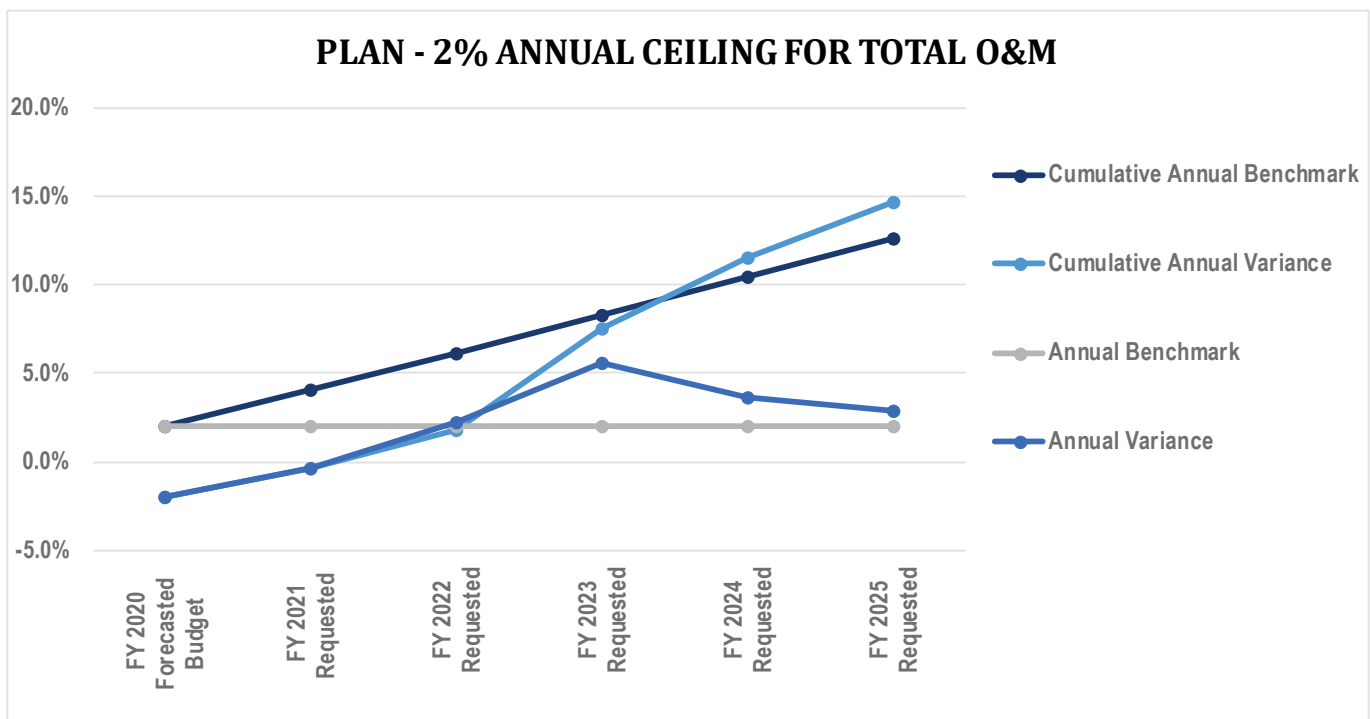
### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Wastewater Administration	\$ 2,507,800	\$ 823,000	\$ 2,667,300	\$ 159,500	6.4%	\$ 2,695,000	\$ 2,722,700	\$ 2,751,500	\$ 2,779,000
Water Resource Recovery Facility	84,183,300	40,493,300	86,374,600	2,191,300	2.6%	87,918,200	88,831,500	90,048,900	89,914,800
Industrial Waste Control	2,407,100	1,158,500	2,496,300	89,200	3.7%	2,511,500	2,573,900	2,575,900	2,719,600
Wastewater Engineering	2,202,500	814,500	2,453,300	250,800	11.4%	2,563,500	2,818,200	2,568,700	2,577,200
Wastewater Laboratories	4,447,900	2,273,100	4,558,500	110,600	2.5%	4,195,500	4,230,700	4,260,400	4,289,100
Combined Sewer Overflow	11,145,000	5,753,500	9,538,300	(1,606,700)	-14.4%	9,359,600	11,201,600	12,177,300	12,606,600
Wastewater Operations Unallocated	6,264,900		4,603,900	(1,661,000)	-26.5%	5,971,800	9,294,300	11,764,100	14,876,100
<b>Grand Total</b>	<b>\$ 113,158,500</b>	<b>\$ 51,315,900</b>	<b>\$ 112,692,200</b>	<b>\$ (466,300)</b>	<b>-0.4%</b>	<b>\$ 115,215,100</b>	<b>\$ 121,672,900</b>	<b>\$ 126,146,800</b>	<b>\$ 129,762,400</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Wastewater Operating Group's financial plan reflects a five-year overall increase of 14.7% while the entity-wide goal is a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).

This rate of growth is not unexpected as the planning of programs mature and a focus is placed on cost controls. As Wastewater Operations continues to focus on reliability through a proactive maintenance program and innovation the result will be an effective utility set to be sustainable into the future.



## Capital Outlay

Wastewater Operations Group capital outlay is funded by the Improvement & Extension (I&E) budget.

### *Five-Year Capital Outlay by Asset Category*

Asset Type	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Improvement &amp; Extension</b>	<b>\$ 11,171,800</b>	<b>\$ 10,871,000</b>	<b>\$ 7,540,300</b>	<b>\$ 5,695,900</b>	<b>\$ 6,864,300</b>	<b>\$ 11,844,700</b>
Buildings & Structures	1,007,500	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Leasehold Improvements	800,000	250,000	750,000	250,000	1,050,000	50,000
Machinery & Equipment	8,156,300	5,923,000	5,532,300	4,234,400	4,209,300	10,467,650
Computers & IT	2,605,000	1,300,000	2,910,200	800,000	-	566,500
Controls & Communication	85,000	90,000	50,000	102,000	2,650,000	7,420,000
Flow Measuring & Meters	720,000	531,000	610,000	145,000	120,000	120,000
Furniture & Fixtures	8,000	-	-	-	-	12,800
Heavy Equipment	-	850,000	-	-	-	-
Laboratory	133,000	25,000	84,100	167,700	34,000	27,000
Machinery & Equipment	-	68,000	-	-	68,000	-
Pipes, Gates & Valves	245,000	280,000	246,000	1,089,000	100,000	115,000
Process Equipment	790,000	224,000	359,000	411,200	308,000	410,000
Pumps & Motors	3,415,300	2,533,050	1,168,000	1,519,500	914,000	1,796,400
Tools, Shop & Warehouse	155,000	22,000	105,000	-	15,300	-
<b>Site Improvements</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
Lighting	50,000	50,000	50,000	50,000	50,000	50,000
<b>Vehicles</b>	<b>1,158,000</b>	<b>615,000</b>	<b>208,000</b>	<b>161,500</b>	<b>555,000</b>	<b>277,000</b>
Heavy Truck	385,000	-	-	-	475,000	-
Light Truck	495,000	590,000	80,000	110,000	80,000	80,000
Passenger	228,000	-	128,000	51,500	-	130,000
Utility Vehicle	50,000	25,000	-	-	-	67,000
<b>Non-Capitalizable Improvement</b>	<b>-</b>	<b>3,033,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>	<b>11,171,800</b>	<b>10,871,000</b>	<b>7,540,300</b>	<b>5,695,900</b>	<b>6,864,300</b>	<b>11,844,700</b>

### *Five-Year Capital Outlay by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 11,171,800	\$ 10,871,000	\$ 7,540,300	\$ 5,695,900	\$ 6,864,300	\$ 11,844,700
<b>Grand Total</b>	<b>\$ 11,171,800</b>	<b>\$ 10,871,000</b>	<b>\$ 7,540,300</b>	<b>\$ 5,695,900</b>	<b>\$ 6,864,300</b>	<b>\$ 11,844,700</b>

*Five-Year Capital Outlay by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Water Resource Recovery</b>						
Facility	\$ 8,420,500	\$ 6,023,000	\$ 5,661,200	\$ 2,893,000	\$ 2,296,300	\$ 2,739,500
Wastewater Engineering	258,000					
Industrial Waste Control	150,000	25,000	178,000	26,000	26,000	169,800
Wastewater Laboratories	135,000		34,100	141,700	8,000	
<b>Combined Sewer</b>						
<b>Overflow Facilities</b>	<b>2,208,300</b>	<b>4,823,000</b>	<b>1,667,000</b>	<b>2,635,200</b>	<b>4,534,000</b>	<b>8,935,400</b>
Combined Sewer Overflow		3,033,000				
Puritan Fenkell CSO	374,300	149,800	230,000	235,500	95,000	990,000
7 Mile CSO	451,800	5,200	131,000	35,000	60,000	1,256,400
Hubble Southfield CSO	180,000	110,000	260,000	110,000	2,710,000	110,000
Connor Creek CSO	220,000	462,000	302,000	197,500	42,000	42,000
Leib CSO	33,000	281,000	152,000	827,400	18,000	68,000
St Aubin CSO	140,000	325,000	275,000	573,000	285,000	6,140,000
Baby Creek CSO	424,200	307,000	222,000	324,800	229,000	234,000
Oakwood CSO	385,000	150,000	95,000	332,000	1,095,000	95,000
<b>Grand Total</b>	<b>\$ 11,171,800</b>	<b>\$ 10,871,000</b>	<b>\$ 7,540,300</b>	<b>\$ 5,695,900</b>	<b>\$ 6,864,300</b>	<b>\$ 11,844,700</b>

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget starts below. The expenses are listed in report order by cost center. Because many of GLWA's initiatives extend multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892001 - Chief Operating Officer</b>								
<b>Wastewater</b>	\$ 1,983,900	\$ 2,507,800	\$ 823,000	\$ 2,667,300	\$ 2,695,000	\$ 2,722,700	\$ 2,751,500	\$ 2,779,000
2.1 Salaries & Wages	1,065,600	1,108,500	591,200	1,168,100	1,168,100	1,168,100	1,168,100	1,168,100
2.3 Overtime	8,600	6,600	1,700	7,500	7,500	7,500	7,500	7,500
2.4 Employee Benefits	267,200	312,700	163,000	330,900	337,200	343,600	350,000	356,300
2.5 Transition Services	97,000	103,000	46,100	103,000	103,000	103,000	103,000	103,000
4.2 Supplies & Other	22,800	55,300	13,100	61,000	62,400	63,700	65,100	65,300
Memberships, Licenses & Subscriptions	1,000	3,000	400	3,000	3,100	3,100	3,200	3,200
Mileage and Parking	1,400	5,000	600	5,000	5,100	5,200	5,300	5,400
Office Supplies		9,000	6,400	9,000	9,200	9,400	9,600	9,700
Training and Internal Meetings	9,300	11,800	1,600	30,000	31,000	31,000	32,000	32,000
Travel	11,100	26,500	4,100	14,000	14,000	15,000	15,000	15,000
4.3 Contractual Services	526,100	1,020,000	9,800	1,000,000	1,020,000	1,040,000	1,061,000	1,082,000
5.1 Capital Program Allocation	(3,400)	(98,300)	(1,900)	(3,200)	(3,200)	(3,200)	(3,200)	(3,200)
<b>892201 - Wastewater Director</b>	\$ 4,777,000	\$ 5,285,600	\$ 2,100,200	\$ 5,136,200	\$ 5,285,300	\$ 5,313,900	\$ 5,342,900	\$ 5,372,500
2.1 Salaries & Wages	1,995,000	2,017,400	937,700	2,071,400	2,128,100	2,128,100	2,128,100	2,128,100
2.3 Overtime	437,600	433,300	195,700	431,100	431,100	431,100	431,100	431,100
2.4 Employee Benefits	845,400	762,400	426,400	788,100	818,400	833,900	849,300	864,800
2.5 Transition Services	1,149,200	1,417,200	283,800	1,157,600	1,205,600	1,205,600	1,205,600	1,205,600
4.2 Supplies & Other	277,000	375,300	175,000	488,000	498,100	507,200	516,800	526,900
Car Lease	46,100	-	39,100	185,000	189,000	192,000	196,000	200,000
Memberships, Licenses & Subscriptions	900	-	300	2,000	2,000	2,000	2,000	2,000
Mileage and Parking	200	-						
Office Supplies	4,100	-	800	5,000	5,100	5,200	5,300	5,400
Repairs & Maintenance-								
Equipment	163,700	140,300	97,000	200,000	204,000	208,000	212,000	216,000
Training and Internal Meetings	15,000	25,000	8,400	40,000	41,000	42,000	42,000	43,000
Travel	5,100	-		8,000	8,000	8,000	8,500	8,500
Tuition Refund		-		3,000	3,000	3,000	3,000	3,000
Capital Outlay less than \$5,000	41,900	210,000	29,400	45,000	46,000	47,000	48,000	49,000
4.3 Contractual Services	72,800	280,000	81,600	200,000	204,000	208,000	212,000	216,000
<b>892211 - Wastewater Engineering</b>	\$ 1,778,200	\$ 2,202,500	\$ 814,500	\$ 2,453,300	\$ 2,563,500	\$ 2,818,200	\$ 2,568,700	\$ 2,577,200
2.1 Salaries & Wages	1,551,200	1,525,900	722,700	1,623,000	1,667,200	1,667,200	1,667,200	1,667,200
2.3 Overtime	172,300	134,200	77,700	176,300	176,300	176,300	176,300	176,300
2.4 Employee Benefits	516,800	497,100	267,500	537,100	560,200	570,800	581,400	592,000
4.2 Supplies & Other	136,500	251,200	20,600	61,600	94,400	63,100	57,300	44,200
Memberships, Licenses & Subscriptions	800	5,100	3,600	6,500	5,400	6,700		
Mileage and Parking	12,600	10,200	6,300	12,600	12,600	12,700	12,700	12,700
Office Supplies	19,600	21,800	3,200	18,200	18,500	18,900	19,000	19,500
Operating Supplies	8,400	10,200	2,500	9,000	9,000	9,000	9,000	9,000
Repairs & Maintenance-								
Equipment	400	100		100	100	100	100	
Training and Internal Meetings	800	3,100	600	4,000	4,300	4,000	4,300	1,000
Travel	3,200	9,000		9,200	42,500	9,700	10,200	
Tuition Refund	4,500	4,000		2,000	2,000	2,000	2,000	2,000
Capital Outlay less than \$5,000	86,200	187,700	4,400					
4.3 Contractual Services	669,000	900,000	208,200	1,323,500	1,339,200	1,620,200	1,371,500	1,388,100
5.1 Capital Program Allocation	(1,267,600)	(1,105,900)	(482,200)	(1,268,200)	(1,273,800)	(1,279,400)	(1,285,000)	(1,290,600)

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892221 - Wastewater</b>								
<b>Operations</b>	\$ 28,038,000	\$ 26,411,900	\$ 12,539,000	\$ 26,683,500	\$ 27,334,400	\$ 27,850,500	\$ 28,379,600	\$ 28,947,700
2.1 Salaries & Wages	467,300	753,500	375,600	630,800	630,800	630,800	630,800	630,800
2.2 Workforce Development	600	-						
2.3 Overtime	200,400	147,700	109,200	186,100	186,100	186,100	186,100	186,100
2.4 Employee Benefits	223,200	263,200	131,700	246,700	251,400	256,200	260,900	265,700
2.5 Transition Services	316,300	302,900	164,400	359,400	503,400	503,400	503,400	503,400
3.1 Electric	10,235,600	10,319,000	5,286,900	10,498,000	10,707,000	10,921,000	11,139,000	11,361,000
3.2 Gas	3,013,400	2,999,900	1,117,300	3,094,000	3,155,000	3,218,000	3,282,000	3,347,000
3.3 Sewage Service	478,500	487,200	271,000	494,000	503,000	513,000	523,000	533,000
3.4 Water Service	3,014,900	3,023,800	1,314,200	3,331,000	3,397,000	3,464,000	3,533,000	3,603,000
4.1 Chemicals	2,500	2,000	5,000	2,500	2,500	2,500	2,500	2,500
4.2 Supplies & Other	6,507,500	4,254,400	1,944,400	4,033,000	4,110,200	4,196,500	4,279,900	4,365,200
Inspection and Permit Fees	235,700	250,200	212,700	250,000	255,000	260,100	265,100	270,400
Memberships, Licenses & Subscriptions	1,500	-	500	2,000	2,000	2,100	2,100	2,200
Mileage and Parking	200	-						
Office Supplies	27,400	51,000	15,500	47,000	48,000	49,000	50,000	51,000
Operating Supplies	91,300	181,000	52,600	125,000	127,500	130,000	132,700	135,300
Operating Supplies-Janitorial	29,700	-	29,000	30,000	31,000	31,000	32,000	32,000
Penalties	10,300	200,000						
Repairs & Maintenance- Equipment	68,100	296,000	16,300	100,000	102,000	104,000	106,000	108,000
Repairs & Maintenance- Facilities	2,998,200	3,009,000	1,566,600	3,200,000	3,260,000	3,330,000	3,396,000	3,464,000
Training and Internal Meetings	61,200	155,500	(6,800)	120,000	122,400	124,900	127,300	130,000
Travel	5,700	1,500	6,200	8,000	8,200	8,300	8,500	8,600
Tuition Refund		8,000		3,000	3,100	3,100	3,200	3,200
Uniforms, Laundry, Cleaning	89,800	102,200	49,000	103,000	105,000	107,000	109,000	111,500
Capital Outlay less than \$5,000	35,400	-	2,800	45,000	46,000	47,000	48,000	49,000
Inventory Adjustment (obsolescence, etc)	2,853,000	-						
4.3 Contractual Services	3,577,800	3,858,300	1,819,300	3,808,000	3,888,000	3,959,000	4,039,000	4,150,000
<b>892222 - Wastewater</b>								
<b>Process Control</b>	\$ 3,541,600	\$ 4,145,600	\$ 1,695,400	\$ 5,229,700	\$ 5,374,900	\$ 5,359,500	\$ 5,615,000	\$ 4,583,300
2.1 Salaries & Wages	1,130,100	1,203,200	565,300	1,296,400	1,345,000	1,345,000	1,345,000	1,345,000
2.2 Workforce Development	44,700	39,900	24,500					
2.3 Overtime	123,200	127,300	46,600	123,000	123,000	123,000	123,000	123,000
2.4 Employee Benefits	450,600	408,200	232,000	440,500	462,500	471,300	480,000	488,700
2.5 Transition Services		168,300		423,000	423,000	423,000	423,000	423,000
4.1 Chemicals	33,200		(800)					
4.2 Supplies & Other	548,400	855,000	243,400	881,200	938,000	895,100	1,134,800	607,200
Operating Supplies	14,000	7,100	2,800	7,100	7,100	7,100	7,300	7,300
Repairs & Maintenance- Equipment	56,100	133,300	52,500	134,600	136,000	138,400	140,800	140,600
Repairs & Maintenance-Hardware	278,100	255,000	86,400	692,600	692,100	692,700	792,000	403,400
Repairs & Maintenance-Software	98,100	10,000	92,500	22,200	22,400	22,700	23,000	18,000
Training and Internal Meetings	14,400	20,000	9,200	20,000	20,000	20,000	20,000	20,000
Tuition Refund	2,000							
Capital Outlay less than \$5,000	85,700	429,600		4,700	60,400	14,200	151,700	17,900
4.3 Contractual Services	1,304,700	1,404,100	614,600	2,127,200	2,146,200	2,166,200	2,174,600	1,663,100
5.2 Shared Services	(93,300)	(60,400)	(30,200)	(61,600)	(62,800)	(64,100)	(65,400)	(66,700)



Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892223 - Wastewater</b>								
<b>Primary Process</b>	\$ 7,889,400	\$ 7,463,600	\$ 3,686,900	\$ 7,836,000	\$ 8,013,900	\$ 8,045,900	\$ 8,077,800	\$ 8,085,600
2.1 Salaries & Wages	1,987,000	2,087,300	1,038,400	2,238,000	2,259,300	2,259,300	2,259,300	2,259,300
2.2 Workforce Development	42,100	39,900	23,500	67,600	50,700	50,700	33,800	
2.3 Overtime	484,200	469,600	256,500	542,700	547,900	547,900	547,900	547,900
2.4 Employee Benefits	1,015,600	866,900	595,600	972,200	1,000,300	1,011,400	1,022,300	1,024,900
2.5 Transition Services	828,100	453,900	185,600	449,100	449,100	449,100	449,100	449,100
4.1 Chemicals	1,697,400	2,086,000	912,500	1,731,400	1,818,000	1,818,000	1,818,000	1,818,000
4.2 Supplies & Other	1,658,400	1,304,000	543,200	1,675,000	1,708,500	1,743,000	1,777,600	1,813,200
Operating Supplies	63,200	40,000	34,700	60,000	61,200	62,400	63,700	65,000
Repairs & Maintenance- Equipment	1,581,400	1,264,000	506,000	1,600,000	1,632,000	1,665,000	1,698,000	1,732,000
Capital Outlay less than \$5,000	13,800	-	2,500	15,000	15,300	15,600	15,900	16,200
4.3 Contractual Services	152,700	156,000	131,600	160,000	163,200	166,500	169,800	173,200
6.0 Capital Outlay	23,900	-						
<b>892224 - Wastewater</b>								
<b>Secondary Process</b>	\$ 10,415,700	\$ 10,479,900	\$ 5,015,800	\$ 9,847,600	\$ 9,940,800	\$ 10,096,200	\$ 10,183,000	\$ 10,236,300
2.1 Salaries & Wages	2,005,300	2,215,400	1,042,200	2,065,800	2,065,800	2,065,800	2,065,800	2,065,800
2.2 Workforce Development	41,700	111,400	24,000					
2.3 Overtime	350,200	427,900	142,800	356,300	356,300	356,300	356,300	356,300
2.4 Employee Benefits	896,200	859,200	478,600	785,800	801,000	816,100	831,200	846,300
2.5 Transition Services	726,200	147,600	236,600	673,000	673,000	673,000	673,000	673,000
4.1 Chemicals	4,583,800	5,133,200	2,241,700	4,401,700	4,448,400	4,556,400	4,595,600	4,601,200
4.2 Supplies & Other	1,311,500	956,000	558,800	1,365,000	1,392,300	1,420,600	1,448,900	1,477,200
Operating Supplies	27,000	55,000	13,400	50,000	51,000	52,000	53,000	54,000
Repairs & Maintenance- Equipment	1,275,200	901,000	543,900	1,300,000	1,326,000	1,353,000	1,380,000	1,407,000
Tuition Refund	1,500	-						
Capital Outlay less than \$5,000	7,800	-	1,500	15,000	15,300	15,600	15,900	16,200
4.3 Contractual Services	500,800	629,200	291,100	200,000	204,000	208,000	212,200	216,500
<b>892225 - Wastewater</b>								
<b>Dewatering Process</b>	\$ 5,931,600	\$ 5,406,700	\$ 3,509,600	\$ 6,176,300	\$ 6,220,200	\$ 6,265,000	\$ 6,353,700	\$ 6,443,500
2.1 Salaries & Wages	1,897,600	2,139,400	941,200	2,167,200	2,167,200	2,167,200	2,167,200	2,167,200
2.2 Workforce Development	42,100	39,900	23,900					
2.3 Overtime	340,200	370,500	145,400	373,800	373,800	373,800	373,800	373,800
2.4 Employee Benefits	961,100	869,400	553,800	876,300	893,200	910,000	926,900	943,700
2.5 Transition Services	921,200	151,500	500,000	517,300	517,300	517,300	517,300	517,300
4.1 Chemicals	615,600	449,000	485,700	871,700	871,700	871,700	915,300	958,900
4.2 Supplies & Other	1,075,500	1,280,000	815,000	1,270,000	1,295,000	1,321,000	1,347,200	1,374,600
Operating Supplies	58,900	180,000	29,800	100,000	102,000	104,000	106,000	108,000
Repairs & Maintenance- Equipment	1,016,400	1,100,000	783,100	1,150,000	1,173,000	1,196,000	1,220,000	1,245,000
Tuition Refund	200	-						
Capital Outlay less than \$5,000		-	2,100	20,000	20,000	21,000	21,200	21,600
4.3 Contractual Services	78,300	107,000	44,600	100,000	102,000	104,000	106,000	108,000
<b>892226 - Wastewater</b>								
<b>Incineration Process</b>	\$ 5,424,800	\$ 4,724,000	\$ 2,156,800	\$ 5,167,800	\$ 5,310,600	\$ 5,359,100	\$ 5,408,200	\$ 5,458,800
2.1 Salaries & Wages	1,955,100	2,155,200	935,900	2,191,200	2,254,200	2,254,200	2,254,200	2,254,200
2.2 Workforce Development	73,800	155,000	48,700					
2.3 Overtime	226,500	218,100	120,300	246,500	253,600	253,600	253,600	253,600
2.4 Employee Benefits	1,032,800	890,600	507,900	863,300	904,200	921,200	938,300	955,400
2.5 Transition Services	1,067,400	103,000	213,500	301,500	301,500	301,500	301,500	301,500
4.1 Chemicals	9,100	68,000	12,100	15,300	16,100	16,100	16,100	16,100
4.2 Supplies & Other	772,000	984,100	277,100	1,150,000	1,173,000	1,196,500	1,220,000	1,245,000
Operating Supplies	22,800	25,000	16,000	25,000	25,500	26,000	26,500	27,000
Repairs & Maintenance- Equipment	749,200	954,000	259,100	1,100,000	1,122,000	1,144,500	1,167,000	1,191,000
Tuition Refund			600					
Capital Outlay less than \$5,000		5,100	1,400	25,000	25,500	26,000	26,500	27,000
4.3 Contractual Services	288,100	150,000	41,300	400,000	408,000	416,000	424,500	433,000

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892227 - Bio-dryer Facility, Central Offload &amp; Hauling</b>	<b>\$ 20,145,000</b>	<b>\$ 20,266,000</b>	<b>\$ 9,790,200</b>	<b>\$ 20,297,500</b>	<b>\$ 20,438,100</b>	<b>\$ 20,541,400</b>	<b>\$ 20,688,700</b>	<b>\$ 20,787,100</b>
2.1 Salaries & Wages	387,400	451,000	208,500	477,300	477,300	477,300	477,300	477,300
2.3 Overtime	86,000	62,700	53,400	70,400	70,400	70,400	70,400	70,400
2.4 Employee Benefits	186,900	177,900	102,400	196,300	200,100	203,800	207,600	211,400
2.5 Transition Services	179,900	103,000	89,800					
3.1 Electric	1,049,800	1,100,000	557,200	1,065,000	1,086,000	1,107,000	1,129,000	1,151,000
3.2 Gas	2,186,200	2,160,000	990,100	2,187,000	2,230,000	2,274,000	2,319,000	2,365,000
3.3 Sewage Service	349,700	250,000	156,400	350,000	357,000	364,000	371,000	378,000
3.4 Water Service	178,100	136,400	79,200	179,000	182,000	185,000	188,000	191,000
4.3 Contractual Services	15,541,000	15,825,000	7,553,200	15,772,500	15,835,300	15,859,900	15,926,400	15,943,000
<b>892231 - Industrial Waste Control</b>	<b>\$ 2,708,600</b>	<b>\$ 2,407,100</b>	<b>\$ 1,158,500</b>	<b>\$ 2,496,300</b>	<b>\$ 2,511,500</b>	<b>\$ 2,573,900</b>	<b>\$ 2,575,900</b>	<b>\$ 2,719,600</b>
2.1 Salaries & Wages	1,432,500	1,538,400	780,900	1,541,900	1,541,900	1,541,900	1,541,900	1,541,900
2.3 Overtime	15,100	12,300	14,900	17,100	17,100	17,100	17,100	17,100
2.4 Employee Benefits	607,500	527,200	332,300	530,500	540,700	550,900	561,100	571,300
2.5 Transition Services		-		18,100	36,100	36,100	36,100	36,100
3.1 Electric	43,400	-						
3.2 Gas	21,900	-						
3.3 Sewage Service	12,000	-						
3.4 Water Service	2,100	-						
4.1 Chemicals	200	-						
4.2 Supplies & Other	356,100	156,300	16,200	205,000	182,000	214,200	196,000	234,500
Advertising	44,800	35,000	400	52,000	52,000	55,000	55,000	55,000
Inspection and Permit Fees		600						
Memberships, Licenses & Subscriptions		12,500		2,500	10,500	2,500	10,500	2,500
Mileage and Parking		1,600		800	800	800	800	800
Office Supplies	22,200	18,500	3,600	17,500	17,500	19,500	22,500	22,500
Operating Supplies	12,800	25,000	8,400	30,000	35,000	35,000	40,000	40,000
Operating Supplies-Janitorial	3,800	5,000		5,000	5,000	5,000	5,000	5,000
Postage		20,000	300	22,500	22,500	22,700	25,000	25,000
Printing		5,000		2,500	2,500		2,500	
Repairs & Maintenance- Equipment	100	9,000		10,000	10,000	10,000	10,000	12,500
Repairs & Maintenance- Facilities	7,500	-						
Training and Internal Meetings	2,700	14,500	900	9,000	9,000	9,000	9,000	9,000
Travel	1,100	1,200	1,000	1,200	1,200	1,200	1,200	1,200
Uniforms, Laundry, Cleaning	9,100	3,600	1,600	4,000	4,000	4,000	4,000	4,000
Capital Outlay less than \$5,000	252,000	4,800		48,000	12,000	49,500	10,500	57,000
<b>4.3 Contractual Services</b>	<b>217,800</b>	<b>172,900</b>	<b>14,200</b>	<b>183,700</b>	<b>193,700</b>	<b>213,700</b>	<b>223,700</b>	<b>318,700</b>

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892235 - Wastewater</b>								
<b>Laboratories</b>	\$ 4,047,300	\$ 4,447,900	\$ 2,273,100	\$ 4,558,500	\$ 4,195,500	\$ 4,230,700	\$ 4,260,400	\$ 4,289,100
2.1 Salaries & Wages	2,014,300	2,472,900	1,215,700	2,439,700	2,439,700	2,439,700	2,439,700	2,439,700
2.3 Overtime	283,000	283,200	102,300	309,900	309,900	309,900	309,900	309,900
2.4 Employee Benefits	767,200	847,500	466,100	847,100	863,400	879,700	896,000	912,300
2.5 Transition Services				168,300	168,300	168,300	168,300	168,300
4.1 Chemicals	72,800	154,300	63,900	167,300	159,300	164,000	167,500	169,500
4.2 Supplies & Other	799,900	380,600	322,700	433,500	109,000	101,900	109,400	116,600
Car Lease	9,900		13,300	9,800	10,000	11,000	12,000	13,000
Memberships, Licenses & Subscriptions	700		200	1,500	6,000	1,500	1,000	7,500
Office Supplies	5,600		4,000	1,000	1,000	1,000	1,000	1,000
Operating Supplies	150,400	59,200	79,000	59,800	60,700	61,400	62,700	63,500
Rentals-Buildings	457,100	224,400	192,700	276,300				
Repairs & Maintenance- Equipment	3,200	27,500	5,000	17,600	17,800	18,000	18,200	19,600
Repairs & Maintenance- Facilities	154,700	60,000	25,300	60,000				
Training and Internal Meetings	1,900	4,000		4,000	4,000	4,000	4,000	5,000
Uniforms, Laundry, Cleaning	2,800	3,500	1,700	3,500	3,500	3,500	3,500	3,500
Capital Outlay less than \$5,000	13,600	2,000	1,500		6,000	1,500	7,000	3,500
4.3 Contractual Services	110,100	309,400	102,400	192,700	145,900	167,200	169,600	172,800
<b>892270 - Combined Sewer     Overflow</b>	\$ 4,073,900	\$ 4,406,300	\$ 2,095,400	\$ 4,677,400	\$ 4,725,900	\$ 4,748,900	\$ 4,306,900	\$ 4,846,400
2.1 Salaries & Wages	1,366,800	1,541,600	789,900	1,729,100	1,729,100	1,729,100	1,729,100	1,729,100
2.2 Workforce Development			2,000	17,700				
2.3 Overtime	524,700	349,900	245,500	564,800	564,800	564,800	564,800	564,800
2.4 Employee Benefits	586,000	597,500	361,600	718,300	732,100	738,000	751,700	765,400
2.5 Transition Services	274,300	749,700		437,400	437,400	437,400	437,400	437,400
4.2 Supplies & Other	49,900	20,800	41,000	88,400	98,300	107,600	116,400	125,200
Car Lease	24,500		20,500					
Inspection and Permit Fees	(300)							
Memberships, Licenses & Subscriptions	700		100	500	500	500	500	500
Mileage and Parking	4,200	2,400	2,400	2,400	2,600	2,800	3,000	3,200
Office Supplies			1,100					
Operating Supplies	1,900	1,500	1,200	71,500	79,500	87,500	95,500	103,500
Training and Internal Meetings	9,300	3,000	10,900	2,000	3,000	3,000	3,000	3,000
Travel	3,700	5,500	1,600	4,000	4,500	5,000	5,500	6,000
Tuition Refund	1,200	1,500		1,000	1,000	1,500	1,500	1,500
Uniforms, Laundry, Cleaning	4,700	6,900	3,200	7,000	7,200	7,300	7,400	7,500
4.3 Contractual Services	1,359,300	1,201,000	681,200	1,195,500	1,220,800	1,246,900	1,278,700	1,300,700
5.1 Capital Program Allocation	(54,900)	(35,200)	(16,400)	(54,400)	(54,600)	(54,800)	(550,700)	(55,300)
5.2 Shared Services	(32,200)	(19,000)	(9,400)	(19,400)	(19,700)	(20,100)	(20,500)	(20,900)
<b>892271 - Puritan Fenkell</b>								
<b>Combined Sewer Overflow</b>	\$ 402,900	\$ 293,000	\$ 162,800	\$ 301,100	\$ 307,200	\$ 313,500	\$ 320,000	\$ 324,700
3.1 Electric	44,200	50,000	22,200	46,000	46,000	46,000	46,000	46,000
3.2 Gas	20,100	5,500	5,700	21,000	21,000	21,000	21,000	21,000
3.3 Sewage Service	10,500	11,000	3,500	10,000	10,000	10,000	10,000	10,000
3.4 Water Service	9,100	9,000	3,800	9,100	9,300	9,400	9,600	9,800
4.1 Chemicals	13,200	11,000		12,700	12,700	13,000	13,000	13,000
4.2 Supplies & Other	158,900	206,500	119,200	202,300	208,200	214,100	220,400	224,900
Office Supplies	200	200	200	200	200	200	200	200
Operating Supplies	1,300	30,500	8,400	31,000	31,600	32,200	32,800	33,400
Repairs & Maintenance- Equipment	109,900	85,800	58,900	72,400	73,700	74,900	76,200	77,300
Repairs & Maintenance- Facilities	47,500	90,000	51,700	98,700	102,700	106,800	111,200	114,000
4.3 Contractual Services	146,900	-	8,400					

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892272 - Seven Mile</b>								
Combined Sewer Overflow	\$ 261,600	\$ 130,300	\$ 102,800	\$ 152,100	\$ 154,400	\$ 157,100	\$ 159,500	\$ 156,400
3.1 Electric	50,100	21,000	16,700	42,000	42,000	42,000	42,000	42,000
3.2 Gas	11,100	15,500	3,300	12,000	12,000	12,000	12,000	12,000
3.3 Sewage Service	7,800	7,500	5,200	8,000	8,000	8,000	8,000	8,000
3.4 Water Service	45,600	35,000	3,800	42,000	43,000	44,000	45,000	46,000
4.1 Chemicals	6,700	5,400		7,800	7,800	8,000	8,000	8,000
4.2 Supplies & Other	35,200	45,900	64,300	40,300	41,600	43,100	44,500	40,400
Operating Supplies	2,900	10,500	700	11,100	11,600	12,200	12,800	13,400
Repairs & Maintenance- Equipment	18,500	16,200	15,000	16,700	17,200	17,800	18,300	13,300
Repairs & Maintenance- Facilities	13,800	19,200	48,600	12,500	12,800	13,100	13,400	13,700
<b>4.3 Contractual Services</b>	<b>105,100</b>	<b>-</b>	<b>9,500</b>					
<b>892273 - Hubble Southfield</b>								
Combined Sewer Overflow	\$ 652,400	\$ 472,400	\$ 268,700	\$ 447,800	\$ 453,500	\$ 462,500	\$ 468,300	\$ 474,800
3.1 Electric	66,800	62,300	31,300	66,000	67,000	68,000	69,000	70,000
3.2 Gas	20,400	25,400	7,500	21,000	21,000	21,000	21,000	21,000
3.3 Sewage Service	2,100	1,900	500	2,000	2,000	2,000	2,000	2,000
3.4 Water Service	108,600	105,000	42,700	108,000	110,000	112,000	114,000	116,000
4.1 Chemicals	116,800	152,000	30,900	122,200	122,200	125,300	125,300	125,300
4.2 Supplies & Other	269,200	125,800	115,700	128,600	131,300	134,200	137,000	140,500
Office Supplies		-	800					
Operating Supplies	13,400	10,500	13,300	11,100	11,600	12,200	12,800	13,600
Repairs & Maintenance- Equipment	182,700	99,100	67,800	101,100	103,000	105,100	107,100	109,400
Repairs & Maintenance- Facilities	73,100	16,200	33,800	16,400	16,700	16,900	17,100	17,500
<b>4.3 Contractual Services</b>	<b>68,500</b>	<b>-</b>	<b>40,100</b>					
<b>892274 - Leib</b>								
Combined Sewer Overflow	\$ 532,300	\$ 145,800	\$ 249,400	\$ 152,000	\$ 153,900	\$ 156,200	\$ 158,000	\$ 160,600
3.1 Electric	52,000	28,800	18,600	45,000	45,000	45,000	45,000	45,000
3.2 Gas	15,600	18,000	6,100	16,000	16,000	16,000	16,000	16,000
3.3 Sewage Service	3,000	2,500	3,500	3,000	3,000	3,000	3,000	3,000
3.4 Water Service	1,700	5,000	1,900	2,000	2,000	2,000	2,000	2,000
4.1 Chemicals	15,100	25,000	2,000	17,900	17,900	18,300	18,300	18,300
4.2 Supplies & Other	303,100	66,500	208,500	68,100	70,000	71,900	73,700	76,300
Office Supplies	1,700	-						
Operating Supplies	5,200	5,000	4,400	5,200	5,500	5,800	6,100	6,400
Repairs & Maintenance- Equipment	184,000	53,300	180,700	54,600	56,000	57,400	58,800	60,900
Repairs & Maintenance- Facilities	112,200	8,200	20,500	8,300	8,500	8,700	8,800	9,000
Capital Outlay less than \$5,000		-	2,900					
<b>4.3 Contractual Services</b>	<b>141,800</b>	<b>-</b>	<b>8,800</b>					
<b>892275 - St Aubin</b>								
Combined Sewer Overflow	\$ 1,332,300	\$ 165,900	\$ 119,600	\$ 140,300	\$ 141,900	\$ 144,300	\$ 146,200	\$ 148,200
3.1 Electric	25,600	29,300	12,600	26,000	26,000	26,000	26,000	26,000
3.2 Gas	8,500	6,000	1,900	8,000	8,000	8,000	8,000	8,000
3.3 Sewage Service	2,200	2,500	1,000	2,500	2,500	2,500	2,500	2,500
3.4 Water Service	3,200	2,500	1,600	4,000	4,000	4,000	4,000	4,000
4.1 Chemicals	21,500	32,000	9,000	24,300	24,300	24,900	24,900	24,900
4.2 Supplies & Other	1,166,600	93,600	107,700	75,500	77,100	78,900	80,800	82,800
Operating Supplies	12,000	10,500	6,400	11,200	11,600	12,200	12,800	13,400
Repairs & Maintenance- Equipment	241,100	53,000	14,300	54,100	55,200	56,300	57,500	58,700
Repairs & Maintenance- Facilities	907,800	30,100	83,300	10,200	10,300	10,400	10,500	10,700
Capital Outlay less than \$5,000	5,700	-	3,700					
<b>4.3 Contractual Services</b>	<b>104,700</b>	<b>-</b>	<b>(14,200)</b>					

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892276 - Connor Creek</b>								
Combined Sewer Overflow	\$ 1,970,100	\$ 1,250,100	\$ 1,574,900	\$ 1,268,200	\$ 1,279,300	\$ 1,304,900	\$ 1,317,400	\$ 1,329,500
3.1 Electric	241,800	255,000	143,900	244,000	248,000	252,000	257,000	262,000
3.2 Gas	77,300	57,200	26,400	73,000	74,000	75,000	76,000	77,000
3.3 Sewage Service	77,600	125,000	190,000	83,000	84,000	85,000	86,000	87,000
3.4 Water Service	29,500	55,000	81,000	30,000	30,000	30,000	30,000	30,000
4.1 Chemicals	582,600	535,000	557,100	575,400	575,400	589,800	589,800	589,800
4.2 Supplies & Other	765,100	222,900	525,300	262,800	267,900	273,100	278,600	283,700
Office Supplies	6,700	5,100	4,500	5,200	5,300	5,400	5,500	5,700
Operating Supplies	33,700	15,000	25,100	15,700	16,500	17,400	18,300	19,200
Repairs & Maintenance- Equipment	402,200	167,500	321,500	171,300	175,200	179,100	183,200	187,000
Repairs & Maintenance- Facilities	246,600	35,300	174,200	70,600	70,900	71,200	71,600	71,800
Capital Outlay less than \$5,000	75,900	-	-	-	-	-	-	-
4.3 Contractual Services	196,200	-	51,200	-	-	-	-	-
<b>892277 - Baby Creek</b>								
Combined Sewer Overflow	\$ 1,553,200	\$ 2,974,900	\$ 353,000	\$ 1,119,800	\$ 878,200	\$ 2,443,800	\$ 3,968,800	\$ 3,801,600
3.1 Electric	171,600	151,000	45,200	157,000	160,000	163,000	166,000	169,000
3.2 Gas	57,500	38,800	23,000	53,000	54,000	55,000	56,000	57,000
3.3 Sewage Service	-	7,000	-	-	-	-	-	-
3.4 Water Service	-	5,000	-	-	-	-	-	-
4.1 Chemicals	288,800	350,000	37,500	289,300	289,300	296,500	296,500	296,500
4.2 Supplies & Other	481,400	2,423,100	145,200	620,500	374,900	1,929,300	3,450,300	3,279,100
Office Supplies	600	-	200	-	-	-	-	-
Operating Supplies	22,000	10,500	8,600	11,000	11,600	12,200	12,800	13,500
Repairs & Maintenance- Equipment	231,800	67,300	96,800	79,500	83,300	87,100	107,500	110,600
Repairs & Maintenance- Facilities	227,000	2,345,300	39,600	530,000	280,000	1,830,000	3,330,000	3,155,000
4.3 Contractual Services	553,900	-	102,100	-	-	-	-	-
<b>892278 - Oakwood</b>								
Combined Sewer Overflow	\$ 1,823,900	\$ 1,306,300	\$ 833,700	\$ 1,280,000	\$ 1,271,100	\$ 1,476,500	\$ 1,318,600	\$ 1,371,200
3.1 Electric	348,100	475,000	137,600	349,000	355,000	362,000	369,000	376,000
3.2 Gas	200	18,300	-	6,000	6,000	6,000	6,000	6,000
3.3 Sewage Service	465,500	385,600	207,100	465,000	474,000	483,000	492,000	501,000
3.4 Water Service	176,700	190,000	90,700	175,000	178,000	181,000	184,000	187,000
4.1 Chemicals	123,800	110,000	38,600	121,100	121,100	124,100	124,100	124,100
4.2 Supplies & Other	669,400	127,400	334,400	163,900	137,000	320,400	143,500	177,100
Office Supplies	900	-	300	-	-	-	-	-
Operating Supplies	15,900	10,500	10,900	11,200	11,600	12,200	12,800	13,400
Repairs & Maintenance- Equipment	294,700	96,900	229,800	97,700	70,400	103,200	75,700	108,700
Repairs & Maintenance- Facilities	357,900	20,000	91,300	55,000	55,000	205,000	55,000	55,000
Capital Outlay less than \$5,000	-	-	2,100	-	-	-	-	-
4.3 Contractual Services	40,200	-	25,300	-	-	-	-	-

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892279 - Belle Isle</b>								
Combined Sewer Overflow	\$ 86,100	\$ -	\$ (6,800)	\$ (400)	\$ (5,800)	\$ (6,100)	\$ 13,600	\$ (6,800)
4.1 Chemicals	3,700	11,000	1,800	5,300	5,300	5,400	5,400	5,400
4.2 Supplies & Other	171,000	63,900	16,200	70,700	66,800	68,000	89,300	70,500
Operating Supplies	7,700	4,200		4,400	4,600	4,900	5,200	5,500
Repairs & Maintenance- Equipment	9,900	30,400	900	36,300	32,200	33,100	34,100	35,000
Repairs & Maintenance- Facilities	153,400	29,300	15,300	30,000	30,000	30,000	50,000	30,000
4.3 Contractual Services	15,400	-	12,700					
5.2 Shared Services	(104,000)	(74,900)	(37,500)	(76,400)	(77,900)	(79,500)	(81,100)	(82,700)
<b>897600 - Wastewater System</b>								
Operations Unallocated		\$ 6,264,900		\$ 4,603,900	\$ 5,971,800	\$ 9,294,300	\$ 11,764,100	\$ 14,876,100
7.0 Unallocated Reserve		6,264,900		4,603,900	5,971,800	9,294,300	11,764,100	14,876,100
<b>Grand Total</b>	<b>\$ 109,369,800</b>	<b>\$ 113,158,500</b>	<b>\$ 51,316,500</b>	<b>\$ 112,692,200</b>	<b>\$ 115,215,100</b>	<b>\$ 121,672,900</b>	<b>\$ 126,146,800</b>	<b>\$ 129,762,400</b>

## Highlights

The Wastewater Operations Area *Pumping (Lift) Stations* strategic initiatives include the following.

❖ **Maximize pumping reliability**

Regularly scheduled preventive maintenance is necessary and required to maintain the condition of all pumping (lift) stations.

❖ **Minimize energy usage**

Energy consumption is dependent on flow rate, total pressure, climate and overall pump efficiency. Energy can be minimized through proper preventive maintenance in order to maintain the condition of all pumping (lift) stations.

The table below shows how the wastewater operations area pumping (lift) stations strategic initiatives relate to the organizational strategic goals.

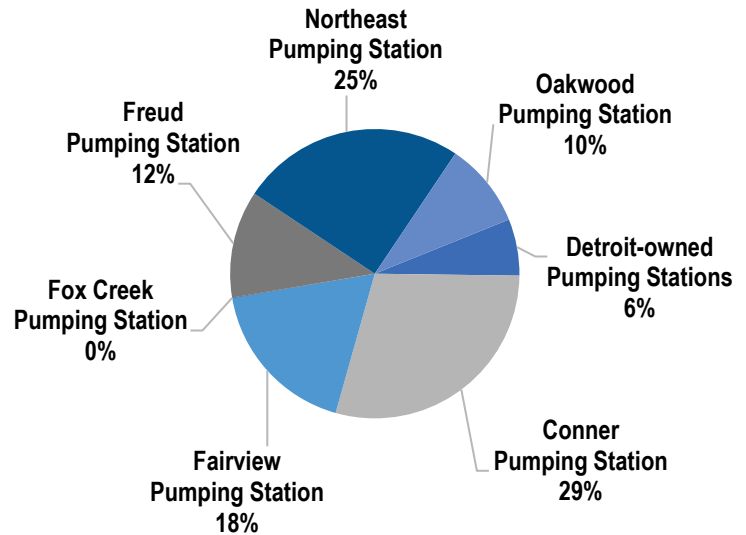
		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Wastewater Pump Stations Strategic Initiatives	Maximize pumping reliability				x	x		x				
	Minimize energy usage		x		x	x						



## Organization

The Wastewater Operations Pumping (Lift) Stations are facilities designed to move wastewater from lower to higher elevation, particularly where the elevation of the source is not sufficient for gravity flow and/or when the use of gravity conveyance will result in excessive excavation depths and high sewer construction costs.

### FY 2021 REQUEST BY TEAM

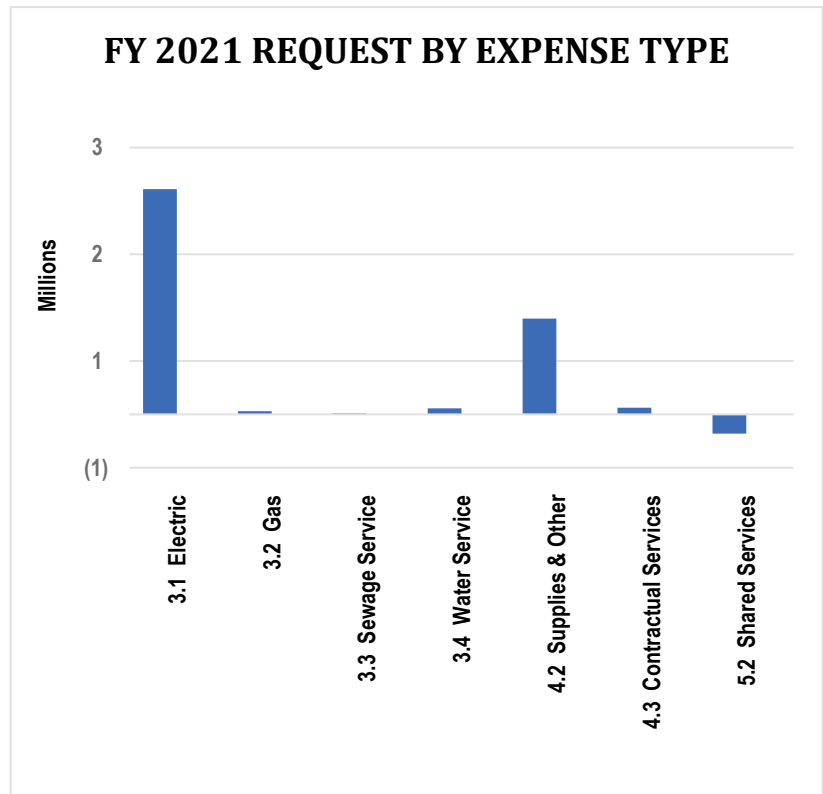


## Expense Categories

There is one major category of expenses in the Wastewater Operations pumping stations Operations and Maintenance Budget as listed below.

### ❖ Electric Utilities

Electric utilities is the highest expense category for Wastewater Operations pumping (lift) stations. Lift stations require a significant amount of power. Typically, power costs account for 85 to 95 percent of the total operation and maintenance costs and are directly proportional to the unit cost of power and the actual power used by the lift station pumps.



## Biennial Budget Request

The biennial budget reflects an overall increase in FY 2021 of \$157,600. Key factors that impact the FY 2021 budget include the following.

- ❖ Energy consumption being directly proportional to the unit cost of power and the actual power used by the lift station pumps (-\$181,800).
- ❖ Annual maintenance costs vary, depending on the complexity of the equipment and instrumentation (\$290,700).
- ❖ Contractual services increase based on previous years' activity (\$62,500).

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
3.1 Electric	\$ 2,200,900	\$ 2,291,300	\$ 1,024,600	\$ 2,109,500	\$ (181,800)	-7.9%	\$ 2,107,500
3.2 Gas	28,200	28,300	9,300	29,000	700	2.5%	29,000
3.3 Sewage Service	8,700	11,200	4,400	10,500	(700)	-6.3%	10,500
3.4 Water Service	59,800	66,300	31,100	56,000	(10,300)	-15.5%	56,000
4.2 Supplies & Other	852,300	606,800	452,900	897,500	290,700	47.9%	898,000
4.3 Contractual Services	63,000	-	1,200	62,500	62,500	0.0%	62,500
5.2 Shared Services	(484,200)	(177,300)	(88,600)	(180,800)	(3,500)	2.0%	(184,500)
<b>Grand Total</b>	<b>\$ 2,728,700</b>	<b>\$ 2,826,600</b>	<b>\$ 1,434,900</b>	<b>\$ 2,984,200</b>	<b>\$ 157,600</b>	<b>5.6%</b>	<b>\$ 2,979,000</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Pumping Stations</b>							
- Wastewater Operations	\$ 2,728,700	\$ 2,826,600	\$ 1,434,900	\$ 2,984,200	\$ 157,600	5.6%	\$ 2,979,000
Detroit-owned							
Pumping Stations	(146,700)	-	72,700	188,700	188,700	0.0%	185,500
Belle Isle Pumping Station	(82,200)	-	(14,900)	(6,000)	(6,000)	0.0%	(6,700)
Blue Hill Pumping Station	38,800	-	82,600	132,500	132,500	0.0%	131,000
Fischer Pumping Station	(62,300)	-	(3,200)	(5,100)	(5,100)	0.0%	(5,300)
Woodmere Pumping Station	(41,000)	-	8,200	67,300	67,300	0.0%	66,500
Conner Pumping Station	805,500	899,400	337,100	870,000	(29,400)	-3.3%	870,000
Fairview Pumping Station	486,100	680,200	255,700	535,000	(145,200)	-21.3%	535,000
Fox Creek Pumping Station	900	18,500	300	2,000	(16,500)	-89.2%	2,000
Freud Pumping Station	328,200	281,600	229,200	357,500	75,900	27.0%	357,500
Northeast Pumping Station	967,500	750,000	497,700	748,000	(2,000)	-0.3%	746,000
Oakwood Pumping Station	287,200	196,900	42,200	283,000	86,100	43.7%	283,000
<b>Grand Total</b>	<b>\$ 2,728,700</b>	<b>\$ 2,826,600</b>	<b>\$ 1,434,900</b>	<b>\$ 2,984,200</b>	<b>\$ 157,600</b>	<b>5.6%</b>	<b>\$ 2,979,000</b>

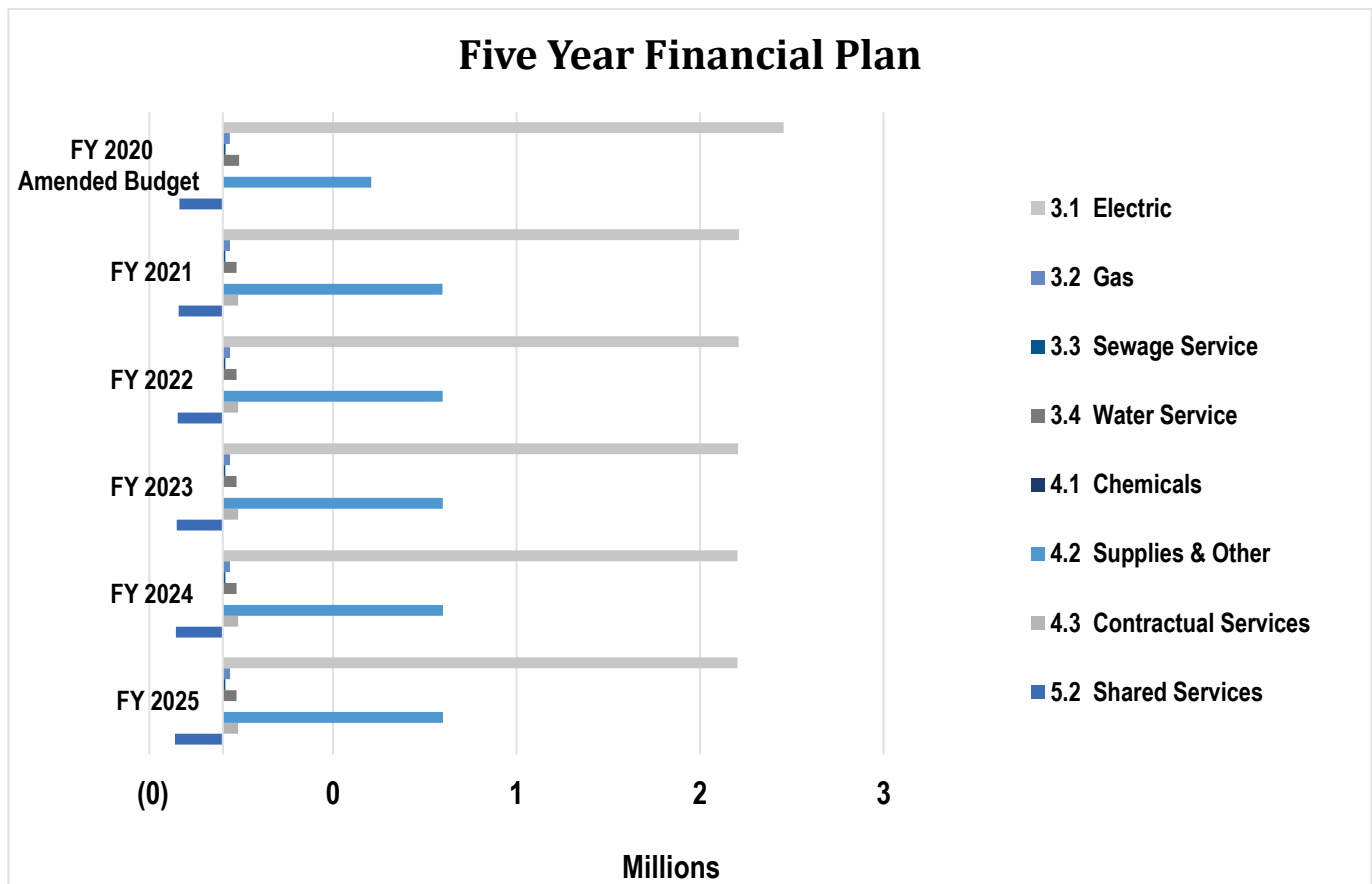
## Personnel Budget

Personnel budget is not a component of the Wastewater Operations Area Pumping (Lift) Stations.

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
3.1 Electric	\$ 2,291,300	\$ 1,024,600	\$ 2,109,500	\$ (181,800)	-7.9%	\$ 2,107,500	\$ 2,105,400	\$ 2,103,300	\$ 2,103,300
3.2 Gas	28,300	9,300	29,000	700	2.5%	29,000	29,000	29,000	29,000
3.3 Sewage Service	11,200	4,400	10,500	(700)	-6.3%	10,500	10,500	10,500	10,500
3.4 Water Service	66,300	31,100	56,000	(10,300)	-15.5%	56,000	56,000	56,000	56,000
4.2 Supplies & Other	606,800	452,900	897,500	290,700	47.9%	898,000	898,500	899,100	899,100
4.3 Contractual Services	-	1,200	62,500	62,500	0.0%	62,500	62,500	62,500	62,500
5.2 Shared Services	(177,300)	(88,600)	(180,800)	(3,500)	2.0%	(184,500)	(188,200)	(192,000)	(196,000)
<b>Grand Total</b>	<b>\$ 2,826,600</b>	<b>1,434,900</b>	<b>\$ 2,984,200</b>	<b>\$ 157,600</b>	<b>5.6%</b>	<b>\$ 2,979,000</b>	<b>\$ 2,973,700</b>	<b>\$ 2,968,400</b>	<b>\$ 2,964,400</b>

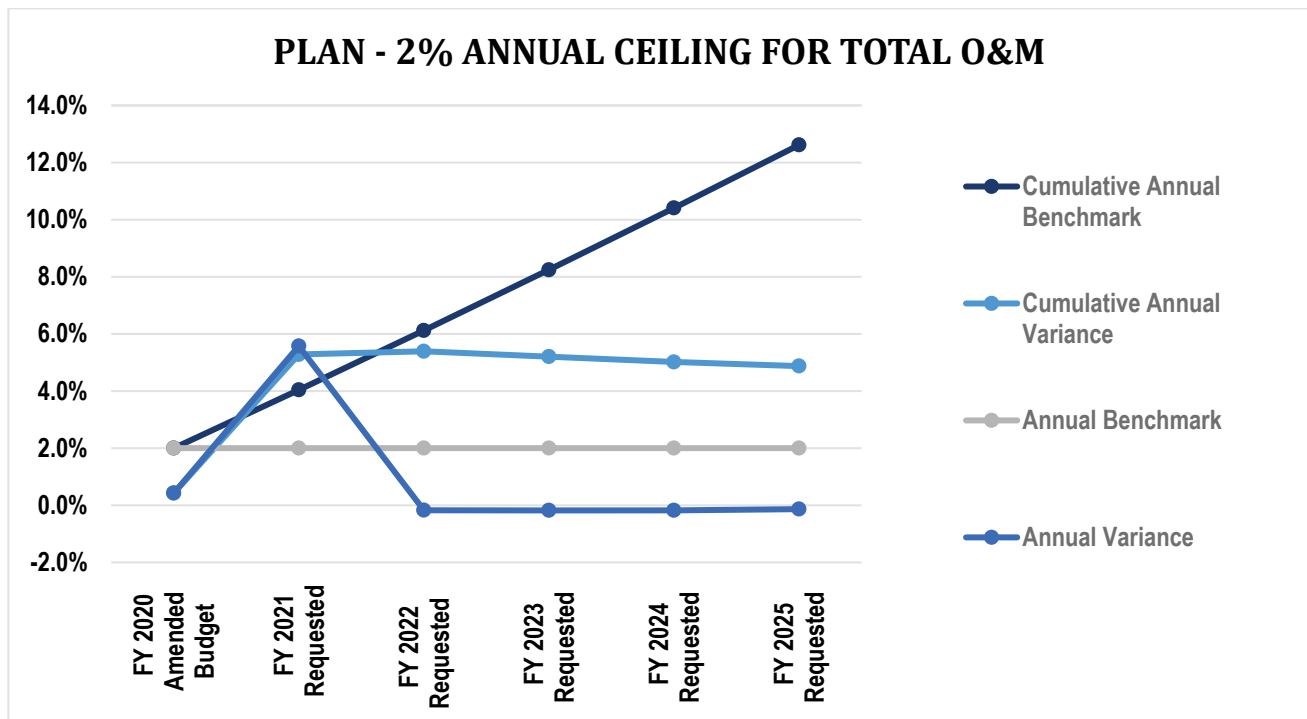


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Detroit-owned</b>									
Pumping Stations	\$ -	\$ 72,700	\$ 188,700	\$ 188,700	N/A	\$ 185,500	\$ 182,300	\$ 179,100	\$ 175,100
Belle Isle Pumping Station	-	(14,900)	(6,000)	(6,000)	N/A	(6,700)	(7,500)	(8,300)	(9,500)
Blue Hill Pumping Station	-	82,600	132,500	132,500	N/A	131,000	129,500	127,900	126,300
Fischer Pumping Station	-	(3,200)	(5,100)	(5,100)	N/A	(5,300)	(5,400)	(5,500)	(5,800)
Woodmere Pumping Station	-	8,200	67,300	67,300	N/A	66,500	65,700	65,000	64,100
Conner Pumping Station	899,400	337,100	870,000	(29,400)	-3.3%	870,000	870,000	870,000	870,000
Fairview Pumping Station	680,200	255,700	535,000	(145,200)	-21.3%	535,000	535,000	535,000	535,000
Fox Creek Pumping Station	18,500	300	2,000	(16,500)	-89.2%	2,000	2,000	2,000	2,000
Freud Pumping Station	281,600	229,200	357,500	75,900	27.0%	357,500	357,500	357,500	357,500
Northeast Pumping Station	750,000	497,700	748,000	(2,000)	-0.3%	746,000	743,900	741,800	741,800
Oakwood Pumping Station	196,900	42,200	283,000	86,100	43.7%	283,000	283,000	283,000	283,000
<b>Grand Total</b>	<b>\$ 2,826,600</b>	<b>\$ 1,434,900</b>	<b>\$ 2,984,200</b>	<b>\$ 157,600</b>	<b>5.6%</b>	<b>\$ 2,979,000</b>	<b>\$ 2,973,700</b>	<b>\$ 2,968,400</b>	<b>\$ 2,964,400</b>

### Alignment with Entity-wide Annual O&M Ceiling Goal of 2%

The Wastewater Operations pumping (lift) stations Group's financial plan reflects a five-year overall increase of 4.9% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).



**Capital Outlay**

Capital Outlay is not a component of the Wastewater Operations Area Pumping (Lift) Stations budget.

**Line Item Budget and Financial Plan**

The five-year plan with a line item expense budget begins on the next page. The expenses are listed in report order by cost center. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>892342 - Belle Isle Pumping Station</b>	(82,200)	-	(14,900)	(6,000)	(6,700)	(7,500)	(8,300)	(9,500)
4.2 Supplies & Other	56,400	55,300	12,700	50,400	50,800	51,200	51,600	51,600
Repairs & Maintenance-Equipment	56,400	55,300	12,700	50,400	50,800	51,200	51,600	51,600
<b>5.2 Shared Services</b>	(138,600)	(55,300)	(27,600)	(56,400)	(57,500)	(58,700)	(59,900)	(61,100)
Shared Services Reimbursement	(138,600)	(55,300)	(27,600)	(56,400)	(57,500)	(58,700)	(59,900)	(61,100)
<b>892343 - Blue Hill Pumping Station</b>	38,800	-	82,600	132,500	131,000	129,500	127,900	126,300
4.2 Supplies & Other	176,500	74,000	119,600	208,000	208,000	208,000	208,000	208,000
Repairs & Maintenance-Equipment	176,500	74,000	119,600	208,000	208,000	208,000	208,000	208,000
<b>5.2 Shared Services</b>	(137,700)	(74,000)	(37,000)	(75,500)	(77,000)	(78,500)	(80,100)	(81,700)
Shared Services Reimbursement	(137,700)	(74,000)	(37,000)	(75,500)	(77,000)	(78,500)	(80,100)	(81,700)
<b>892345 - Conner Pumping Station</b>	805,500	899,400	337,100	870,000	870,000	870,000	870,000	870,000
3.1 Electric	555,000	714,000	219,200	600,000	600,000	600,000	600,000	600,000
3.2 Gas	3,400	2,000	400	2,000	2,000	2,000	2,000	2,000
3.3 Sewage Service	8,700	10,000	4,400	10,000	10,000	10,000	10,000	10,000
3.4 Water Service	38,000	20,400	19,300	36,000	36,000	36,000	36,000	36,000
4.2 Supplies & Other	185,500	153,000	92,600	207,000	207,000	207,000	207,000	207,000
Repairs & Maintenance-Equipment	185,500	153,000	92,600	207,000	207,000	207,000	207,000	207,000
<b>4.3 Contractual Services</b>	14,900	-	1,200	15,000	15,000	15,000	15,000	15,000
Contractual Professional Services	14,900	-	1,200	15,000	15,000	15,000	15,000	15,000
<b>892346 - Fairview Pumping Station</b>	\$ 486,100	\$ 680,200	\$ 255,700	\$ 535,000	\$ 535,000	\$ 535,000	\$ 535,000	\$ 535,000
3.1 Electric	440,400	510,000	240,000	450,000	450,000	450,000	450,000	450,000
3.2 Gas	14,200	10,000	3,500	15,000	15,000	15,000	15,000	15,000
3.4 Water Service	20,400	10,200	11,100	15,000	15,000	15,000	15,000	15,000
4.2 Supplies & Other	11,100	150,000	1,100	55,000	55,000	55,000	55,000	55,000
Repairs & Maintenance-Equipment	11,100	150,000	1,100	55,000	55,000	55,000	55,000	55,000
<b>892347 - Fischer Pumping Station</b>	(62,300)	-	(3,200)	(5,100)	(5,300)	(5,400)	(5,500)	(5,800)
4.2 Supplies & Other	7,000	12,000	2,800	7,100	7,200	7,300	7,500	7,500
Repairs & Maintenance-Equipment	7,000	12,000	2,800	7,100	7,200	7,300	7,500	7,500
<b>5.2 Shared Services</b>	(69,300)	(12,000)	(6,000)	(12,200)	(12,500)	(12,700)	(13,000)	(13,300)
Shared Services Reimbursement	(69,300)	(12,000)	(6,000)	(12,200)	(12,500)	(12,700)	(13,000)	(13,300)
<b>892348 - Fox Creek Pumping Station</b>	900	18,500	300	2,000	2,000	2,000	2,000	2,000
3.1 Electric	900	2,000	300	1,500	1,500	1,500	1,500	1,500
3.3 Sewage Service	-	1,200	-	500	500	500	500	500
3.4 Water Service	-	15,300	-	-	-	-	-	-
<b>892349 - Freud Pumping Station</b>	328,200	281,600	229,200	357,500	357,500	357,500	357,500	357,500
3.1 Electric	180,500	200,000	171,200	190,000	190,000	190,000	190,000	190,000
3.2 Gas	10,600	16,300	5,400	12,000	12,000	12,000	12,000	12,000
3.4 Water Service	1,400	15,300	700	5,000	5,000	5,000	5,000	5,000
4.2 Supplies & Other	127,400	50,000	51,900	143,000	143,000	143,000	143,000	143,000
Repairs & Maintenance-Equipment	127,400	50,000	51,900	143,000	143,000	143,000	143,000	143,000
<b>4.3 Contractual Services</b>	8,300	-	-	7,500	7,500	7,500	7,500	7,500
Contractual Professional Services	8,300	-	-	7,500	7,500	7,500	7,500	7,500
<b>892350 - Northeast Pumping Station</b>	967,500	750,000	497,700	748,000	746,000	743,900	741,800	741,800
3.1 Electric	894,700	750,000	360,200	748,000	746,000	743,900	741,800	741,800
4.2 Supplies & Other	72,800	-	137,500	-	-	-	-	-
Repairs & Maintenance-Equipment	72,800	-	137,500	-	-	-	-	-
<b>892351 - Oakwood Pumping Station</b>	287,200	196,900	42,200	283,000	283,000	283,000	283,000	283,000
3.1 Electric	129,400	115,300	33,700	120,000	120,000	120,000	120,000	120,000
3.4 Water Service	-	5,100	-	-	-	-	-	-
4.2 Supplies & Other	118,000	76,500	8,500	123,000	123,000	123,000	123,000	123,000
Repairs & Maintenance-Equipment	118,000	76,500	8,500	123,000	123,000	123,000	123,000	123,000
<b>4.3 Contractual Services</b>	39,800	-	-	40,000	40,000	40,000	40,000	40,000
Contractual Professional Services	39,800	-	-	40,000	40,000	40,000	40,000	40,000
<b>892352 - Woodmere Pumping Station</b>	(41,000)	-	8,200	67,300	66,500	65,700	65,000	64,100
4.2 Supplies & Other	97,600	36,000	26,200	104,000	104,000	104,000	104,000	104,000
Repairs & Maintenance-Equipment	97,600	36,000	26,200	104,000	104,000	104,000	104,000	104,000
<b>5.2 Shared Services</b>	(138,600)	(36,000)	(18,000)	(36,700)	(37,500)	(38,300)	(39,000)	(39,900)
Shared Services Reimbursement	(138,600)	(36,000)	(18,000)	(36,700)	(37,500)	(38,300)	(39,000)	(39,900)
<b>Grand Total</b>	<b>\$ 2,728,700</b>	<b>\$ 2,826,600</b>	<b>\$ 1,434,900</b>	<b>\$ 2,984,200</b>	<b>\$ 2,979,000</b>	<b>\$ 2,973,700</b>	<b>\$ 2,968,400</b>	<b>\$ 2,964,400</b>



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## Section 3C

# Centralized Services

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## Highlights

**The Planning Services Area leads several strategic initiatives that impact both the Water and Wastewater Systems.**

### Water System Programs:

❖ **Transmission System Pipe Integrity Program**

Assess the risk to the water delivery infrastructure through the physical review of the system as well as assessing reliability to ensure stability of service delivery to member partners.

❖ **Water Performance Monitoring**

Ensures quality and efficiency by monitoring community water systems with performance dashboards that provide real time system data.

❖ **Water Master Plan Update**

An update to the regional plan ensuring GLWA continues to meet the needs of its members and strategic investment in assets.

❖ **Units of Service for Non-Master Meter Members of Great Lakes Water Authority and System Water Audit**

An analytical review of data to quantify flow volumes for members who do not have master meters.

The table below shows how the planning services area strategic initiatives for the water system programs relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Planning Services Strategic Initiatives Water System Programs	Transmission System Pipe Integrity Program			x	x	x	x	x	x	x		x
	Water Performance Modeling			x		x		x	x	x		x
	Water Master Plan Update		x	x	x	x	x	x	x	x		x
	Units of Service for Non-Metered Customers		x			x		x		x		x

**Wastewater System Programs:**❖ **Wastewater Master Plan**

Maximizes the use of existing GLWA and member partner facilities through the review of collection and treatment facilities in order to produce affordable operating solutions.

❖ **Good Sewer Metering Practice Analysis & Support**

This ongoing program in the Wastewater Analytics Task Force (WATF) consists of four core elements: metering, sewer shares analysis and review, collection system initiative, and Water Resource Recovery Facility initiatives.

❖ **Meter Dye Testing**

This program ensures the accuracy of the sewer meters through review, repair and, calibration.

❖ **Professional and Technical Sewer Support Services**

This program is for the calibration, corrective maintenance and emergency repair of sewer meters in the collection system. This program also covers the installation of control cabinets and programmable controllers at various locations throughout the collection system.

❖ **CSO Long Term Control Plan**

This project is an EPA mandated analysis of our CSO master plan to assure the needs of the user community as well as environmental regulations.

The table below shows how the planning services area strategic initiatives for the wastewater system programs relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Planning Services Strategic Initiatives Wastewater System Programs	Wastewater Master Plan		x	x	x	x	x	x		x		x
	Good Sewer Metering Practice, Analysis & Support			x	x	x		x		x		x
	Meter Dye Testing		x		x	x		x		x		x
	Professional & Technical Sewer Support Services		x		x	x		x		x		x
	CSO Long Term Control Plan			x	x	x	x	x		x		x

### Both Systems (GLWA Wide) Initiatives

#### ❖ Strategic Asset Management Plan (SAMP)

To identify the timing related to key initiatives, identify how asset management related information is used to drive prudent Capital Improvement Plan expenditures and provide a long-term, 10-year, roadmap to execute various asset management initiatives.

#### ❖ Capital Improvement Plan

In May 2019 GLWA's Board of Directors approved a partnership with consultants, AECOM to provide Capital Improvement Planning (CIP) services. This partnership will provide GLWA with tools and resources to manage a best in class CIP program at the end of this four-year contract. The CIP is broken into the following 10 tasks:

- ✓ Tasks 1 and 2 – will focus on business and process improvements
- ✓ Task 3 – focuses on human resources necessary to execute the CIP
- ✓ Tasks 4 and 5 – focuses in identifying and implementing the staffing and technology solutions that will support the new business process

- ✓ Tasks 6, 7 and 8 – provide staffing augmentation to execute the CIP and supplemental resources to meet the needs of the organization while internal processes are being revamped
- ✓ Tasks 9 and 10 – provide additional resources as required

The bulk of the agreement will be funded as Capital as it targets specific, long term projects, however there is a significant O&M component involving business improvement, process development and other O&M related support.

❖ **Computerized Maintenance Management System (CMMS) Support**

Provides consulting services for support, training and policy management of GLWA's Computerized Maintenance Management System.

The table below shows how the planning services area strategic initiatives for both system programs relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Planning Services Strategic Initiatives Both Systems	Strategic Asset Master Plan		x	x	x	x	x	x	x	x		x
	Capital Improvement Plan		x	x	x	x	x	x	x	x		x
	Computerized Maintenance Management System Support				x	x						



## Planning Services Contracts

In the tables below, budget values beyond contract end date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process. The charts below delineate the key contracts for these services.

### Water System

Water system programs provide infrastructure analysis, real time data for quality and efficiency of product delivery and flow analysis for non-metered systems assuring outstanding product quality, system reliability and billing accuracy for our member partners.

#### Water System Programs

Water System	Transmission System Pipe Integrity Program (TSIP)	Water Performance Monitoring	Water Master Plan Update	Units of Service for Non-Master Meter Customers	Total
<b>Prime Consultant</b>	<b>TBD</b>	<b>Aquasight</b>	<b>TBD</b>	<b>Black &amp; Veatch</b>	
Contract #	TBD	1900949	TBD	GLWA-CS-039	
Contract Amount	TBD	\$ 850,000	TBD	\$ 1,824,800	\$ 2,674,800
Contract End Date	TBD	04/25/22	TBD	10/31/21	
<b>Cost Center Name</b>	<b>Asset Management</b>	<b>Systems Planning</b>	<b>Systems Planning</b>	<b>Systems Analytics</b>	
Pre-FY 2018 Spend	-	-	-	\$ 173,600	\$ 173,600
FY 2018 Actual	-	-	-	632,100	632,100
FY 2019 Actual	-	-	-	495,000	495,000
FY 2020 Amended Budget	-	-	-	-	-
FY 2021 Requested	1,191,800	350,000	500,000	300,000	2,341,800
FY 2022 Requested	3,528,400	350,000	500,000	-	4,378,400
FY 2023 Requested	3,528,400	350,000	-	-	3,878,400
FY 2024 Requested	2,970,600	350,000	-	-	3,320,600
FY 2025 Requested	2,970,600	350,000	-	-	3,320,600
<b>Total</b>	<b>\$ 14,189,800</b>	<b>\$ 1,750,000</b>	<b>\$ 1,000,000</b>	<b>\$ 1,600,700</b>	<b>\$ 18,540,500</b>

## Wastewater System Programs

Wastewater system programs focus heavily on the preservation and improvement of system integrity and the efficiency of sewage flow. These programs benefit system operations today and many years into the future.

### *Wastewater System Programs*

Wastewater System	Wastewater Master Plan & Update	Good Sewer Metering Practice Analysis & Support	Meter Dye Testing	Professional and Technical Sewer Support Services	CSO Long Term Master Plan	Total
Prime Consultant	CDM Smith	CDM Smith	Applied Science	PCI LLC	TBD	
Contract #	GLWA-CS-036	GLWA-CS-239	GLWA-CS-236	GLWA-CON-179	TBD	
Contract Amount	\$ 9,022,700	\$ 2,420,900	\$ 1,435,100	\$ 6,465,800	TBD	\$ 19,344,500
Contract End Date	10/31/20	06/15/21	Renewal in Process	07/02/22	TBD	
Cost Center Name	Systems Planning	Systems Analytics	Systems Analytics	Systems Analytics	Systems Planning	
Pre-FY 2018 Spend	\$ 441,400	\$ 566,200	\$ -	\$ 151,100	\$ -	1,158,700
FY 2018 Actual	3,011,200	280,300	49,300	1,185,200	-	4,526,000
FY 2019 Actual	3,638,100	863,000	395,600	659,000	-	5,555,700
FY 2020 Amended Budget	1,760,000	816,000	675,000	655,400	-	3,906,400
<b>FY 2021 Requested</b>	<b>125,000</b>	<b>816,000</b>	<b>675,000</b>	<b>490,000</b>	<b>500,000</b>	<b>2,606,000</b>
FY 2022 Requested	-	816,000	675,000	500,000	500,000	2,491,000
FY 2023 Requested	-	816,000	675,000	500,000	500,000	2,491,000
FY 2024 Requested	500,000	816,000	675,000	500,000	-	2,491,000
FY 2025 Requested	500,000	816,000	675,000	500,000	-	2,491,000
<b>Total</b>	<b>\$ 9,975,700</b>	<b>\$ 6,605,500</b>	<b>\$ 4,494,900</b>	<b>\$ 5,140,700</b>	<b>\$ 1,500,000</b>	<b>\$ 27,716,800</b>

## Combined Water / Wastewater Programs

System wide programs supporting both Water and Wastewater include initiatives that benefit the management of GLWA's strategic assets, computer systems and will further support the development of a Capital Improvement Planning Office that will oversee the organization's long-term strategic goals.

### *Combined System (GLWA Wide) Programs*

Both Systems	Strategic Asset	Capital	CMMS	Total
Prime Consultant	Jacobs	AECOM	Experis Financial	
Contract #	GLWA-CS-198	GLWA-CS-272	PO 7279	
Contract Amount	\$ 4,113,300	\$ 15,519,000	Annual PO	\$ 19,632,300
Contract End Date	06/15/21	05/27/23	06/30/20	
Cost Center Name	Asset Management	Capital Improvement Planning	Asset Management	
Pre-FY 2018 Spend	-	-	\$ 289,300	\$ 289,300
FY 2018 Actual	-	-	263,500	263,500
FY 2019 Actual	1,638,600	558,500	288,900	2,486,000
FY 2020 Amended Budget	1,208,000	4,406,200	320,000	5,934,200
<b>FY 2021 Requested</b>	<b>936,000</b>	<b>2,938,700</b>	<b>320,000</b>	<b>4,194,700</b>
FY 2022 Requested	1,000,000	2,461,300	150,000	3,611,300
FY 2023 Requested	1,000,000	1,616,100	150,000	2,766,100
FY 2024 Requested	1,000,000	1,158,300	150,000	2,308,300
FY 2025 Requested	1,000,000	-	150,000	1,150,000
<b>Total</b>	<b>\$ 7,782,600</b>	<b>\$ 13,139,100</b>	<b>\$ 2,081,700</b>	<b>\$ 23,003,400</b>

## Organization

The GLWA System Planning Area consists of five teams.

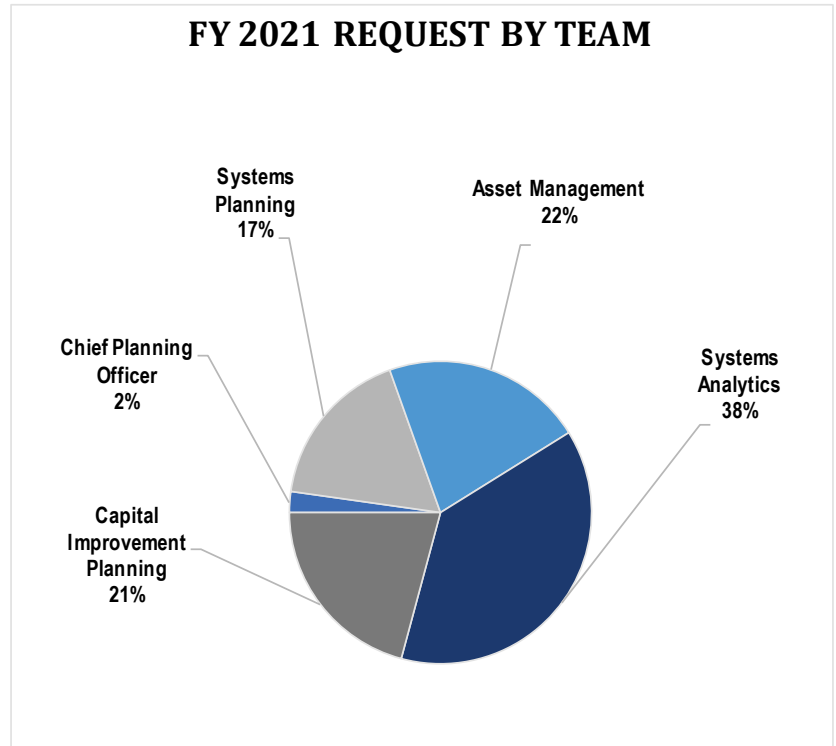
- ❖ **Office of the Chief Planning Officer**  
Administration and oversight of GLWA's planning efforts with current and prospective Member-Partners

- ❖ **Asset Management**  
Responsible for leading the enterprise-wide asset management strategy at GLWA

- ❖ **Systems Planning**  
Responsible for internal and external strategic planning, outreach and coordination with member partners

- ❖ **Capital Improvement Planning**  
Manages the planning and execution of the enterprise-wide capital improvement program including the development of a five-year Capital Improvement Plan which is updated annually

- ❖ **Systems Analytics**  
Responsible for maintaining meter operations and analyzing flow data for both water and wastewater, and for administrating the Wholesale Automatic Meter Reading (WAMR) system



## Expense Categories

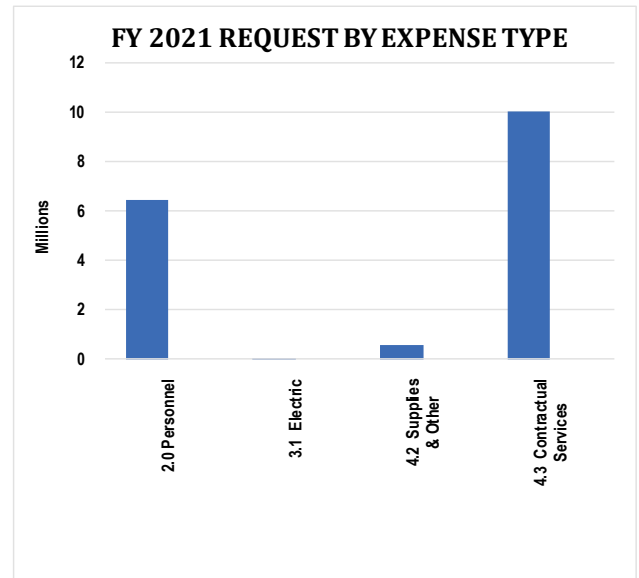
There are two major categories of Planning Services Area expenses in the Operations and Maintenance Budget as listed below.

- ❖ Contractual services
- ❖ Personnel Costs

Contractual Services is the largest expense category with strategic initiatives spanning the entire organization. Significant efforts include the development of management plans in Systems Planning, Asset Management and Capital Improvement Planning.

To optimize member engagement, the Planning Services Team employs the services of The Bridgeport Consulting Group who specialize in efficient group facilitation assuring that GLWA Member Partners are fully engaged in making decisions that affect the region today and in the future.

The Planning Services Area has been in existence for four years. Given the breadth of assignments, recruiting and retaining top talent is a high priority. Accordingly, personnel costs are the second highest expense category. It is possible that a portion of the daily activities of the Planning Services Area will have a direct impact on capital delivery. To the extent that occurs, an allocation of this Area's effort will be assigned directly to construction projects.



## Biennial Budget Request

The biennial budget reflects a decrease in FY 2021 as a result of changes in activity levels of several large consulting projects within the Planning Services Area.

- ❖ Capital Improvement Planning spending with vendor, AECOM will decrease in FY 2021 as initial O&M based assessment and improvement of our existing CIP operations shifts to more Capital focused work.
- ❖ Systems Planning will complete phase one of the Wastewater Master Plan with vendor, CDM Smith in FY 2020 resulting in reduced FY 2021 costs.
- ❖ Asset Management will complete phase one of the Asset Master Plan with vendor, Jacobs Engineering resulting in reduced spending while preparations are made to begin phase two.
- ❖ Systems Analytics will consolidate its East and West Side Sewer Modeling and Monitoring initiatives with the overall Wastewater Master Plan resulting in the reduction of significant organizational overlap.
- ❖ The spending pace of the Water Transmission System Pipe Integrity Program (TSIP) was reduced in FY 2021 as a result of lessons learned during the project's pilot phase.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 4,538,200	\$ 6,272,400	\$ 2,398,500	\$ 6,450,600	\$ 178,200	2.8%	\$ 7,220,900
3.1 Electric	88,600	80,500	32,600	81,700	1,200	1.5%	82,000
4.2 Supplies & Other	475,800	726,400	257,700	564,900	(161,500)	-22.2%	565,000
4.3 Contractual Services	10,415,300	12,418,400	6,227,000	10,051,200	(2,367,200)	-19.1%	9,833,400
5.1 Capital Program Allocation	-	(276,200)		-	276,200	0.0%	-
5.2 Shared Services	(378,400)	(89,900)	(60,000)	-	89,900	-100.0%	-
6.0 Capital Outlay	-			-	-	0.0%	-
<b>Grand Total</b>	<b>\$ 15,139,500</b>	<b>\$ 19,131,600</b>	<b>\$ 8,855,800</b>	<b>\$ 17,148,400</b>	<b>\$ (1,983,200)</b>	<b>-10.4%</b>	<b>\$ 17,701,300</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY2021 Percent Variance	FY 2022 Department Requested
Chief Planning Officer	\$ 368,600	\$ 408,900	\$ 153,800	\$ 382,000	\$ (26,900)	-6.6%	\$ 383,600
Systems Planning	4,842,900	3,433,100	1,855,400	2,960,700	(472,400)	-13.8%	3,046,900
Asset Management	3,115,100	3,190,100	1,254,800	3,693,900	503,800	15.8%	4,370,200
Systems Analytics	6,155,800	7,455,600	2,538,400	6,552,200	(903,400)	-12.1%	6,612,100
Capital Improvement Planning	657,100	4,643,900	3,053,400	3,559,600	(1,084,300)	-23.3%	3,288,500
<b>Grand Total</b>	<b>\$ 15,139,500</b>	<b>\$ 19,131,600</b>	<b>\$ 8,855,800</b>	<b>\$ 17,148,400</b>	<b>\$ (1,983,200)</b>	<b>-10.4%</b>	<b>\$ 17,701,300</b>

### Personnel Budget

The staffing plan provides for a steady state of 72 positions as of FY 2021. These positions are forecasted to be filled by FY 2023 as Planning Services levels out its staffing requirements.

*Staffing Plan – Number of Positions* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

#### Staffing Plan

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Planning Services</b>	<b>62.00</b>	<b>63.00</b>	<b>72.00</b>	<b>72.00</b>	<b>72.00</b>	<b>72.00</b>	<b>72.00</b>
Chief Planning Officer	3.00	2.00	2.00	2.00	2.00	2.00	2.00
Systems Planning	4.00	5.00	7.00	7.00	7.00	7.00	7.00
Asset Management	7.00	9.00	11.00	11.00	11.00	11.00	11.00
Systems Analytics	40.00	39.00	44.00	44.00	44.00	44.00	44.00
Capital Improvement Planning	8.00	8.00	8.00	8.00	8.00	8.00	8.00

*Full Time Equivalent*s - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled or budgeted for in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and correlating FTEs project an immediate increase followed by a leveling of staff over the next five years.

#### Full Time Equivalent

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Planning Services</b>	<b>60.25</b>	<b>58.25</b>	<b>63.25</b>	<b>70.00</b>	<b>72.00</b>	<b>72.00</b>	<b>72.00</b>
Chief Planning Officer	3.00	2.00	2.00	2.00	2.00	2.00	2.00
Systems Planning	4.00	4.00	6.00	7.00	7.00	7.00	7.00
Asset Management	7.00	9.00	10.50	11.00	11.00	11.00	11.00
Systems Analytics	40.00	39.00	39.25	42.50	44.00	44.00	44.00
Capital Improvement Planning	6.25	4.25	5.50	7.50	8.00	8.00	8.00



*Personnel Budget* – The table below presents the Planning Services personnel budget which consists of the following expense categories: Salaries & Wages, Salaries & Wages – Workforce Development, Overtime, Employee Benefits and Contractual Transition Services. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

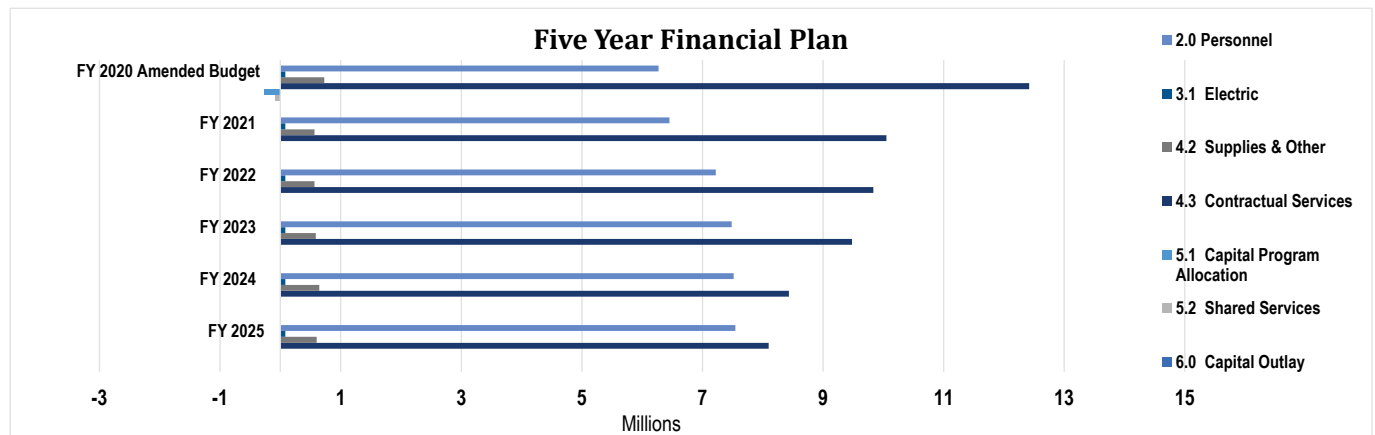
*Personnel Budget*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Planning Services</b>	<b>\$ 4,538,200</b>	<b>\$ 6,272,400</b>	<b>\$ 6,450,600</b>	<b>\$ 7,220,900</b>	<b>\$ 7,486,100</b>	<b>\$ 7,516,500</b>	<b>\$ 7,546,700</b>
Chief Planning Officer	313,900	292,000	368,100	369,600	371,100	372,700	374,200
Systems Planning	335,500	588,700	631,000	742,200	745,400	748,600	751,800
Asset Management	687,300	1,111,800	1,107,000	1,168,600	1,173,500	1,178,400	1,183,300
Systems Analytics	3,085,700	3,780,500	3,730,600	4,121,300	4,316,200	4,333,100	4,350,000
Capital Improvement Planning	115,800	499,400	613,900	819,200	879,900	883,700	887,400

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 6,272,400	\$ 2,398,500	\$ 6,450,600	\$ 178,200	2.8%	\$ 7,220,900	\$ 7,486,100	\$ 7,516,500	\$ 7,546,700
3.1 Electric	80,500	32,600	81,700	1,200	1.5%	82,000	82,200	82,400	83,000
4.2 Supplies & Other	726,400	257,700	564,900	(161,500)	-22.2%	565,000	587,700	646,500	603,000
4.3 Contractual Services	12,418,400	6,227,000	10,051,200	(2,367,200)	-19.1%	9,833,400	9,480,300	8,434,900	8,098,900
5.1 Capital Program Allocation	(276,200)		-	276,200	0.0%	-	-	-	-
5.2 Shared Services	(89,900)	(60,000)	-	89,900	-100.0%	-	-	-	-
<b>Grand Total</b>	<b>\$ 19,131,600</b>	<b>\$ 8,855,800</b>	<b>\$ 17,148,400</b>	<b>\$ (1,983,200)</b>	<b>-10.4%</b>	<b>\$ 17,701,300</b>	<b>\$ 17,636,300</b>	<b>\$ 16,680,300</b>	<b>\$ 16,331,600</b>



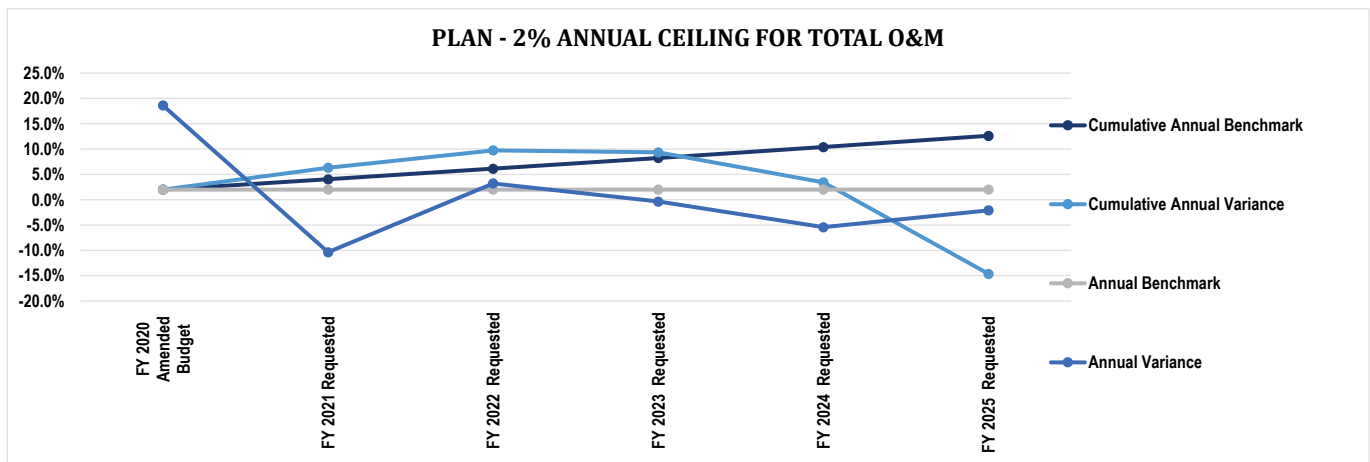
### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Chief Planning Officer	\$ 408,900	\$ 153,800	\$ 382,000	\$ (26,900)	-6.6%	\$ 383,600	\$ 385,200	\$ 386,900	\$ 388,500
Systems Planning	3,433,100	1,855,400	2,960,700	(472,400)	-13.8%	3,046,900	2,552,600	2,530,800	2,534,000
Asset Management	3,190,100	1,254,800	3,693,900	503,800	15.8%	4,370,200	5,370,200	4,815,000	5,644,600
Systems Analytics	7,455,600	2,538,400	6,552,200	(903,400)	-12.1%	6,612,100	6,824,300	6,897,600	6,869,100
Capital Improvement Planning	4,643,900	3,053,400	3,559,600	(1,084,300)	-23.3%	3,288,500	2,504,000	2,050,000	895,400
<b>Grand Total</b>	<b>\$ 19,131,600</b>	<b>\$ 8,855,800</b>	<b>\$ 17,148,400</b>	<b>\$ (1,983,200)</b>	<b>-10.4%</b>	<b>\$ 17,701,300</b>	<b>\$ 17,636,300</b>	<b>\$ 16,680,300</b>	<b>\$ 16,331,600</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Planning Services Area financial plan reflects a Five-Year Overall decrease of (14.6%) while the entity-wide goal is a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment). This decrease is primarily explained by the completion and or consolidation of significant initiatives that utilized outside consulting services (listed below and earlier in the presentation).

- ✓ Capital Improvement Planning spending with vendor, AECOM will decrease in FY 2021 as initial O&M based assessment and improvement of our existing CIP operations shifts to more capital focused work.
- ✓ Systems Planning will complete phase one of the Wastewater Master Plan with vendor CDM Smith in FY 2020, resulting in reduced FY 2021 costs.
- ✓ Asset Management will complete phase one of the Asset Master Plan with vendor Jacobs Engineering, resulting in reduced spending while preparations are made to begin phase two.
- ✓ Systems Analytics will consolidate its East and West Side Sewer Modeling and Monitoring initiatives with the overall Wastewater Master Plan resulting in the reduction of significant organizational overlap.
- ✓ The spending pace of the Water Transmission System Pipe Integrity Program (TSIP) was reduced in FY 2021 as a result of lessons learned during the project's pilot phase.



## Capital Outlay

Planning Services capital outlay is funded by the Improvement and Extension (I&E) Budget. Significant components of the 2021 I&E budget are as follows:

- ✓ Computers & IT / Machinery & Equipment – sewage meter design, installation and replacement program
- ✓ Furniture & Fixtures /Leasehold Improvements – improvements to 11<sup>th</sup> floor Water Board Building and Central Services Facility
- ✓ Tools, Shop & Warehouse – purchase equipment necessary to repair meters

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Improvement &amp; Extension</b>	<b>\$ 2,361,600</b>	<b>\$ 2,811,600</b>	<b>\$ 1,671,000</b>	<b>\$ 1,616,000</b>	<b>\$ 1,657,700</b>	<b>\$ 560,000</b>
Computers & IT	1,700,000	2,200,000	1,500,000	1,500,000	1,500,000	500,000
Flow Metering & Meters	100,600	95,000	137,000	106,000	100,000	55,000
Furniture & Fixtures	426,000	450,000	20,000	10,000	5,000	5,000
Leasehold Improvements	110,000	28,000	-	-	-	-
Passenger Vehicles	25,000	-	14,000	-	13,000	-
Tools, Shop & Warehouse	-	38,600	-	-	39,700	-
<b>Grand Total</b>	<b>2,361,600</b>	<b>2,811,600</b>	<b>1,671,000</b>	<b>1,616,000</b>	<b>1,657,700</b>	<b>560,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 2,361,600	\$ 2,811,600	\$ 1,671,000	\$ 1,616,000	\$ 1,657,700	\$ 560,000
<b>Grand Total</b>	<b>\$ 2,361,600</b>	<b>\$ 2,811,600</b>	<b>\$ 1,671,000</b>	<b>\$ 1,616,000</b>	<b>\$ 1,657,700</b>	<b>\$ 560,000</b>

### *Five-Year Capital Outlay Plan by Team*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Systems Planning</b>	<b>\$ 2,361,600</b>	<b>\$ 2,811,600</b>	<b>\$ 1,671,000</b>	<b>\$ 1,616,000</b>	<b>\$ 1,657,700</b>	<b>\$ 560,000</b>
Chief Planning Officer	-	28,000	-	-	-	-
Systems Planning	336,000	450,000	20,000	10,000	5,000	5,000
Asset Management	110,000	-	14,000	-	-	-
Systems Analytics	1,800,600	2,333,600	1,637,000	1,606,000	1,639,700	555,000
Capital Improvement Planning	115,000	-	-	-	13,000	-
<b>Grand Total</b>	<b>\$ 2,361,600</b>	<b>\$ 2,811,600</b>	<b>\$ 1,671,000</b>	<b>\$ 1,616,000</b>	<b>\$ 1,657,700</b>	<b>\$ 560,000</b>

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget begins below. The expenses are listed in order by cost center.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>886001 - Chief Planning Officer</b>	\$ 368,600	\$ 408,900	\$ 153,800	\$ 382,000	\$ 383,600	\$ 385,200	\$ 386,900	\$ 388,500
2.1 Salaries & Wages	258,100	232,600	125,300	288,500	288,500	288,500	288,500	288,500
2.3 Overtime	700	-	-	-	-	-	-	-
2.4 Employee Benefits	55,100	59,400	25,100	79,600	81,100	82,600	84,200	85,700
4.2 Supplies & Other	54,100	16,400	3,100	13,300	13,400	13,500	13,600	13,700
Capital Outlay less than \$5000	44,600	2,000	-	2,000	2,000	2,000	2,000	2,000
Memberships, Licenses & Subscriptions	400	600	600	600	600	600	600	600
Mileage and Parking	-	200	-	-	-	-	-	-
Office Supplies	3,500	2,100	300	2,200	2,300	2,400	2,500	2,600
Training and Internal Meetings	1,800	3,500	200	3,500	3,500	3,500	3,500	3,500
Travel	3,800	6,000	2,000	5,000	5,000	5,000	5,000	5,000
Tuition Refund	-	2,000	-	-	-	-	-	-
4.3 Contractual Services	600	100,500	300	600	600	600	600	600
<b>886101 - Systems Planning</b>	<b>4,842,900</b>	<b>3,433,100</b>	<b>1,855,400</b>	<b>2,960,700</b>	<b>3,046,900</b>	<b>2,552,600</b>	<b>2,530,800</b>	<b>2,534,000</b>
2.1 Salaries & Wages	268,500	452,600	120,600	488,400	572,200	572,200	572,200	572,200
2.3 Overtime	-	2,900	400	-	-	-	-	-
2.4 Employee Benefits	67,000	133,200	37,600	142,600	170,000	173,200	176,400	179,600
4.2 Supplies & Other	65,800	100,400	36,100	79,700	79,700	82,200	82,200	82,200
Capital Outlay less than \$5000	-	26,800	-	-	-	-	-	-
Memberships, Licenses & Subscriptions	-	1,100	200	500	500	500	500	500
Mileage and Parking	800	3,600	400	1,200	1,200	1,200	1,200	1,200
Office Supplies	5,300	5,300	1,700	6,000	6,000	6,000	6,000	6,000
Operating Supplies	54,300	50,000	28,900	62,500	62,500	65,000	65,000	65,000
Training and Internal Meetings	300	4,600	1,000	500	500	500	500	500
Travel	5,100	9,000	3,900	9,000	9,000	9,000	9,000	9,000
4.3 Contractual Services	4,441,600	2,744,000	1,660,700	2,250,000	2,225,000	1,725,000	1,700,000	1,700,000
<b>886201 - Asset Management</b>	<b>3,115,100</b>	<b>3,190,100</b>	<b>1,254,800</b>	<b>3,693,900</b>	<b>4,370,200</b>	<b>5,370,200</b>	<b>4,815,000</b>	<b>5,644,600</b>
2.1 Salaries & Wages	571,500	875,800	278,200	864,200	908,400	908,400	908,400	908,400
2.4 Employee Benefits	115,800	236,000	75,200	242,800	260,200	265,100	270,000	274,900
4.2 Supplies & Other	106,500	216,800	35,100	80,100	123,200	129,300	135,000	140,700
Capital Outlay less than \$5000	59,000	-	-	-	-	-	-	-
Memberships, Licenses & Subscriptions	1,100	1,200	1,000	1,200	1,200	1,300	1,300	1,300
Mileage and Parking	5,200	7,000	1,500	7,100	7,300	7,400	7,600	7,700
Office Supplies	8,700	6,000	5,300	8,700	9,000	9,300	9,600	9,900
Repairs & Maintenance	-	-	-	-	-	-	-	-
Software	12,900	180,000	15,100	40,000	80,000	85,000	90,000	95,000
Training and Internal Meetings	9,800	10,800	4,600	11,100	12,300	12,500	12,800	13,000
Travel	7,800	11,800	5,600	12,000	13,400	13,800	13,700	13,800
Tuition Refund	2,000	-	2,000	-	-	-	-	-
4.3 Contractual Services	2,321,300	1,861,500	866,300	2,506,800	3,078,400	4,067,400	3,501,600	4,320,600

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>886401 - Systems Analytics</b>	<b>6,155,800</b>	<b>7,455,600</b>	<b>2,538,400</b>	<b>6,552,200</b>	<b>6,612,100</b>	<b>6,824,300</b>	<b>6,897,600</b>	<b>6,869,100</b>
2.1 Salaries & Wages	1,549,300	2,032,400	825,700	2,027,900	2,320,100	2,458,700	2,458,700	2,458,700
2.2 Workforce								
Development	171,500	231,000	96,500	246,400	246,400	246,400	246,400	246,400
2.3 Overtime	113,800	83,900	57,700	112,400	112,400	112,400	112,400	112,400
2.4 Employee Benefits	651,400	757,000	357,400	755,800	854,300	910,600	927,500	944,400
2.5 Transition Services	599,700	676,200	232,800	588,100	588,100	588,100	588,100	588,100
3.1 Electric	88,600	80,500	32,600	81,700	82,000	82,200	82,400	83,000
4.2 Supplies & Other	248,000	378,300	181,200	384,800	340,700	354,700	407,700	358,400
Capital Outlay less than \$5000	116,000	230,400	121,300	234,300	189,800	203,400	255,200	205,400
Memberships, Licenses & Subscriptions	2,700	-	-	2,500	2,500	2,500	2,500	2,500
Mileage and Parking	4,500	1,600	1,400	2,700	2,700	2,700	2,700	2,700
Office Supplies	7,000	15,300	6,900	12,000	12,000	12,000	12,000	12,000
Operating Supplies	18,800	14,600	10,600	14,600	14,600	14,600	15,500	16,000
Repairs & Maintenance								
Equipment	61,300	60,600	16,100	68,000	68,000	68,000	68,000	68,000
Repairs & Maintenance								
Hardware	5,300	8,300	100	8,600	9,000	9,400	9,700	9,700
Repairs & Maintenance								
Miscellaneous	10,000	24,400	2,100	17,000	17,000	17,000	17,000	17,000
Training and Internal Meetings	2,900	5,100	18,200	5,100	5,100	5,100	5,100	5,100
Travel	6,200	3,000	2,100	5,000	5,000	5,000	5,000	5,000
Tuition Refund	1,400	2,000	-	2,000	2,000	2,000	2,000	2,000
Uniforms, Laundry, Cleaning	11,900	13,000	2,400	13,000	13,000	13,000	13,000	13,000
4.3 Contractual Services	3,111,900	3,306,200	814,500	2,355,100	2,068,100	2,071,200	2,074,400	2,077,700
5.2 Shared Services	(378,400)	(89,900)	(60,000)	-	-	-	-	-
<b>886601 - Capital Improvement Planning</b>	<b>657,100</b>	<b>4,643,900</b>	<b>3,053,400</b>	<b>3,559,600</b>	<b>3,288,500</b>	<b>2,504,000</b>	<b>2,050,000</b>	<b>895,400</b>
2.1 Salaries & Wages	101,800	387,700	136,700	477,600	633,200	677,400	677,400	677,400
2.4 Employee Benefits	14,000	111,700	29,300	136,300	186,000	202,500	206,300	210,000
4.2 Supplies & Other	1,400	14,500	2,200	7,000	8,000	8,000	8,000	8,000
Memberships, Licenses & Subscriptions	-	1,200	400	700	700	700	700	700
Mileage and Parking	-	500	-	800	800	800	800	800
Office Supplies	1,000	1,500	1,400	1,500	1,500	1,500	1,500	1,500
Training and Internal Meetings	200	5,400	100	1,000	1,000	1,000	1,000	1,000
Travel	200	5,900	300	3,000	4,000	4,000	4,000	4,000
4.3 Contractual Services	539,900	4,406,200	2,885,200	2,938,700	2,461,300	1,616,100	1,158,300	-
5.1 Capital Program Allocation	-	(276,200)	-	-	-	-	-	-
<b>Grand Total</b>	<b>\$ 15,139,500</b>	<b>\$ 19,131,600</b>	<b>\$ 8,855,800</b>	<b>\$ 17,148,400</b>	<b>\$ 17,701,300</b>	<b>\$ 17,636,300</b>	<b>\$ 16,680,300</b>	<b>\$ 16,331,600</b>

## Highlights

The Systems Control Area strategic initiatives include the following.

### ❖ Control Systems Enhancement

Drive the use of Ovation (distributed control system) and OSIsoft PI (application software for real-time data infrastructure solutions called process information) systems for technology enhancement and analytics

### ❖ Operational Efficiency

- Improve operational efficiency, maintain regulatory and environmental compliance, and accommodate future systems expansion.
- Implement real-time pump curves at all booster stations for pump efficiency monitoring.

The table below shows how the system control area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Systems Control Strategic Initiatives	Control System Enhancements		x		x	x	x					
	Operational Efficiency		x		x	x	x					

## Systems Control Contracts

The Systems Control budget contains several contractual services related to VFD (variable frequency drive) maintenance & service and specialized services for engineering, instrumentation & SCADA network. Budgeted amounts beyond contract date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process. In the chart below are the key contracts for these services.



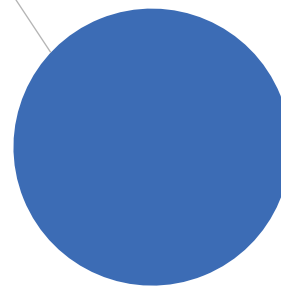
Project Description	VFD Maintenance & Service	Specialized Services (contract split w/ Field Service)	Professional Engineering Services for Instrumentation & SCADA	Total
Prime Consultant	Siemens Industry	Lakeshore Global Corp	PCI LLC	
Contract #	SCO-1091	GLWA-CON-158	CS-090A	
Contract Amount	\$250,000	\$15,139,200	\$7,982,916	
Contract End Date	07/17/20	07/17/20	8/31/20	
Pre-FY 2019 Spend	\$ 82,407	\$ 2,755,409	\$ 1,569,314	\$ 4,407,130
FY 2019 Actual	100,000	3,146,790	2,201,308	5,448,098
FY 2020 Budget	100,000	3,400,000	4,120,800	7,620,800
<b>FY 2021 Requested</b>	<b>100,000</b>	<b>2,900,000</b>	<b>2,100,000</b>	<b>5,100,000</b>
FY 2022 Requested	100,000	2,900,000	2,100,000	5,100,000
FY 2023 Requested	100,000	2,900,000	2,100,000	5,100,000
FY 2024 Requested	100,000	2,900,000	2,100,000	5,100,000
FY 2025 Requested	100,000	2,900,000	2,100,000	5,100,000
<b>Total</b>	<b>\$ 782,407</b>	<b>\$ 23,802,199</b>	<b>\$ 18,391,422</b>	<b>\$ 42,976,028</b>

### Organization

The GLWA Systems Control Area operates the water transmission system by controlling & monitoring the distribution of water throughout the Regional Water System. The treatment and distribution system is controlled by an award-winning state of the arts Supervisory Control and Data Acquisition (SCADA) system. Operators remotely control the many pumps and valves that allow the system to deliver water to all communities. Access to real-time data from throughout the system allows quicker response, reaction, detection and isolation of system leaks and rapidly changing conditions such as storm water inflow.

### FY 2021 REQUEST BY TEAM

Systems Operations Control  
100%



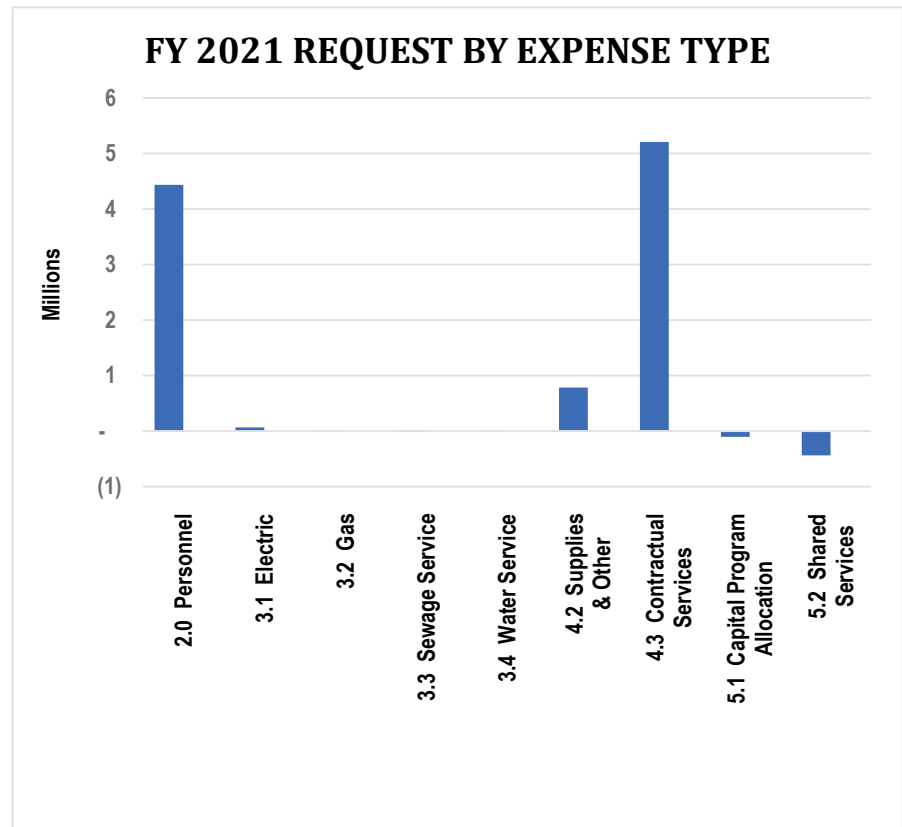
## Expense Categories

There are two major categories of Systems Control expenses in the Operations and Maintenance Budget as listed below.

- ❖ Contractual Services
- ❖ Personnel Costs

Contractual Services is the highest expense category for Systems Control. Contractual services are heavily utilized in the Systems Control group to perform various maintenance, monitoring and evaluations of the distribution systems to maintain operational readiness.

Personnel costs are the second highest expense category.



## Biennial Budget Request

The biennial budget reflects an overall decrease in FY 2021 of \$81,000. Key factors that impact the FY 2021 budget include the following

- ❖ Personnel budget increase of \$610,900 in FY 2021 is a combination of actual starting salaries at the beginning of FY 2020 and new employee benefits calculation for FY 2021.
- ❖ Contractual professional services budget decrease of \$496,100 in FY 2021 is a result of the Alfred Benesch & Company contract (GLWA-CS-032) ending with no renewal for FY 2021.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 4,549,000	\$ 3,824,200	\$ 2,403,100	\$ 4,435,100	\$ 610,900	16.0%	\$ 4,454,500
3.1 Electric	70,400	51,000	27,300	65,000	14,000	27.5%	65,000
3.2 Gas	200	10,100	100	500	(9,600)	-95.0%	500
3.3 Sewage Service	8,800	16,000	500	9,000	(7,000)	-43.8%	9,000
3.4 Water Service	500	1,000	200	600	(400)	-40.0%	600
4.2 Supplies & Other	786,500	945,800	306,700	783,600	(162,200)	-17.1%	783,900
4.3 Contractual Services	4,887,800	5,703,100	1,967,100	5,207,000	(496,100)	-8.7%	5,207,000
5.1 Capital Program Allocation	(90,200)	(82,300)	(25,100)	(104,300)	(22,000)	26.7%	(104,700)
5.2 Shared Services	533,800	(429,200)	(214,600)	(437,800)	(8,600)	2.0%	(446,600)
<b>Grand Total</b>	<b>\$ 10,746,800</b>	<b>\$ 10,039,700</b>	<b>\$ 4,465,300</b>	<b>\$ 9,958,700</b>	<b>\$ (81,000)</b>	<b>-0.8%</b>	<b>\$ 9,969,200</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Systems Operations Control	\$ 10,746,800	\$ 10,039,700	\$ 4,465,300	\$ 9,958,700	\$ (81,000)	-0.8%	\$ 9,969,200
<b>Grand Total</b>	<b>\$ 10,746,800</b>	<b>\$ 10,039,700</b>	<b>\$ 4,465,300</b>	<b>\$ 9,958,700</b>	<b>\$ (81,000)</b>	<b>-0.8%</b>	<b>\$ 9,969,200</b>

## Personnel Budget

Systems Control personnel consists of 43 positions for FY 2021. Systems Control is largely comprised of technicians that operate and maintain instrumentation equipment in the water and wastewater operations, field services, pumping stations, electrical systems, computerized process controls, and equipment.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
Systems Control	43.00	43.00	43.00	43.00	43.00	43.00	43.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

### *Full-time Equivalents*

Team	FY 2019 FTEs	FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
Systems Control	43.00	43.00	43.00	43.00	43.00	43.00	43.00

*Personnel Budget* - The table below presents the Systems Control personnel budget which consists of the following expense categories: Salaries & Wages, Salaries & Wages – Workforce Development, Overtime, Employee Benefits and Contractual Transition Services. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

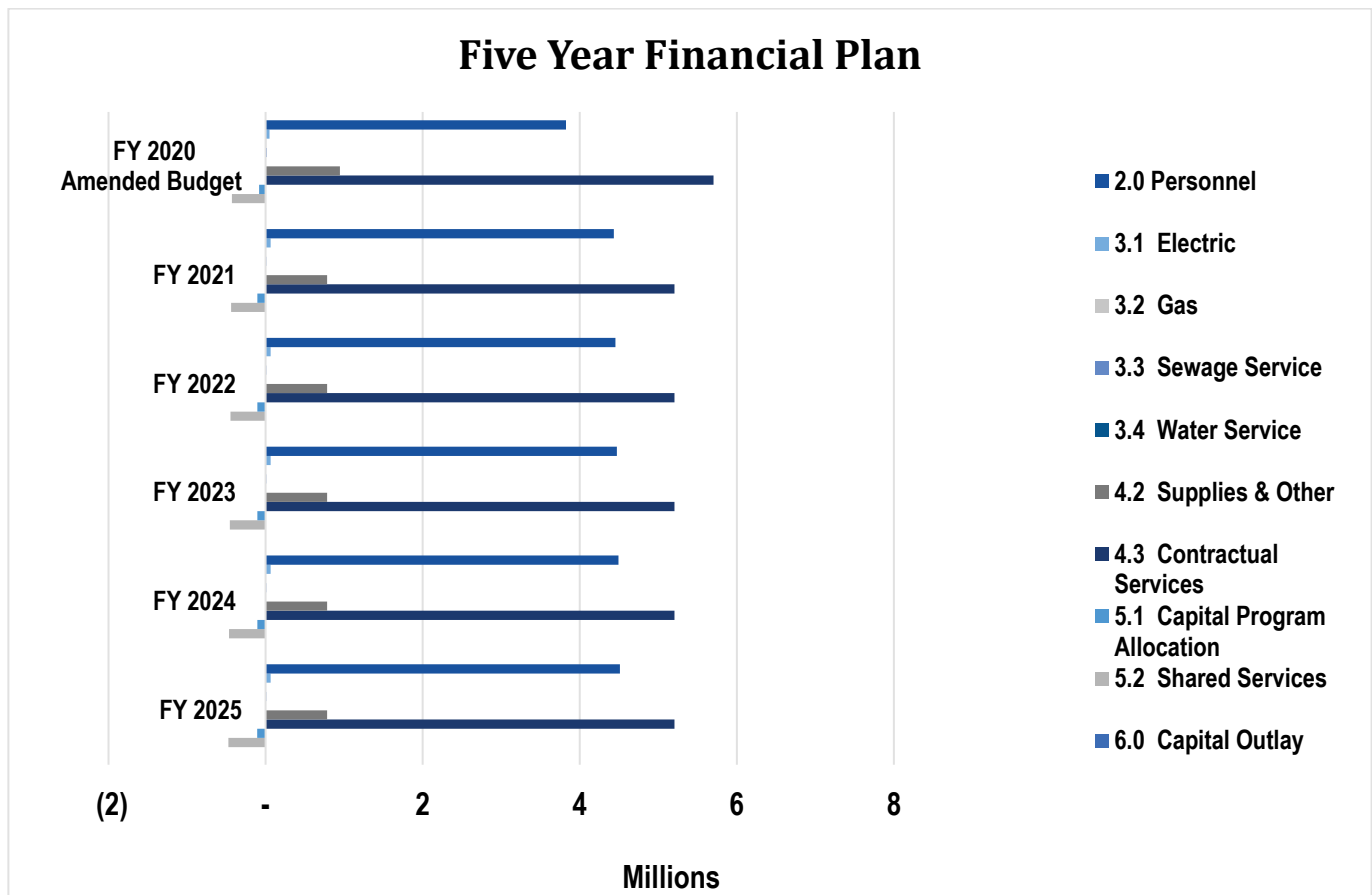
### *Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Systems Control	\$ 3,824,200	\$ 4,435,100	\$ 4,454,500	\$ 4,473,800	\$ 4,493,200	\$ 4,512,600

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 3,824,200	\$ 2,403,100	\$ 4,435,100	\$ 610,900	16.0%	\$ 4,454,500	\$ 4,473,800	\$ 4,493,200	\$ 4,512,600
3.1 Electric	51,000	27,300	65,000	14,000	27.5%	65,000	65,000	65,000	65,000
3.2 Gas	10,100	100	500	(9,600)	-95.0%	500	500	500	500
3.3 Sewage Service	16,000	500	9,000	(7,000)	-43.8%	9,000	9,000	9,000	9,000
3.4 Water Service	1,000	200	600	(400)	-40.0%	600	600	600	600
4.2 Supplies & Other	945,800	306,700	783,600	(162,200)	-17.1%	783,900	784,400	784,400	784,400
4.3 Contractual Services	5,703,100	1,967,100	5,207,000	(496,100)	-8.7%	5,207,000	5,207,000	5,207,000	5,207,000
5.1 Capital Program Allocation	(82,300)	(25,100)	(104,300)	(22,000)	26.7%	(104,700)	(105,100)	(105,500)	(105,900)
5.2 Shared Services	(429,200)	(214,600)	(437,800)	(8,600)	2.0%	(446,600)	(455,500)	(464,600)	(473,800)
<b>Grand Total</b>	<b>\$ 10,039,700</b>	<b>\$ 4,465,300</b>	<b>\$ 9,958,700</b>	<b>\$ (81,000)</b>	<b>-0.8%</b>	<b>\$ 9,969,200</b>	<b>\$ 9,979,700</b>	<b>\$ 9,989,600</b>	<b>\$ 9,999,400</b>

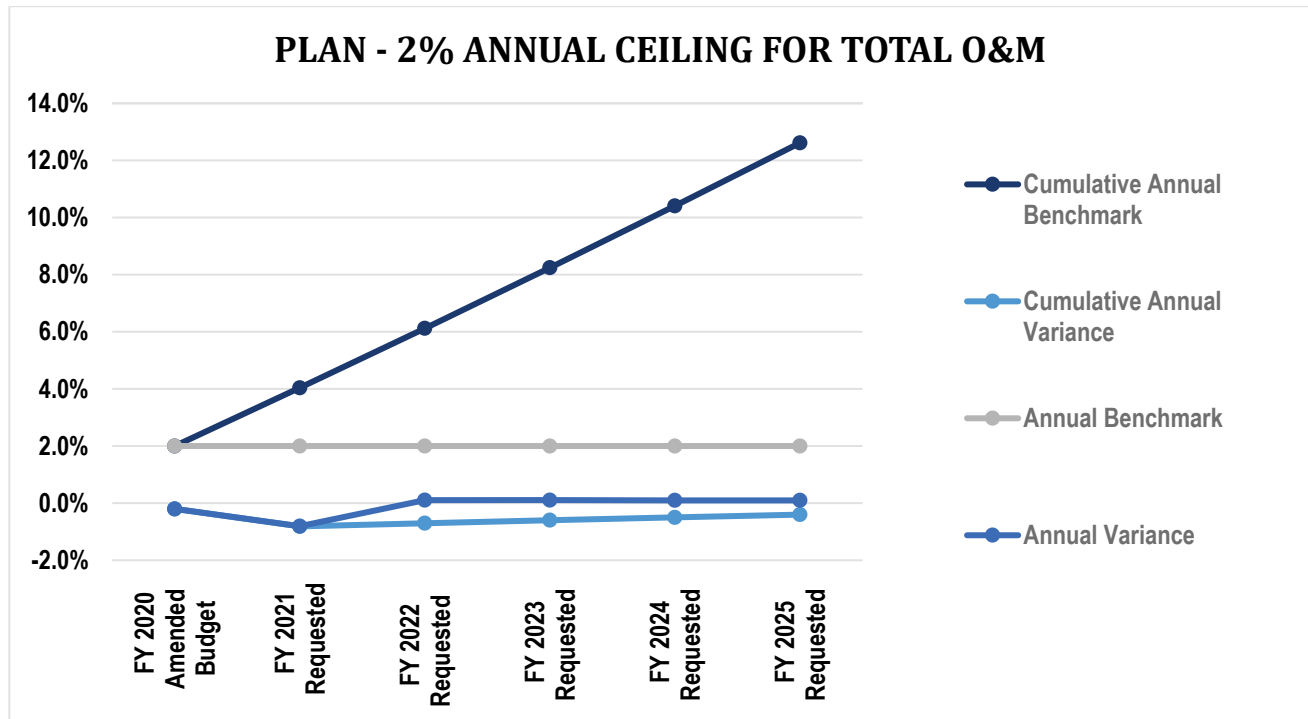


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Systems Operations Control	\$ 10,039,700	\$ 4,465,300	\$ 9,958,700	\$ (81,000)	-0.8%	\$ 9,969,200	\$ 9,979,700	\$ 9,989,600	\$ 9,999,400
<b>Grand Total</b>	<b>\$ 10,039,700</b>	<b>\$ 4,465,300</b>	<b>\$ 9,958,700</b>	<b>\$ (81,000)</b>	<b>-0.8%</b>	<b>\$ 9,969,200</b>	<b>\$ 9,979,700</b>	<b>\$ 9,989,600</b>	<b>\$ 9,999,400</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Systems Control Group's financial plan reflects a Five-Year overall decrease of 0.4% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).



## Capital Outlay

Systems Control five-year capital outlay is funded by the Improvement & Extension (I&E) budget.

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Improvement &amp; Extension</b>	<b>\$ 2,750,000</b>	<b>\$ 2,950,000</b>	<b>\$ 2,562,500</b>	<b>\$ 2,950,000</b>	<b>\$ 2,750,000</b>	<b>\$ 2,750,000</b>
<b>Information Technology</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>	<b>75,000</b>
Software	75,000	75,000	75,000	75,000	75,000	75,000
<b>Machinery &amp; Equipment</b>	<b>2,675,000</b>	<b>2,875,000</b>	<b>2,487,500</b>	<b>2,875,000</b>	<b>2,675,000</b>	<b>2,675,000</b>
Controls & Communication	500,000	500,000	125,000	500,000	500,000	500,000
Pipes, Gates & Valves	300,000	300,000	450,000	300,000	300,000	300,000
Process Equipment	375,000	575,000	412,500	575,000	375,000	375,000
Pumps & Motors	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
<b>Grand Total</b>	<b>\$ 2,750,000</b>	<b>\$ 2,950,000</b>	<b>\$ 2,562,500</b>	<b>\$ 2,950,000</b>	<b>\$ 2,750,000</b>	<b>\$ 2,750,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 2,750,000	\$ 2,950,000	\$ 2,562,500	\$ 2,950,000	\$ 2,750,000	\$ 2,750,000
<b>Grand Total</b>	<b>\$ 2,750,000</b>	<b>\$ 2,950,000</b>	<b>\$ 2,562,500</b>	<b>\$ 2,950,000</b>	<b>\$ 2,750,000</b>	<b>\$ 2,750,000</b>

### *Five-Year Capital Outlay Plan by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Systems Operations Control	\$ 2,750,000	\$ 2,950,000	\$ 2,562,500	\$ 2,950,000	\$ 2,750,000	\$ 2,750,000
<b>Grand Total</b>	<b>\$ 2,750,000</b>	<b>\$ 2,950,000</b>	<b>\$ 2,562,500</b>	<b>\$ 2,950,000</b>	<b>\$ 2,750,000</b>	<b>\$ 2,750,000</b>

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget begins on the next page. The expenses are listed in report order by cost center. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.



Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882301 - Systems Operations Control</b>	<b>\$ 10,746,800</b>	<b>\$ 10,039,700</b>	<b>\$ 4,465,300</b>	<b>\$ 9,958,700</b>	<b>\$ 9,969,200</b>	<b>\$ 9,979,700</b>	<b>\$ 9,989,600</b>	<b>\$ 9,999,400</b>
2.1 Salaries & Wages	2,360,300	2,230,800	1,257,000	2,347,300	2,347,300	2,347,300	2,347,300	2,347,300
2.2 Workforce Development	210,300	231,900	123,400	279,700	279,700	279,700	279,700	279,700
2.3 Overtime	930,700	533,600	500,200	800,000	800,000	800,000	800,000	800,000
2.4 Employee Benefits	941,600	827,900	522,500	1,008,100	1,027,500	1,046,800	1,066,200	1,085,600
2.5 Transition Services	106,100	-	-	-	-	-	-	-
3.1 Electric	70,400	51,000	27,300	65,000	65,000	65,000	65,000	65,000
3.2 Gas	200	10,100	100	500	500	500	500	500
3.3 Sewage Service	8,800	16,000	500	9,000	9,000	9,000	9,000	9,000
3.4 Water Service	500	1,000	200	600	600	600	600	600
<b>4.2 Supplies &amp; Other</b>	<b>786,500</b>	<b>945,800</b>	<b>306,700</b>	<b>783,600</b>	<b>783,900</b>	<b>784,400</b>	<b>784,400</b>	<b>784,400</b>
Capital Outlay less than \$5,000	223,200	102,000	22,500	130,000	130,000	130,000	130,000	130,000
Employee Uniform Expense	18,300	25,500	10,900	20,000	20,000	20,000	20,000	20,000
Inspection and Permit Fees	-	2,000	-	1,000	1,000	1,000	1,000	1,000
Memberships, Licenses & Subscriptions	900	12,200	500	10,400	10,500	10,600	10,600	10,600
Mileage and Parking	3,900	5,100	2,200	4,000	4,000	4,000	4,000	4,000
Office Supplies	11,200	15,400	3,700	12,200	12,200	12,200	12,200	12,200
Operating Supplies	156,100	210,100	19,300	169,700	169,800	169,900	169,900	169,900
Operating Supplies-Janitorial	300	3,100	300	1,000	1,000	1,000	1,000	1,000
Property Taxes	3,400	10,200	-	4,000	4,000	4,000	4,000	4,000
Rentals-Buildings	30,700	41,100	14,200	38,100	38,100	38,100	38,100	38,100
Repairs & Maintenance-Equipment	93,800	253,600	37,500	135,000	135,000	135,000	135,000	135,000
Repairs & Maintenance-Hardware	118,300	110,000	181,300	119,000	119,000	119,000	119,000	119,000
Repairs & Maintenance-Software	61,900	123,900	3,900	73,200	73,300	73,400	73,400	73,400
Training and Internal Meetings	47,000	20,400	3,700	53,000	53,000	53,200	53,200	53,200
Travel	14,700	10,200	6,700	10,000	10,000	10,000	10,000	10,000
Tuition Refund	<b>2,800</b>	<b>1,000</b>	-	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>
<b>4.3 Contractual Services</b>	<b>4,887,800</b>	<b>5,703,100</b>	<b>1,967,100</b>	<b>5,207,000</b>	<b>5,207,000</b>	<b>5,207,000</b>	<b>5,207,000</b>	<b>5,207,000</b>
Contract Services-Information Technology	7,000	-	13,600	210,000	210,000	210,000	210,000	210,000
Contractual Buildings & Grounds Maint	(27,000)	202,000	1,000	5,000	5,000	5,000	5,000	5,000
Contractual Operating Services	<b>1,663,100</b>	<b>1,815,900</b>	<b>607,100</b>	<b>1,392,000</b>	<b>1,392,000</b>	<b>1,392,000</b>	<b>1,392,000</b>	<b>1,392,000</b>
Contractual Professional Services	3,244,700	3,685,200	1,345,400	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000
<b>5.1 Capital Program Allocation</b>	<b>(90,200)</b>	<b>(82,300)</b>	<b>(25,100)</b>	<b>(104,300)</b>	<b>(104,700)</b>	<b>(105,100)</b>	<b>(105,500)</b>	<b>(105,900)</b>
<b>5.2 Shared Services</b>	<b>533,800</b>	<b>(429,200)</b>	<b>(214,600)</b>	<b>(437,800)</b>	<b>(446,600)</b>	<b>(455,500)</b>	<b>(464,600)</b>	<b>(473,800)</b>
Shared Services : Salaries & Wages Reimb	(26,500)	(135,500)	(67,800)	(138,200)	(141,000)	(143,800)	(146,700)	(149,600)
Shared Services Reimbursement	585,600	(239,600)	(119,800)	(244,400)	(249,300)	(254,300)	(259,400)	(264,500)
Shared Services: Employee Benefit Reimb	(25,300)	(54,100)	(27,000)	(55,200)	(56,300)	(57,400)	(58,500)	(59,700)
<b>Grand Total</b>	<b>\$ 10,746,800</b>	<b>\$ 10,039,700</b>	<b>\$ 4,465,300</b>	<b>\$ 9,958,700</b>	<b>\$ 9,969,200</b>	<b>\$ 9,979,700</b>	<b>\$ 9,989,600</b>	<b>\$ 9,999,400</b>

## Highlights

The Facility Operations Area strategic initiatives include the following.

❖ **Improving buildings and grounds efficiency**

Ensure facilities, buildings and grounds are properly maintained, secure, environmentally safe and upgraded to support GLWA's specific operations.

❖ **Proper staffing levels**

Ensure adequate staffing levels in order to increase proactive facility maintenance.

The table below shows how the facility operations area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Facility Operations Strategic Initiatives	Improving building & grounds efficiency				x	x						
	Proper staffing levels					x	x			x	x	

## Facility Operations Contracts

The Facility Operations budget contains several contractual services to handle maintenance and repairs for all GLWA facilities including but not limited to lawn care, snow removal, rubbish removal, elevator maintenance and extermination services. Budgeted amounts beyond contract date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process. In the chart below are the key contracts for these services.

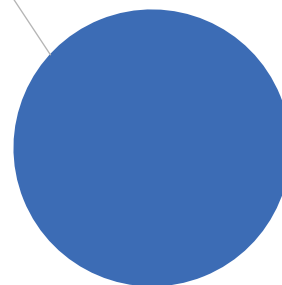
Project Description	Deicing/Snow Removal Services	Extermination Services	Lawncare/ Grounds Maintenance	Elevators Preventative Maintenance & Repair Service	Refuse & Recycling Service	Shared Facilities Shared Cost	Total
Prime Consultant	Premier Group Associates	Rose Pest Solutions	Premier Group Associates	ThyssenKrupp Elevator Service	Waste Management	OPS-006 DWSD Shared Service	
Contract #	1901555	1803933	1900702	1703524	1902536		
Contract Amount	\$1,079,053	\$180,000	\$1,679,388	\$978,987	\$322,131		
Contract End Date	11/30/21	02/28/22	07/31/21	10/31/20	10/15/21	N/A	
Pre-FY 2019 Spend	\$ 195,543	\$ 42,655	\$ 626,898	\$ 125,686	\$ 49,026	\$ 2,354,364	\$ 3,394,171
FY 2019 Actual	413,134	59,598	756,291	511,070	62,558	1,478,769	3,281,420
FY 2020 Budget	1,020,000	50,000	1,100,000	600,000	100,000	2,300,000	5,170,000
<b>FY 2021 Requested</b>	<b>600,000</b>	<b>50,000</b>	<b>900,000</b>	<b>500,000</b>	<b>85,000</b>	<b>1,100,000</b>	<b>3,235,000</b>
FY 2022 Requested	600,000	50,000	900,000	500,000	85,000	1,100,000	3,235,000
FY 2023 Requested	600,000	50,000	900,000	500,000	85,000	1,100,000	3,235,000
FY 2024 Requested	600,000	50,000	900,000	500,000	85,000	1,100,000	3,235,000
FY 2025 Requested	600,000	50,000	900,000	500,000	85,000	1,100,000	3,235,000
<b>Total</b>	<b>\$ 4,628,677</b>	<b>\$ 402,253</b>	<b>\$ 6,983,189</b>	<b>\$ 3,736,756</b>	<b>\$ 636,584</b>	<b>\$ 11,633,133</b>	<b>\$28,020,592</b>

## Organization

The GLWA Facility Operations Area is responsible for maintaining and managing all properties, such as the grounds and structures associated with the water and wastewater system.

## FY 2021 REQUEST BY TEAM

Facility Operations  
100%



## Expense Categories

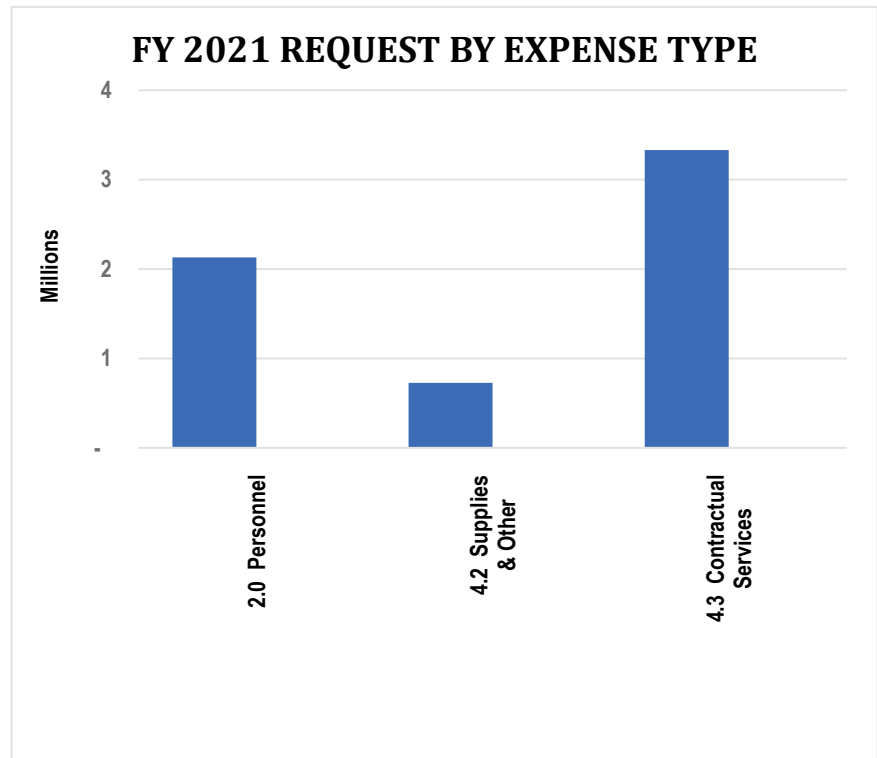
There are two major categories of Facility Operations expenses in the Operations and Maintenance Budget as listed below.

- ❖ Contractual Services
- ❖ Personnel Costs

Contractual Services is the highest expense category for Facility Operations. The level of contractual services reflects the decision to contract for certain non-core services which includes lawn care maintenance, snow removal, rubbish removal, extermination services, elevator maintenance, preventative maintenance, Detroit Water &

Sewerage Department (DWSD) shared services (OPS-006 – Shared Facilities Shared Cost) as well as the efficient management of peak workload activities.

Personnel costs is the second highest expense category.



## Biennial Budget Request

The biennial budget reflects a decrease in FY 2021 as a result of the in-sourcing of trade services which decreases a combination of contractual operating services and repairs & maintenance-buildings & grounds services (supplies & other).

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 1,576,100	\$ 2,090,400	\$ 986,800	\$ 2,129,600	\$ 39,200	1.9%	\$ 2,139,400
4.2 Supplies & Other	728,300	963,200	414,800	727,900	(235,300)	-24.4%	709,600
4.3 Contractual Services	3,025,000	3,546,400	2,229,200	3,330,800	(215,600)	-6.1%	3,332,200
5.2 Shared Services	29,500	-	-	-	-	0.0%	-
<b>Grand Total</b>	<b>\$ 5,358,900</b>	<b>\$ 6,600,000</b>	<b>\$ 3,630,800</b>	<b>\$ 6,188,300</b>	<b>\$ (411,700)</b>	<b>-6.2%</b>	<b>\$ 6,181,200</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Facility Operations	\$ 5,358,900	\$ 6,600,000	\$ 3,630,800	\$ 6,188,300	\$ (411,700)	-6.2%	\$ 6,181,200
<b>Grand Total</b>	<b>\$ 5,358,900</b>	<b>\$ 6,600,000</b>	<b>\$ 3,630,800</b>	<b>\$ 6,188,300</b>	<b>\$ (411,700)</b>	<b>-6.2%</b>	<b>\$ 6,181,200</b>

## Personnel Budget

Facility Operations personnel consists of 25 positions for FY 2021 and is largely comprised of operations staffing that perform a variety of skilled facility and fleet work relative to the operations and maintenance of water and wastewater facilities. The staffing level is in the tables below.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### Staffing Plan – Number of Positions

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
Facility Operations	22.00	25.00	25.00	25.00	25.00	25.00	25.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

*Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
Facility Operations	22.00	25.00	24.50	24.50	24.50	24.50	24.50

*Personnel Budget* - The table below presents the Facility Operations personnel budget which consists of the following expense categories: Salaries & Wages, Overtime and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

*Personnel Budget*

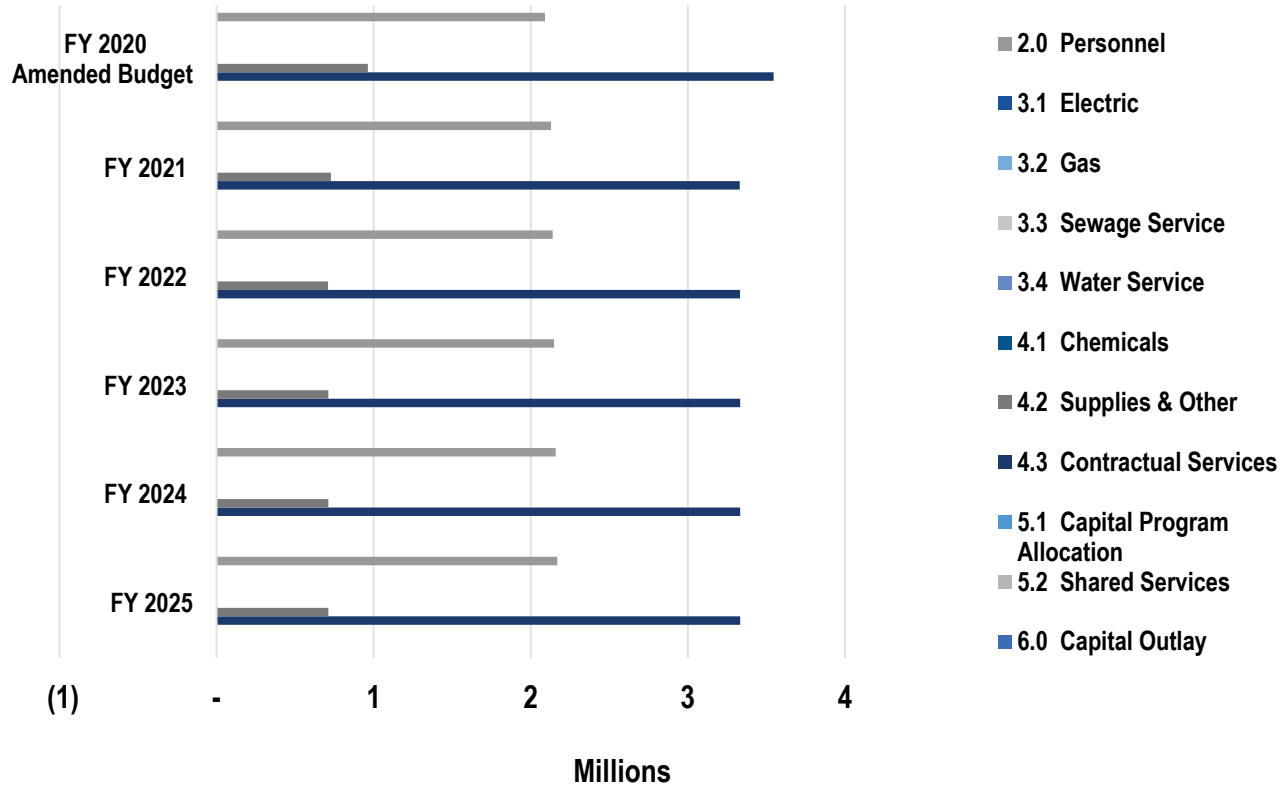
Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Facility Operations	\$ 2,090,400	\$ 2,129,600	\$ 2,139,400	\$ 2,149,300	\$ 2,159,100	\$ 2,169,000

## Five Year Financial Plan

*Five-Year Financial Plan by Expense Category*

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 2,090,400	\$ 986,800	\$ 2,129,600	\$ 39,200	1.9%	\$ 2,139,400	\$ 2,149,300	\$ 2,159,100	\$ 2,169,000
4.2 Supplies & Other	963,200	414,800	727,900	(235,300)	-24.4%	709,600	711,300	711,300	711,300
4.3 Contractual Services	3,546,400	2,229,200	3,330,800	(215,600)	-6.1%	3,332,200	3,333,600	3,333,600	3,333,600
<b>Grand Total</b>	<b>\$ 6,600,000</b>	<b>3,630,800</b>	<b>\$ 6,188,300</b>	<b>\$ (411,700)</b>	<b>-6.2%</b>	<b>\$ 6,181,200</b>	<b>\$ 6,194,200</b>	<b>\$ 6,204,000</b>	<b>\$ 6,213,900</b>

## Five Year Financial Plan



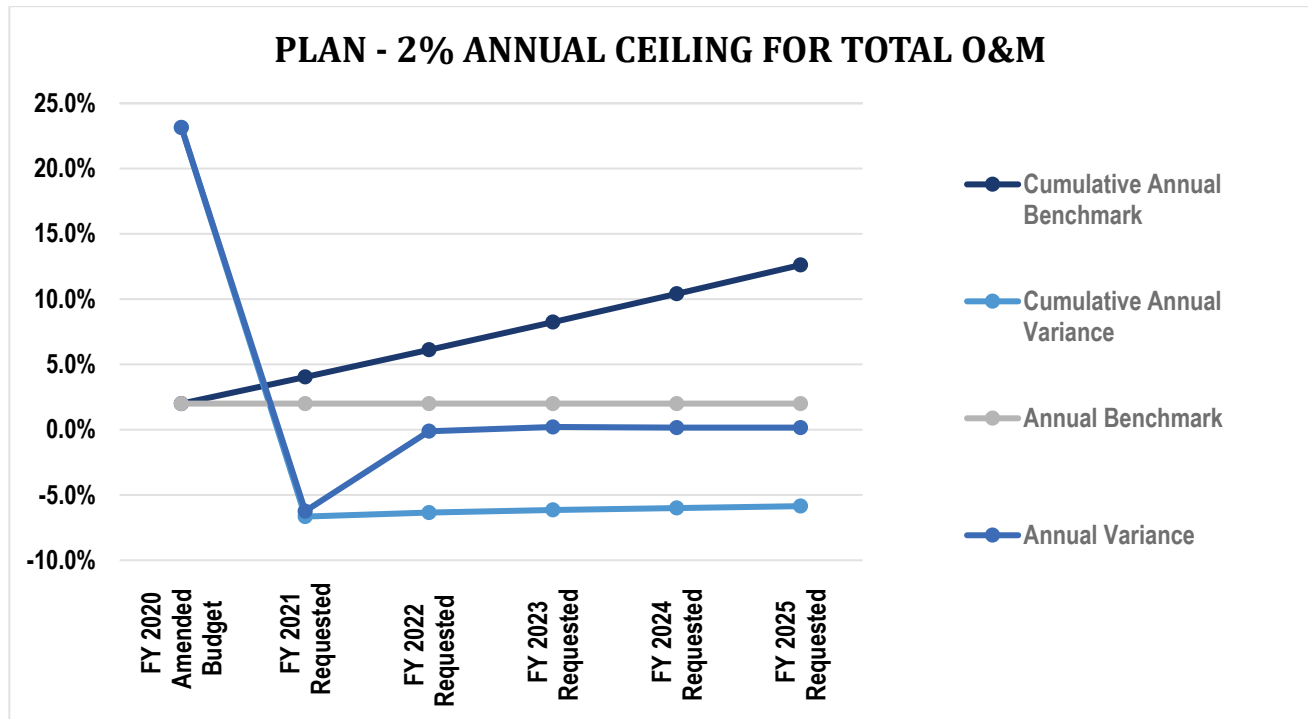
### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Facility Operations	\$ 6,600,000	\$ 3,630,800	\$ 6,188,300	\$ (411,700)	-6.2%	\$ 6,181,200	\$ 6,194,200	\$ 6,204,000	\$ 6,213,900
Grand Total	\$ 6,600,000	\$ 3,630,800	\$ 6,188,300	\$ (411,700)	-6.2%	\$ 6,181,200	\$ 6,194,200	\$ 6,204,000	\$ 6,213,900



*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Facility Operations Group's financial plan reflects a Five-Year Overall decrease of 5.9% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).



## Capital Outlay

Facility Operations five-year capital outlay is funded by the Improvement & Extension (I&E) budget. Note that facility improvements are budgeted to align with cost centers requests for improvement. For further detail about entity-wide facility improvements, please see Section 6 - Capital Investment (Capital Outlay Financial Plan).

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
Machinery & Equipment	125,000	125,000	125,000	125,000	125,000	125,000
Furniture & Fixtures	100,000	100,000	100,000	100,000	100,000	100,000
Heavy Equipment	15,000	15,000	15,000	15,000	15,000	15,000
Pumps & Motors	10,000	10,000	10,000	10,000	10,000	10,000
<b>Grand Total</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
<b>Grand Total</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>

### *Five-Year Capital Outlay Plan by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Facility Operations	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
<b>Grand Total</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>	<b>\$ 125,000</b>

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget begins on the next page. The expenses are listed in report order by cost center. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882421 - Facility Operations</b>	<b>\$ 5,358,900</b>	<b>\$ 6,600,000</b>	<b>\$ 3,630,800</b>	<b>\$ 6,188,300</b>	<b>\$ 6,181,200</b>	<b>\$ 6,194,200</b>	<b>\$ 6,204,000</b>	<b>\$ 6,213,900</b>
2.1 Salaries & Wages	1,170,200	1,560,100	716,800	1,597,900	1,597,900	1,597,900	1,597,900	1,597,900
2.3 Overtime	15,300	25,000	6,700	20,000	20,000	20,000	20,000	20,000
2.4 Employee Benefits	390,600	505,300	263,300	511,700	521,500	531,400	541,200	551,100
<b>4.2 Supplies &amp; Other</b>	<b>728,300</b>	<b>963,200</b>	<b>414,800</b>	<b>727,900</b>	<b>709,600</b>	<b>711,300</b>	<b>711,300</b>	<b>711,300</b>
Capital Outlay less than \$5,000	197,900	100,000	49,800	125,000	125,000	125,000	125,000	125,000
Employee Uniform Expense	10,200	15,000	3,800	10,000	10,000	10,000	10,000	10,000
Inspection and Permit Fees	1,200	10,000	800	2,000	2,000	2,000	2,000	2,000
Memberships, Licenses & Subscriptions	10,900	2,500	6,300	8,000	8,000	8,000	8,000	8,000
Mileage and Parking	-	2,000	100	500	500	500	500	500
Office Supplies	6,900	20,400	3,600	8,000	8,000	8,000	8,000	8,000
Operating Supplies	209,600	291,000	124,000	231,000	231,000	231,000	231,000	231,000
Operating Supplies-Janitorial	4,300	13,800	1,000	5,000	5,000	5,000	5,000	5,000
Rentals-Buildings	-	20,000	-	-	-	-	-	-
Rentals-Miscellaneous	60,700	25,000	81,500	50,000	50,000	50,000	50,000	50,000
Repairs & Maintenance-Buildings & Ground	221,700	448,000	143,000	279,400	261,100	262,800	262,800	262,800
Repairs & Maintenance-Equipment	-	-	700	-	-	-	-	-
Training and Internal Meetings	1,200	10,000	200	5,000	5,000	5,000	5,000	5,000
Travel	2,200	2,500	-	2,500	2,500	2,500	2,500	2,500
Tuition Refund	1,500	3,000	-	1,500	1,500	1,500	1,500	1,500
<b>4.3 Contractual Services</b>	<b>3,025,000</b>	<b>3,546,400</b>	<b>2,229,200</b>	<b>3,330,800</b>	<b>3,332,200</b>	<b>3,333,600</b>	<b>3,333,600</b>	<b>3,333,600</b>
Contractual Buildings & Grounds Maint	1,613,800	1,430,400	1,028,900	1,227,000	1,227,000	1,227,000	1,227,000	1,227,000
Contractual Operating Services	1,411,200	2,116,000	1,200,300	2,103,800	2,105,200	2,106,600	2,106,600	2,106,600
<b>5.2 Shared Services</b>	<b>29,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Shared Services : Salaries & Wages Reimb	14,000	-	-	-	-	-	-	-
Shared Services Reimbursement	13,100	-	-	-	-	-	-	-
Shared Services: Employee Benefit Reimb	2,400	-	-	-	-	-	-	-
<b>Grand Total</b>	<b>\$ 5,358,900</b>	<b>\$ 6,600,000</b>	<b>\$ 3,630,800</b>	<b>\$ 6,188,300</b>	<b>\$ 6,181,200</b>	<b>\$ 6,194,200</b>	<b>\$ 6,204,000</b>	<b>\$ 6,213,900</b>

## Highlights

The Fleet Operations Area strategic initiatives includes the following.

❖ **Improving vehicle efficiency**

Ensure vehicles are properly maintained, functioning properly and safely as well as matched to the job requirements to support GLWA's operational needs.

❖ **Proper staffing levels**

Ensure adequate proactive fleet maintenance and upgrades.

The table below shows how the fleet operations area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Fleet Operations Strategic Initiatives	Improve Vehicle Efficiency		x		x	x	x					
	Proper Staffing Levels				x	x	x				x	

## Fleet Operations Contracts

The Fleet Operations budget contains several contractual services to ensure the company vehicles are in safe, operable conditions while controlling costs, productivity and fuel management. In the chart below are the key contracts for these services. Budgeted amounts beyond contract date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process.

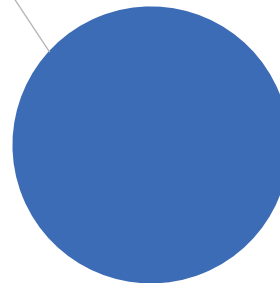
Project Description	Fleet Maintenance	Fleet Maintenance	Fuel use at DWSD locations	Furnish Fuel & Diesel Fuel	Rental of Fleet Vehicles	Total
Prime Consultant	OPS-001 Shared Service	Enterprise Holding Inc	Fuel Shared Services	Waterfront Petroleum Terminal Co.	Enterprise Holding Inc	
Contract #				2850143	1802910	
Contract Amount				\$1,562,738	\$187,000	
Contract End Date	N/A	TBD	N/A	07/31/20	9/13/20	
Pre-FY 2019 Spend	\$ 2,150,896		\$ 36,334	\$ 316,992	\$ -	\$ 2,504,222
FY 2019 Actual	2,150,900		-	447,405	82,448	2,680,753
FY 2020 Budget	1,200,000	300,000	90,000	357,000	-	1,947,000
<b>FY 2021 Requested</b>	<b>-</b>	<b>1,530,000</b>	<b>91,800</b>	<b>408,200</b>	<b>40,000</b>	<b>2,070,000</b>
FY 2022 Requested	-	1,560,600	93,600	408,200	-	2,062,400
FY 2023 Requested	-	1,591,800	95,500	408,200	-	2,095,500
FY 2024 Requested	-	1,623,600	97,400	408,200	-	2,129,200
FY 2025 Requested	-	1,623,600	97,400	408,200	-	2,129,200
<b>Total</b>	<b>\$ 5,501,796</b>	<b>\$ 8,229,600</b>	<b>\$ 602,034</b>	<b>\$ 3,162,397</b>	<b>\$ 122,448</b>	<b>\$17,618,275</b>

## Organization

The GLWA Fleet Operations Area is responsible for maintaining and managing all vehicles, such as the cars, trucks, lifts, vacuum tanker, etc. associated with the water and wastewater system while ensuring vehicles and equipment are properly matched to the job requirements and functioning properly and safely.

## FY 2021 REQUEST BY TEAM

Fleet Operations  
100%

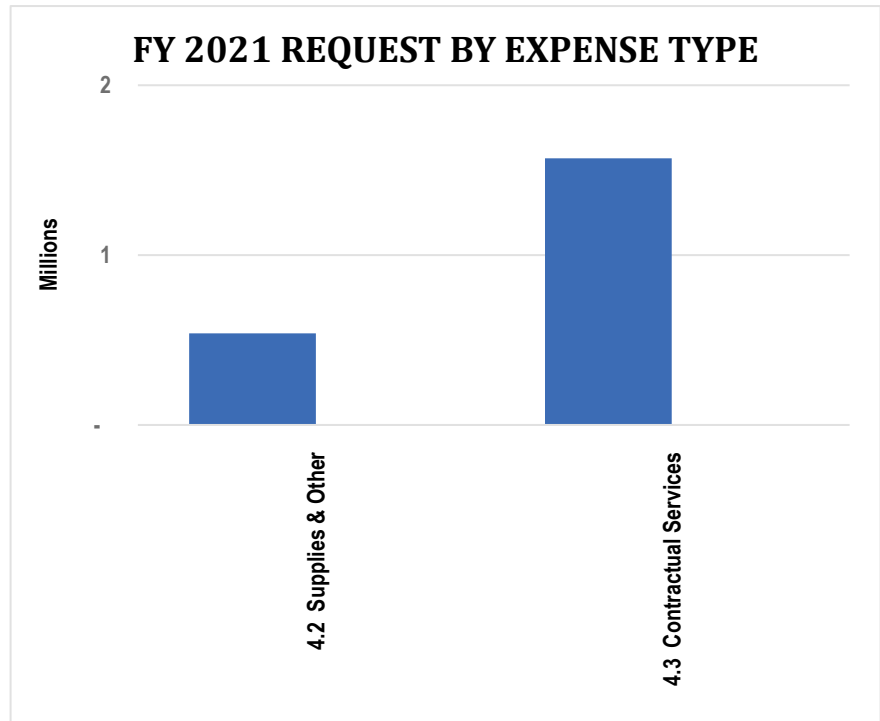


### Expense Categories

There is one major category of Fleet Operations expenses in the Operations and Maintenance Budget as listed below.

#### ❖ Contractual Services

Contractual Services is the highest expense category for Fleet Operations. The level of contractual services reflects the newly awarded contract with Enterprise Holdings Inc.



## Biennial Budget Request

The biennial budget reflects an increase in FY 2021 as a result of the contractual services for vehicle maintenance with Enterprise Fleet Management (\$30k) and contracts for short-term critical vehicle rentals from Enterprise Holding Inc. and Herc Rentals (\$40k). GLWA has given notice to DWSD regarding shared services agreement (OPS-001 – Fleet) which will conclude on July 1, 2020.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
4.2 Supplies & Other	\$ 451,200	\$ 534,500	\$ 277,200	\$ 539,000	\$ 4,500	0.8%	\$ 540,800
4.3 Contractual Services	1,077,400	1,500,000	802,300	1,570,000	70,000	4.7%	1,560,600
<b>Grand Total</b>	<b>\$ 1,528,600</b>	<b>\$ 2,034,500</b>	<b>\$ 1,079,500</b>	<b>\$ 2,109,000</b>	<b>\$ 74,500</b>	<b>3.7%</b>	<b>\$ 2,101,400</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Fleet Operations	\$ 1,528,600	\$ 2,034,500	\$ 1,079,500	\$ 2,109,000	\$ 74,500	3.7%	\$ 2,101,400
<b>Grand Total</b>	<b>\$ 1,528,600</b>	<b>\$ 2,034,500</b>	<b>\$ 1,079,500</b>	<b>\$ 2,109,000</b>	<b>\$ 74,500</b>	<b>3.7%</b>	<b>\$ 2,101,400</b>

## Personnel Budget

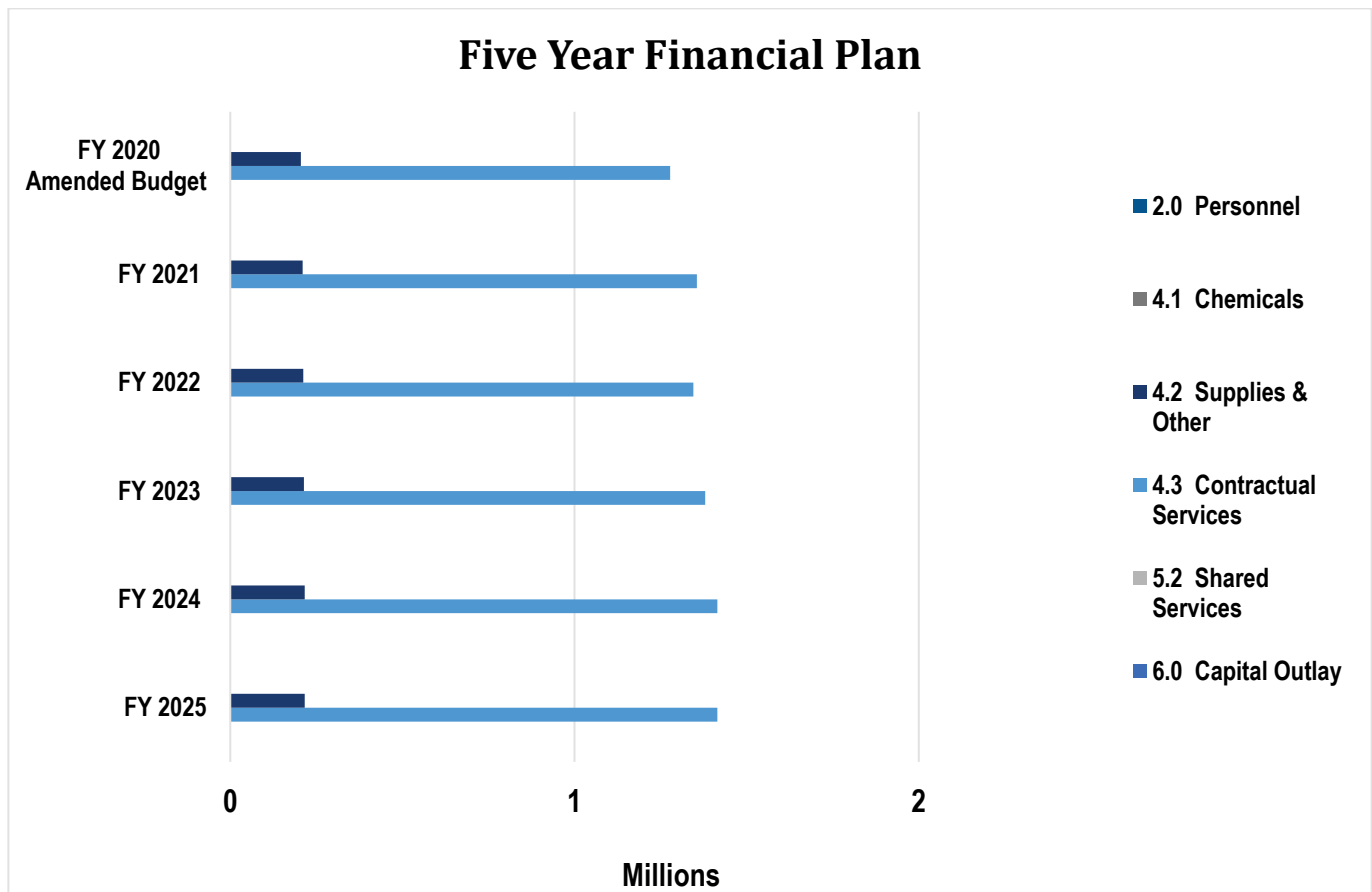
Personnel budget is not a component of the Fleet Operations Area. Staffing for this area is included in the Facility Operations budget.



## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
4.2 Supplies & Other	\$ 534,500	\$ 277,200	\$ 539,000	\$ 4,500	0.8%	\$ 540,800	\$ 542,700	\$ 544,600	\$ 544,600
4.3 Contractual Services	1,500,000	802,300	1,570,000	70,000	4.7%	1,560,600	1,591,800	1,623,600	1,623,600
<b>Grand Total</b>	<b>\$ 2,034,500</b>	<b>\$ 1,079,500</b>	<b>\$ 2,109,000</b>	<b>\$ 74,500</b>	<b>3.7%</b>	<b>\$ 2,101,400</b>	<b>\$ 2,134,500</b>	<b>\$ 2,168,200</b>	<b>\$ 2,168,200</b>

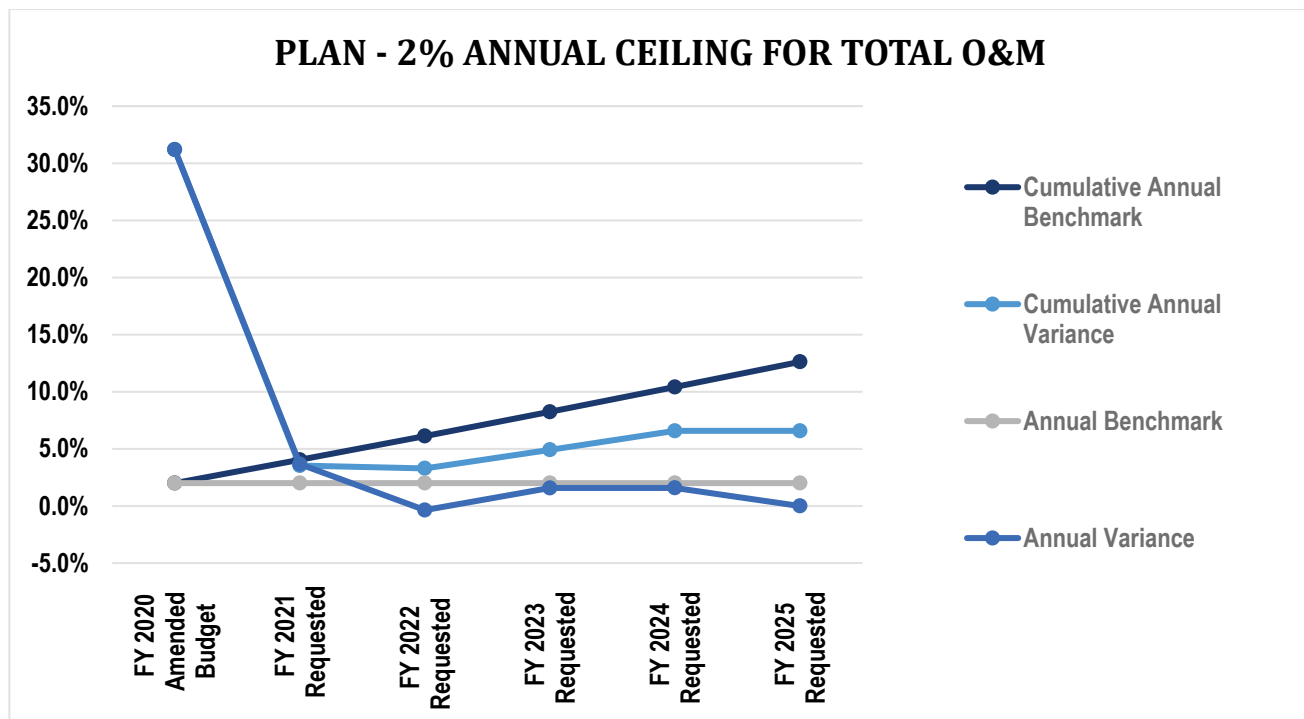


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Fleet Operations	\$ 2,034,500	\$ 1,079,500	\$ 2,109,000	\$ 74,500	3.7%	\$ 2,101,400	\$ 2,134,500	\$ 2,168,200	\$ 2,168,200
<b>Grand Total</b>	<b>\$ 2,034,500</b>	<b>\$ 1,079,500</b>	<b>\$ 2,109,000</b>	<b>\$ 74,500</b>	<b>3.7%</b>	<b>\$ 2,101,400</b>	<b>\$ 2,134,500</b>	<b>\$ 2,168,200</b>	<b>\$ 2,168,200</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Fleet Operations Group's financial plan reflects a Five-Year Overall increase of 6.6% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).



## Capital Outlay

Fleet Operations five-year capital outlay is funded by the Improvement & Extension (I&E) budget.

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 1,510,200	\$ 2,542,600	\$ 2,305,200	\$ 3,011,600	\$ 2,000,000	\$ 2,470,000
Machinery & Equipment	470,000	470,000	470,000	89,000	-	470,000
Heavy Equipment	470,000	470,000	470,000	89,000	-	470,000
Vehicles	1,040,200	2,072,600	1,835,200	2,922,600	2,000,000	2,000,000
Vehicles	1,040,200	2,072,600	1,835,200	2,922,600	2,000,000	2,000,000
<b>Grand Total</b>	<b>\$ 1,510,200</b>	<b>\$ 2,542,600</b>	<b>\$ 2,305,200</b>	<b>\$ 3,011,600</b>	<b>\$ 2,000,000</b>	<b>\$ 2,470,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 1,510,200	\$ 2,542,600	\$ 2,305,200	\$ 3,011,600	\$ 2,000,000	\$ 2,470,000
<b>Grand Total</b>	<b>\$ 1,510,200</b>	<b>\$ 2,542,600</b>	<b>\$ 2,305,200</b>	<b>\$ 3,011,600</b>	<b>\$ 2,000,000</b>	<b>\$ 2,470,000</b>

### *Five-Year Capital Outlay Plan by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Fleet Operations	\$ 1,510,200	\$ 2,542,600	\$ 2,305,200	\$ 3,011,600	\$ 2,000,000	\$ 2,470,000
<b>Grand Total</b>	<b>\$ 1,510,200</b>	<b>\$ 2,542,600</b>	<b>\$ 2,305,200</b>	<b>\$ 3,011,600</b>	<b>\$ 2,000,000</b>	<b>\$ 2,470,000</b>

### Line Item Budget and Financial Plan

The five-year plan with a line item expense budget is reflected below. The expenses are listed in report order by cost center. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882422 - Fleet Operations</b>	<b>\$ 1,528,600</b>	<b>\$ 2,034,500</b>	<b>\$ 1,079,500</b>	<b>\$ 2,109,000</b>	<b>\$ 2,101,400</b>	<b>\$ 2,134,500</b>	<b>\$ 2,168,200</b>	<b>\$ 2,168,200</b>
<b>4.2 Supplies &amp; Other</b>	<b>451,200</b>	<b>534,500</b>	<b>277,200</b>	<b>539,000</b>	<b>540,800</b>	<b>542,700</b>	<b>544,600</b>	<b>544,600</b>
Inspection and Permit Fees	700	1,000	-	1,000	1,000	1,000	1,000	1,000
Operating Supplies – Fuel	430,900	447,000	253,200	500,000	501,800	503,700	505,600	505,600
Operating Supplies-Automotive	9,200	10,000	6,600	9,000	9,000	9,000	9,000	9,000
Repairs & Maintenance-Automotive	10,400	76,500	17,400	29,000	29,000	29,000	29,000	29,000
<b>4.3 Contractual Services</b>	<b>1,077,400</b>	<b>1,500,000</b>	<b>802,300</b>	<b>1,570,000</b>	<b>1,560,600</b>	<b>1,591,800</b>	<b>1,623,600</b>	<b>1,623,600</b>
Contractual Operating Services	995,000	1,500,000	750,000	1,530,000	1,560,600	1,591,800	1,623,600	1,623,600
Contractual Vehicle Services	82,400	-	52,300	40,000	-	-	-	-
<b>Grand Total</b>	<b>\$ 1,528,600</b>	<b>\$ 2,034,500</b>	<b>\$ 1,079,500</b>	<b>\$ 2,109,000</b>	<b>\$ 2,101,400</b>	<b>\$ 2,134,500</b>	<b>\$ 2,168,200</b>	<b>\$ 2,168,200</b>

## Highlights

The Field Service Operations Area strategic initiatives include the following.

❖ **Sewer & Valve Condition Assessment Program**

Expedite Sewer Condition Assessment Program for the remaining conveyance system.  
 Expedite Valve Assessment and replacement program to improve service reliability.

❖ **Transmission Main Assessment & Rehabilitation**

Design, initiate and complete construction of water mains for various sites and locations.

The table below shows how the field service operations area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Field Service Operations Strategic Initiatives	Sewer & Valve Condition Assessment Program			x	x	x	x	x	x			x
	Transmission Main Assessment & Rehabilitation			X	x	x	x	x	x	x		x

## Field Service Operations Contracts

The Field Service Operations budget contains several contractual services to assess the current condition of water transmission mains, repair sewers, install, or maintain equipment and systems. In the chart below are the key contracts for these services. Budgeted amounts beyond contract date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process.

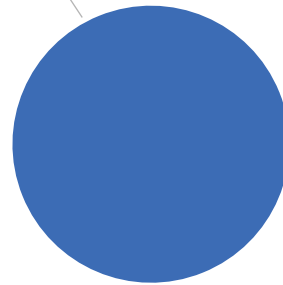
Project Description	Water Transmission Main Repair	Water Transmission Main Repair	Sewer Repair Contract	Gate Valve Inspection/ Exercising	Specialized Services (contract split w/ Systems Control)	As Needed Field Services	Miss Digg	Total
Prime Consultant	Lakeshore Global Corp	Ric-Man Construction Inc.	Inland Waters Pollution Control, Inc.	TBD	Lakeshore Global Corp	OPS-003 Shared Service	OPS-002 Shared Service	
Contract #	GLWA-CON-181	1802745	CON-149	GLWA-WS-695C	GLWA-CON-158			
Contract Amount	\$5,000,000	\$5,000,000	\$24,884,800	TBD	\$15,139,200			
Contract End Date	10/13/20	08/26/21	07/17/21	TBD	07/17/20	N/A	N/A	
Pre-FY 2019 Spend	\$ 1,199,282	\$ -	\$ 7,297,292	\$ 192,171	\$ -	\$ 204,577	\$ -	\$ 8,893,322
FY 2019 Actual	1,117,230	-	6,008,324	1,036,330	3,135,344	26,973	74,889	11,399,090
FY 2020 Budget	1,275,000	1,275,000	4,732,800	2,244,000	3,200,000	100,000	100,000	12,926,800
<b>FY 2021 Requested</b>	<b>1,250,000</b>	<b>1,250,000</b>	<b>4,325,600</b>	<b>1,788,000</b>	<b>3,200,000</b>	<b>102,000</b>	<b>102,000</b>	<b>12,017,600</b>
FY 2022 Requested	1,250,000	1,250,000	4,418,400	1,832,000	3,200,000	104,000	104,000	12,158,400
FY 2023 Requested	1,250,000	1,250,000	4,511,200	1,876,000	3,200,000	106,100	106,100	12,299,400
FY 2024 Requested	1,250,000	1,250,000	4,511,200	1,876,000	3,200,000	108,200	108,200	12,303,600
FY 2025 Requested	1,250,000	1,250,000	4,511,200	1,876,000	3,200,000	110,400	110,400	12,308,000
<b>Total</b>	<b>\$ 9,841,512</b>	<b>\$ 7,525,000</b>	<b>\$ 40,316,016</b>	<b>\$ 12,720,501</b>	<b>\$ 22,335,344</b>	<b>\$ 862,250</b>	<b>\$ 705,589</b>	<b>\$ 94,306,212</b>

**Organization**

The Field Service Operations Area is responsible for ensuring reliable service of customer delivery and collection in the water system, as well as all associated equipment, such as valves, gates, interceptors and siphons.

**FY 2021 REQUEST BY TEAM**

Field Service Operations  
100%



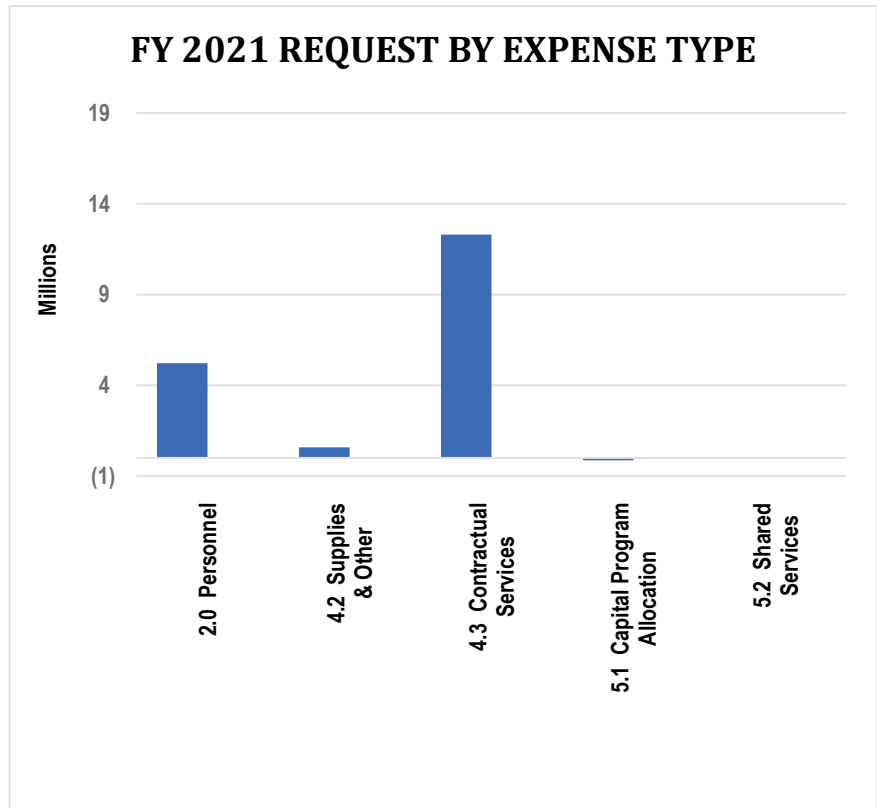


## Expense Categories

There are two major categories of Field Service Operations expenses in the Operations and Maintenance Budget as listed below.

- ❖ Contractual Services
- ❖ Personnel Costs

Contractual Services is the highest expense category for Field Service Operations. The level of contractual services supports the complex nature of the water transmission and wastewater collection system. The level also reflects the decision to contract for certain non-core services as well as the efficient management of peak workload activities.



Personnel costs are the second highest expense category.

## Biennial Budget Request

The biennial budget reflects an overall decrease of \$35,000 in FY 2021 as a result of an expected increase in operating supplies and a decrease in contractual services based on previous years activity.

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 4,457,400	\$ 5,214,200	\$ 2,425,000	\$ 5,216,300	\$ 2,100	0.0%	\$ 5,241,100
4.2 Supplies & Other	637,900	402,700	219,700	578,200	175,500	43.6%	578,200
4.3 Contractual Services	11,663,200	12,521,300	4,566,000	12,308,100	(213,200)	-1.7%	12,453,900
5.1 Capital Program Allocation	(600)	(128,400)	-	(127,500)	900	-0.7%	(128,000)
5.2 Shared Services	(28,400)	(16,700)	(8,300)	(17,000)	(300)	1.8%	(17,400)
<b>Grand Total</b>	<b>\$ 16,729,500</b>	<b>\$ 17,993,100</b>	<b>\$ 7,202,400</b>	<b>\$ 17,958,100</b>	<b>\$ (35,000)</b>	<b>-0.2%</b>	<b>\$ 18,127,800</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Field Service Operations	\$ 16,729,500	\$ 17,993,100	\$ 7,202,400	\$ 17,958,100	\$ (35,000)	-0.2%	\$ 18,127,800
<b>Grand Total</b>	<b>\$ 16,729,500</b>	<b>\$ 17,993,100</b>	<b>\$ 7,202,400</b>	<b>\$ 17,958,100</b>	<b>\$ (35,000)</b>	<b>-0.2%</b>	<b>\$ 18,127,800</b>

## Personnel Budget

Field Service Operations personnel consists of 65 positions for FY 2021. Field Service Operations is largely comprised of operations staffing that perform a variety of skilled field work relative to the operations and maintenance of water and wastewater systems. The staffing level is in the tables below.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
Field Service Operations	65.00	65.00	65.00	65.00	65.00	65.00	65.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

### *Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
Field Service Operations	65.00	65.00	65.00	65.00	65.00	65.00	65.00

*Personnel Budget* - The table below presents the Field Service Operations personnel budget which consists of the following expense categories: Salaries & Wages, Salaries & Wages – Workforce Development, Overtime and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

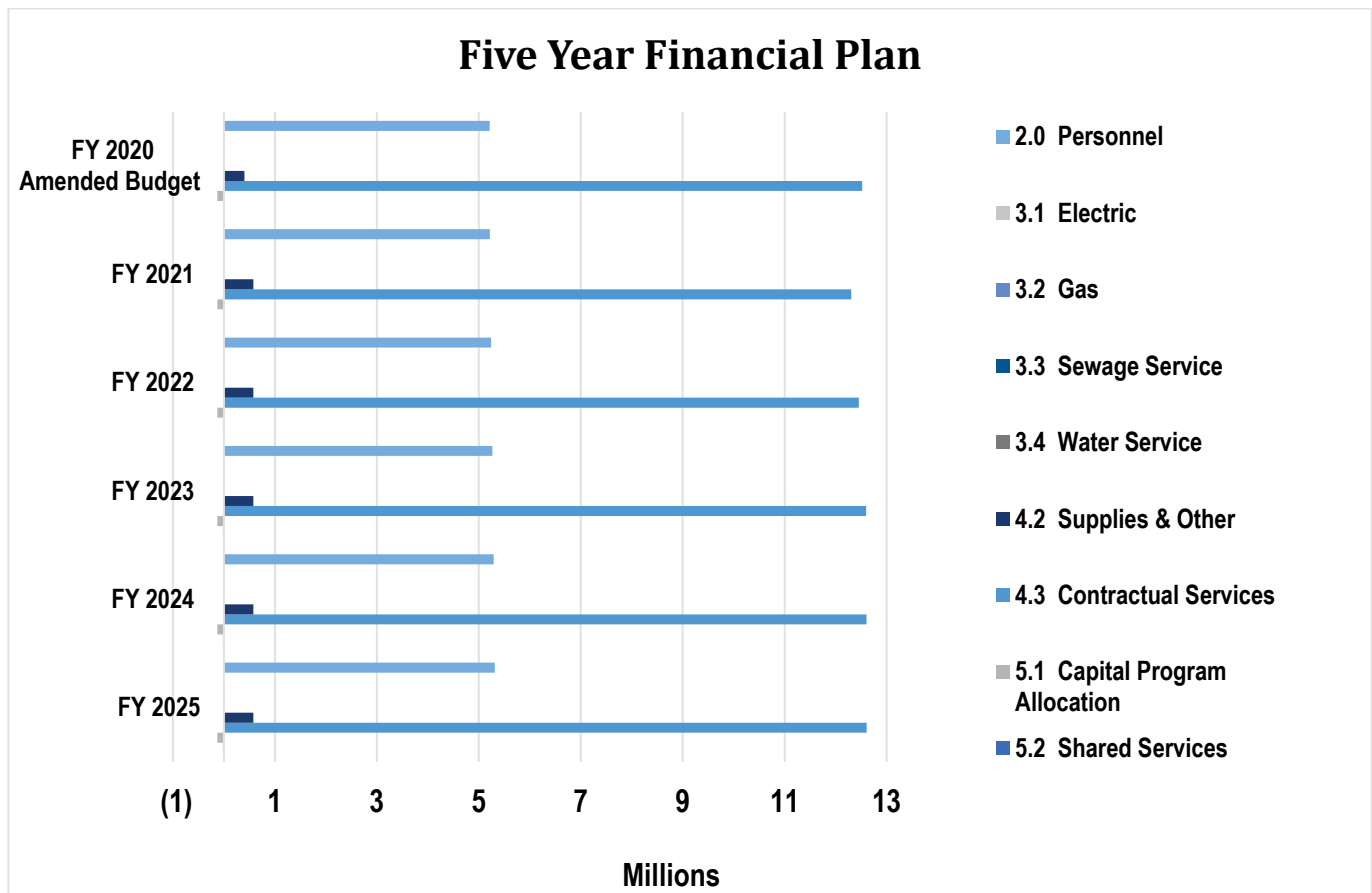
### *Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Field Service Operations	\$ 5,214,200	\$ 5,216,300	\$ 5,241,100	\$ 5,265,900	\$ 5,290,700	\$ 5,315,500

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 5,214,200	\$ 2,425,000	\$ 5,216,300	\$ 2,100	0.0%	\$ 5,241,100	\$ 5,265,900	\$ 5,290,700	\$ 5,315,500
4.2 Supplies & Other	402,700	219,700	578,200	175,500	43.6%	578,200	578,200	578,200	578,200
4.3 Contractual Services	12,521,300	4,566,000	12,308,100	(213,200)	-1.7%	12,453,900	12,599,900	12,604,100	12,608,500
5.1 Capital Program Allocation	(128,400)	-	(127,500)	900	-0.7%	(128,000)	(128,500)	(129,000)	(129,400)
5.2 Shared Services	(16,700)	(8,300)	(17,000)	(300)	1.8%	(17,400)	(17,700)	(18,000)	(18,300)
<b>Grand Total</b>	<b>\$ 17,993,100</b>	<b>\$ 7,202,400</b>	<b>\$ 17,958,100</b>	<b>\$ (35,000)</b>	<b>-0.2%</b>	<b>\$ 18,127,800</b>	<b>\$ 18,297,800</b>	<b>\$ 18,326,000</b>	<b>\$ 18,354,500</b>

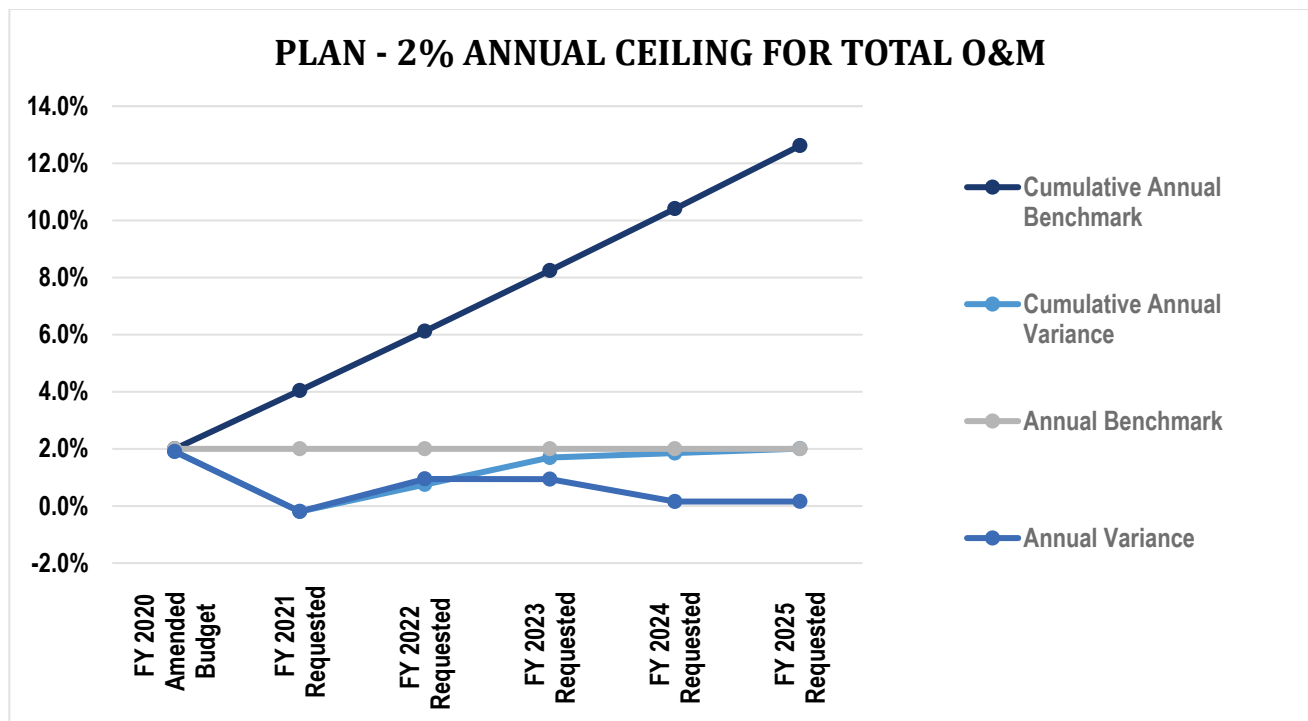


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Field Services	\$ 17,993,100	\$ 7,202,400	\$ 17,958,100	\$ (35,000)	-0.2%	\$ 18,127,800	\$ 18,297,800	\$ 18,326,000	\$ 18,354,500
<b>Grand Total</b>	<b>\$ 17,993,100</b>	<b>\$ 7,202,400</b>	<b>\$ 17,958,100</b>	<b>\$ (35,000)</b>	<b>-0.2%</b>	<b>\$ 18,127,800</b>	<b>\$ 18,297,800</b>	<b>\$ 18,326,000</b>	<b>\$ 18,354,500</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Field Service Operations Group's financial plan reflects a Five-Year Overall increase of 2.0% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).



## Capital Outlay

Field Service Operations five-year capital outlay is funded by the Improvement & Extension (I&E) budget.

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
Machinery & Equipment	-	50,000	50,000	50,000	50,000	50,000
Furniture & Fixtures	-	50,000	50,000	50,000	50,000	50,000
<b>Grand Total</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
<b>Grand Total</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>

### *Five-Year Capital Outlay Plan by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Field Service Operations	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000
<b>Grand Total</b>	<b>\$ -</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>	<b>\$ 50,000</b>

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget begins on the next page. The expenses are listed in report order by cost center. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882431 - Field Service Operations</b>	<b>16,729,500</b>	<b>17,993,100</b>	<b>7,202,400</b>	<b>17,958,100</b>	<b>18,127,800</b>	<b>18,297,800</b>	<b>18,326,000</b>	<b>18,354,500</b>
2.1 Salaries & Wages	2,906,200	3,561,900	1,552,100	3,584,500	3,584,500	3,584,500	3,584,500	3,584,500
2.2 Workforce Development	-	-	2,900	67,600	67,600	67,600	67,600	67,600
2.3 Overtime	375,900	431,000	220,000	275,000	275,000	275,000	275,000	275,000
2.4 Employee Benefits	1,175,300	1,221,300	650,000	1,289,200	1,314,000	1,338,800	1,363,600	1,388,400
4.2 Supplies & Other	637,900	402,700	219,700	578,200	578,200	578,200	578,200	578,200
Capital Outlay less than \$5,000	45,500	-	45,800	25,000	25,000	25,000	25,000	25,000
Employee Uniform Expense	34,500	27,500	14,600	37,500	37,500	37,500	37,500	37,500
Inspection and Permit Fees	7,200	12,700	3,200	10,000	10,000	10,000	10,000	10,000
Memberships, Licenses & Subscriptions	35,700	20,300	-	39,200	39,200	39,200	39,200	39,200
Mileage and Parking	600	8,000	-	1,000	1,000	1,000	1,000	1,000
Office Supplies	31,000	11,500	9,500	24,000	24,000	24,000	24,000	24,000
Operating Supplies	445,000	237,200	111,800	400,000	400,000	400,000	400,000	400,000
Penalties	3,500	-	-	-	-	-	-	-
Rentals-Miscellaneous	-	20,000	-	-	-	-	-	-
Repairs & Maintenance-Equipment	-	-	2,100	5,000	5,000	5,000	5,000	5,000
Training and Internal Meetings	26,100	50,000	16,600	25,000	25,000	25,000	25,000	25,000
Travel	7,400	12,500	15,600	10,000	10,000	10,000	10,000	10,000
Tuition Refund	1,400	3,000	500	1,500	1,500	1,500	1,500	1,500
4.3 Contractual Services	11,663,200	12,521,300	4,566,000	12,308,100	12,453,900	12,599,900	12,604,100	12,608,500
Contractual Operating Services	9,851,300	10,721,300	3,726,100	10,508,100	10,653,900	10,799,900	10,804,100	10,808,500
Contractual Professional Services	1,811,900	1,800,000	839,900	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
5.1 Capital Program Allocation	(600)	(128,400)	-	(127,500)	(128,000)	(128,500)	(129,000)	(129,400)
5.2 Shared Services	(28,400)	(16,700)	(8,300)	(17,000)	(17,400)	(17,700)	(18,000)	(18,300)
Shared Services : Salaries & Wages Reimb	(18,000)	(10,600)	(5,300)	(10,800)	(11,000)	(11,200)	(11,400)	(11,600)
Shared Services Reimbursement	(3,100)	(1,800)	(900)	(1,800)	(1,900)	(1,900)	(1,900)	(2,000)
Shared Services: Employee Benefit Reimb	(7,300)	(4,300)	(2,100)	(4,400)	(4,500)	(4,600)	(4,700)	(4,700)
<b>Grand Total</b>	<b>\$ 16,729,500</b>	<b>\$ 17,993,100</b>	<b>\$ 7,202,400</b>	<b>\$ 17,958,100</b>	<b>\$ 18,127,800</b>	<b>\$ 18,297,800</b>	<b>\$ 18,326,000</b>	<b>\$ 18,354,500</b>

## Highlights

The Energy, Research & Innovation Area strategic initiatives include the following.

### ❖ Advance the Energy Management Program

- Complete an Investment Grade Audit of the Water Resource Recovery Facility (WRRF) through Energy Service Contracting.
- Implement water system-wide a real-time asset intelligence software to optimize pumping strategies.
- Install additional electric metering equipment for tracking of energy consumption at a more granular level to establish a data platform from which energy optimization and reduction can be achieved.
- Implement energy reduction opportunities found through the participation in the State of Michigan's Wastewater Infrastructure Accelerator Program which is intended to accelerate a pathway toward sustainable infrastructure of the future.

### ❖ Pursue Designation of Utility of the Future

Conduct & coordinate research that moves the Water Resource Recovery Facility to a Utility of the Future, as described by the Water Environment Federation, National Association of Clean Water Agencies and Water Environment & Reuse Foundation.

### ❖ Pursue Research of Treatment & Monitoring

- Treatment techniques for emerging contaminants of concern.
- Innovative monitoring tools.

The table below shows how the energy, research and innovation area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Energy, Research & Innovation Strategic Initiatives	Advance Energy Management Program		x	x	x	x	x		x	x		
	Pursue Designation of Utility of the Future			X	x	x	x	x	x	x		
	Pursue Research of Treatment & Monitoring		x	x	x	x			x	x		x



### Energy, Research & Innovation Contracts:

The Energy, Research & Innovation budget contains several contractual services to assess the current innovation environment, create programs by tailoring them to the expectations, environment and resources of GLWA and launching the programs by establishing urgency and funding resources. Budgeted amounts beyond contract date are estimates for future study updates or subsequent implementation of a program. These services would generally require a separate procurement process. The following charts show the key contracts for these services.

Project Name	Wayne State University Project	Wayne State University Project	Wayne State University Projects	Michigan State University Project	Michigan State University Project	University of Michigan Project	University of Michigan Project	University of Michigan Projects	Total
Project Description	PFAS Health & Ecological Impacts	Microplastics & Human Health	Lake Huron to Lake Erie Monitoring Platform; Photocatalytic UV materials	Transport & Fate of Nutrients in Biosolids	Anaerobic Digestion	Smart Pipes	Biological Phosphorus Removal Pilot	Phosphorus & Oxygen Control; Collection System Optimization; Energy Data Warehouse	
Prime Consultant	WSU	WSU	WSU	MSU	MSU	Regents of the University of Michigan	Regents of the University of Michigan	Regents of the University of Michigan	
Contract #	1902151	1904710		1902059	GLWA-CS-217	1900902	1900169		
Contract Amount	\$192,153	\$195,000		\$227,498	\$355,800	\$299,702	\$250,000		
Contract End Date	07/01/21	12/31/21	TBD	07/31/21	03/16/20	08/01/21	05/31/21	TBD	
Pre-FY 2019 Spend	\$ -	\$ -	\$ -	\$ -	\$ 97,203	\$ -	\$ -	\$ 17,630	\$ 114,833
FY 2019 Actual	-	-	-	-	168,322	-	-	166,327	334,649
FY 2020 Budget	150,000	100,000	25,500	102,000	157,386	-	-	215,000	749,886
<b>FY 2021 Requested</b>	<b>96,000</b>	<b>85,000</b>	<b>260,000</b>	<b>114,000</b>	<b>130,000</b>	<b>150,000</b>	<b>125,000</b>	<b>100,000</b>	<b>1,060,000</b>
FY 2022 Requested	96,000	100,000	247,000	114,000	-	150,000	125,000	250,000	1,082,000
FY 2023 Requested	10,000	-	243,000	-	-	-	-	400,000	653,000
FY 2024 Requested	-	150,000	249,000	-	-	175,000	-	400,000	974,000
FY 2025 Requested	36,000	-	260,000	-	-	175,000	-	250,000	721,000
<b>Subtotal</b>	<b>\$ 388,000</b>	<b>\$ 435,000</b>	<b>\$ 1,284,500</b>	<b>\$ 330,000</b>	<b>\$ 552,911</b>	<b>\$ 650,000</b>	<b>\$ 250,000</b>	<b>\$ 1,798,957</b>	<b>\$ 5,689,368</b>

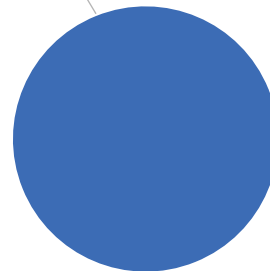
Project Name	PFAS Project	WRRF Project	WRRF Project	Water Treatment Plants Project	Isle Utilities Project	Other Project	Other Project	Other Projects	Total
Project Description	PFAS in biosolids	Grit investigation & assessment	Pilot Plant BOD	Water Works Park Pilot Plant Rebuild	TAG platform for GLWA member partners	Aeration Optimization	Assessing PCCP pipes	Remote online monitoring & sensing; Tariff Review; Power Quality feasibility trials	
Prime Consultant	TBD	Hazen Sawyer	AECOM Great Lakes Inc	TBD	Isle Inc.	Mike Stenstrom	HDR	TBD	
Contract #		1903684	CS-272 Task 7		1904820				
Contract Amount		\$49,890	\$1,043,484		\$115,000				
Contract End Date	TBD	03/31/20	05/19/23	TBD	12/01/20	TBD	TBD	TBD	
Pre-FY 2019 Spend	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
FY 2019 Actual	-	-	-	-	-	-	-	-	-
FY 2020 Budget	-	-	-	-	-	-	-	-	-
<b>FY 2021 Requested</b>	<b>-</b>	<b>75,000</b>	<b>50,000</b>	<b>-</b>	<b>115,000</b>	<b>50,000</b>	<b>50,000</b>	<b>100,000</b>	<b>440,000</b>
FY 2022 Requested	-	200,000	-	-	118,000	75,000	25,000	-	418,000
FY 2023 Requested	150,000	200,000	-	250,000	122,000	-	75,000	50,000	847,000
FY 2024 Requested	150,000	-	-	250,000	126,000	-	-	-	526,000
FY 2025 Requested	150,000	-	-	250,000	129,000	-	-	250,000	779,000
<b>Subtotal</b>	<b>\$ 450,000</b>	<b>\$ 475,000</b>	<b>\$ 50,000</b>	<b>\$ 750,000</b>	<b>\$ 610,000</b>	<b>\$ 125,000</b>	<b>\$ 150,000</b>	<b>\$ 400,000</b>	<b>\$ 3,010,000</b>
<b>Total</b>	<b>\$ 838,000</b>	<b>\$ 910,000</b>	<b>\$ 1,334,500</b>	<b>\$ 1,080,000</b>	<b>\$ 1,162,911</b>	<b>\$ 775,000</b>	<b>\$ 400,000</b>	<b>\$ 2,198,957</b>	<b>\$ 8,699,368</b>

## Organization

The GLWA Energy, Research & Innovation Area will help identify key areas for collaboration across research programs, research coordination and priorities, and streamlining of energy management to enable the development of technology and promote innovation as well as economic growth.

### FY 2021 REQUEST BY TEAM

Energy, Research & Innovation  
 100%



## Expense Categories

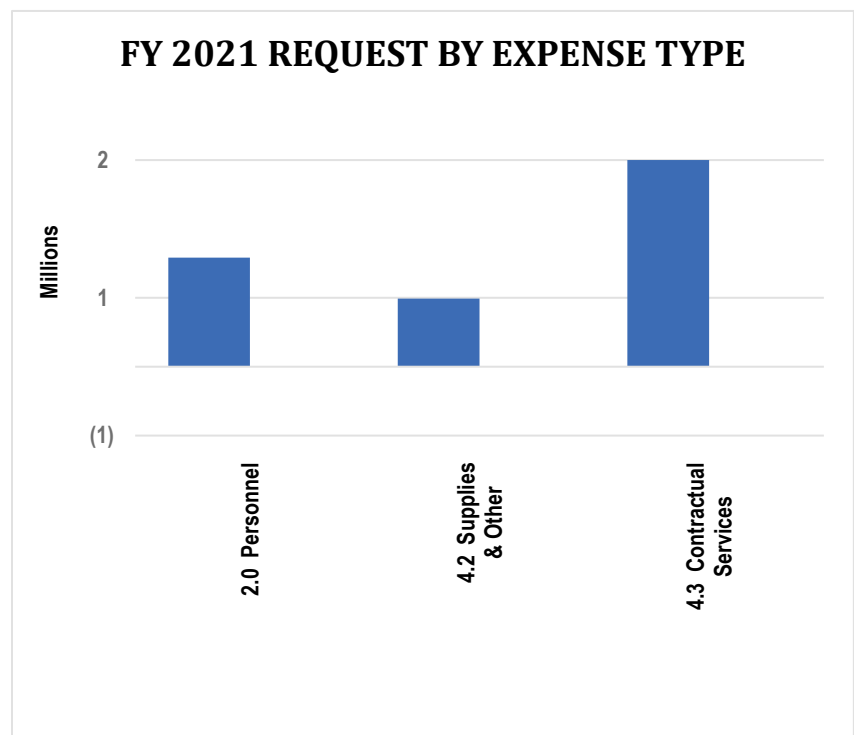
There are two major categories of Energy, Research & Innovation expenses in the Operations and Maintenance Budget as listed below.

- ❖ Contractual Services
- ❖ Personnel Costs

Contractual Services is the highest expense category for Energy, Research & Innovation. The level of contractual services reflects the decision to contract for services that will help to accomplish the following.

- Implement conservation measures
- Monitor energy consumption
- Assess business decisions for sustainability
- Coordinate research efforts to provide cost savings
- Identify and implement the latest advancements in managing water quality

The Energy, Research & Innovation Area is reaching a steady state in staffing. As a result of progress in staff placement, there has been a restructuring of current positions in order to accommodate the higher level of expertise required, to support the day to day operational decision-making needs, and to reduce the utilization of contracts. Accordingly, personnel costs are the second highest expense category.



## Biennial Budget Request

The biennial budget reflects an increase in FY 2021 as a result of the ramp up of the contractual services initiatives defined above.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 358,700	\$ 695,300	\$ 216,700	\$ 791,400	\$ 96,100	13.8%	\$ 794,600
4.2 Supplies & Other	435,600	456,300	60,600	494,100	37,800	8.3%	493,200
4.3 Contractual Services	1,058,100	952,200	334,300	1,500,000	547,800	57.5%	1,500,000
<b>Grand Total</b>	<b>\$ 1,852,400</b>	<b>\$ 2,103,800</b>	<b>\$ 611,600</b>	<b>\$ 2,785,500</b>	<b>\$ 681,700</b>	<b>32.4%</b>	<b>\$ 2,787,800</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Energy, Research & Innovation	\$ 1,852,400	\$ 2,103,800	\$ 611,600	\$ 2,785,500	\$ 681,700	32.4%	\$ 2,787,800
<b>Grand Total</b>	<b>\$ 1,852,400</b>	<b>\$ 2,103,800</b>	<b>\$ 611,600</b>	<b>\$ 2,785,500</b>	<b>\$ 681,700</b>	<b>32.4%</b>	<b>\$ 2,787,800</b>

## Personnel Budget

Energy, Research & Innovation personnel consists of six positions for FY 2021 and is largely comprised of staffing that will provide ongoing monitoring of developments in order to allow new research priorities to be set and phase out topics that are no longer relevant. Research and innovation are essential pillars of a promising future strategy for shaping energy supplies of tomorrow. The staffing level is in the tables below.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
Energy, Research & Innovation	6.00	6.00	6.00	6.00	6.00	6.00	6.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

*Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
Energy, Research & Innovation	6.00	6.00	6.00	6.00	6.00	6.00	6.00

*Personnel Budget* - The table below presents the Water Operations personnel budget which consists of the following expense categories: Salaries & Wages and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

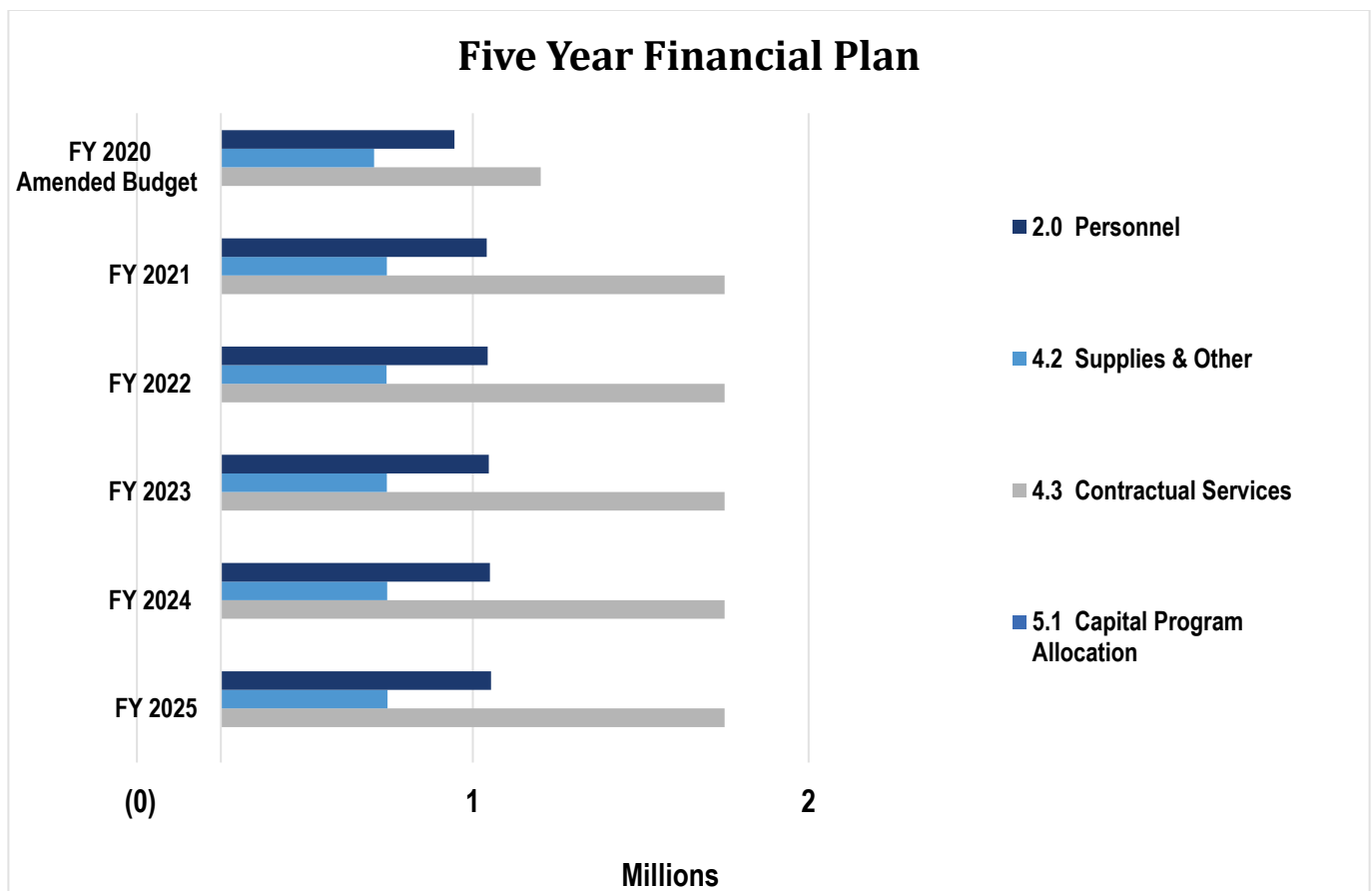
*Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Energy, Research & Innovation	\$ 695,300	\$ 791,400	\$ 794,600	\$ 797,800	\$ 801,000	\$ 804,300

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 695,300	\$ 216,700	\$ 791,400	\$ 96,100	13.8%	\$ 794,600	\$ 797,800	\$ 801,000	\$ 804,300
4.2 Supplies & Other	456,300	60,600	494,100	37,800	8.3%	493,200	494,300	495,300	496,300
4.3 Contractual Services	952,200	334,300	1,500,000	547,800	57.5%	1,500,000	1,500,000	1,500,000	1,500,000
<b>Grand Total</b>	<b>\$ 2,103,800</b>	<b>\$ 611,600</b>	<b>\$ 2,785,500</b>	<b>\$ 681,700</b>	<b>32.4%</b>	<b>\$ 2,787,800</b>	<b>\$ 2,792,100</b>	<b>\$ 2,796,300</b>	<b>\$ 2,800,600</b>

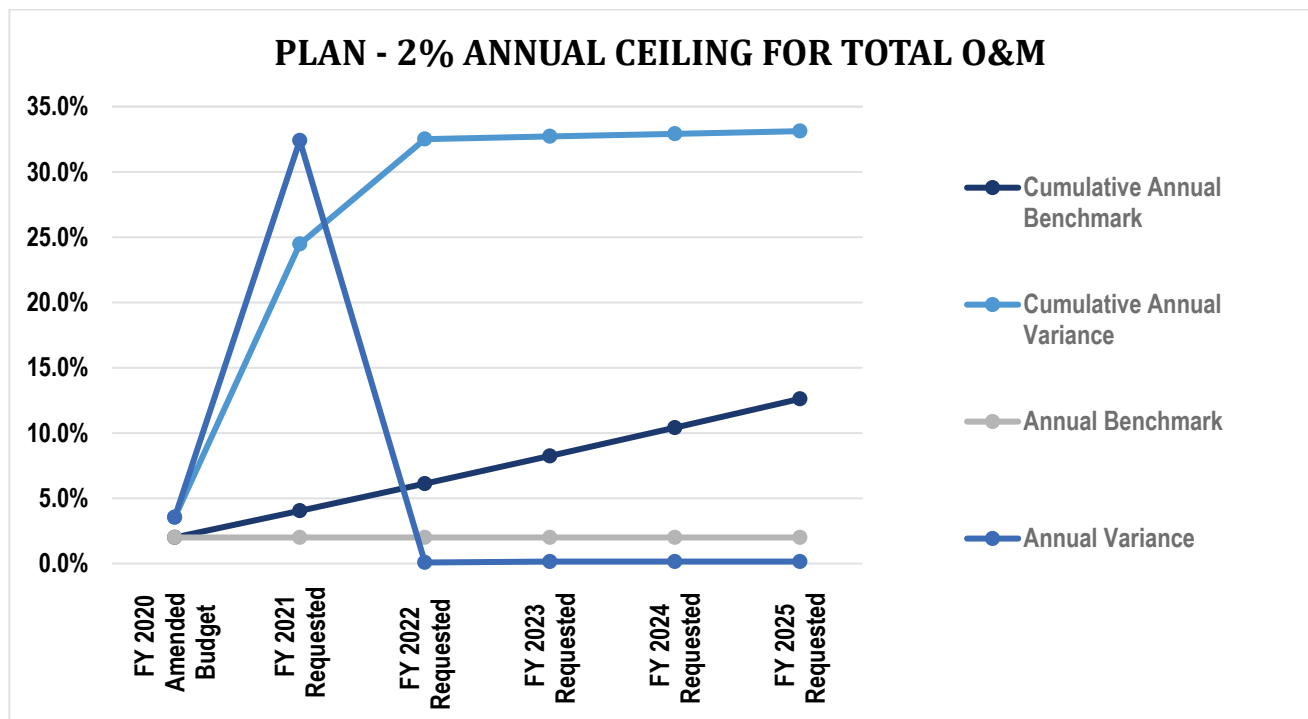


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Energy, Research & Innovation	\$ 2,103,800	\$ 611,600	\$ 2,785,500	\$ 681,700	32.4%	\$ 2,787,800	\$ 2,792,100	\$ 2,796,300	\$ 2,800,600
<b>Grand Total</b>	<b>\$ 2,103,800</b>	<b>\$ 611,600</b>	<b>\$ 2,785,500</b>	<b>\$ 681,700</b>	<b>32.4%</b>	<b>\$ 2,787,800</b>	<b>\$ 2,792,100</b>	<b>\$ 2,796,300</b>	<b>\$ 2,800,600</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Energy, Research & Innovation Group's financial plan reflects a Five-Year Overall increase of 33.1%. This increase is a result of the ramp up of the contractual services initiatives defined in the expense categories section which is above the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).





## Capital Outlay

Energy, Research & Innovations five-year capital outlay plan is funded by the Improvement & Extension (I&E) budget.

### *Five-Year Capital Outlay Plan by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ -	\$ 125,000	\$ -	\$ 75,000	\$ -	\$ 50,000
Machinery & Equipment	-	125,000	-	75,000	-	50,000
Controls & Communication	-	125,000	-	75,000	-	50,000
<b>Grand Total</b>	<b>\$ -</b>	<b>\$ 125,000</b>	<b>\$ -</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ -	\$ 125,000	\$ -	\$ 75,000	\$ -	\$ 50,000
<b>Grand Total</b>	<b>\$ -</b>	<b>\$ 125,000</b>	<b>\$ -</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>

### *Five-Year Capital Outlay Plan by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Energy, Research & Innovation	\$ -	\$ 125,000	\$ -	\$ 75,000	\$ -	\$ 50,000
<b>Grand Total</b>	<b>\$ -</b>	<b>\$ 125,000</b>	<b>\$ -</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ 50,000</b>

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget is below. The expenses are listed in report order by cost center. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>882501 - Energy, Research &amp; Innovation</b>	<b>1,852,400</b>	<b>2,103,800</b>	<b>611,600</b>	<b>2,785,500</b>	<b>2,787,800</b>	<b>2,792,100</b>	<b>2,796,300</b>	<b>2,800,600</b>
2.1 Salaries & Wages	300,100	542,500	179,100	623,500	623,500	623,500	623,500	623,500
2.4 Employee Benefits	58,600	152,800	37,600	167,900	171,100	174,300	177,500	180,800
4.2 Supplies & Other	435,600	456,300	60,600	494,100	493,200	494,300	495,300	496,300
Capital Outlay less than \$5,000	-	-	9,600	2,000	-	-	-	-
Memberships, Licenses & Subscriptions	410,000	438,400	1,100	423,000	423,100	423,100	423,100	423,100
Mileage and Parking	2,600	1,500	1,500	2,000	2,000	2,000	2,000	2,000
Office Supplies	6,600	-	3,900	7,100	7,100	7,100	7,100	7,100
Operating Supplies	3,400	5,000	24,400	25,000	25,000	25,100	25,100	25,100
Training and Internal Meetings	3,500	4,500	7,800	20,000	20,000	20,000	20,000	20,000
Travel	9,500	6,900	12,300	15,000	16,000	17,000	18,000	19,000
<b>4.3 Contractual Services</b>	<b>1,058,100</b>	<b>952,200</b>	<b>334,300</b>	<b>1,500,000</b>	<b>1,500,000</b>	<b>1,500,000</b>	<b>1,500,000</b>	<b>1,500,000</b>
Contractual Professional Services	1,058,100	952,200	334,300	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000
<b>Grand Total</b>	<b>\$ 1,852,400</b>	<b>\$ 2,103,800</b>	<b>\$ 611,600</b>	<b>\$ 2,785,500</b>	<b>\$ 2,787,800</b>	<b>\$ 2,792,100</b>	<b>\$ 2,796,300</b>	<b>\$ 2,800,600</b>

## Highlights

### **The Information Technology Group is leading GLWA in several strategic initiatives.**

#### ❖ **Shared Services**

The dollar amount of shared services reimbursement from DWSD significantly decreases over the five-year plan. This is consistent with a long-term plan for DWSD to separate from GLWA systems. The decrease in service to DWSD shifts resources to an increased focus on growing demands for GLWA's IT services. There are some shared services that are expected to continue beyond the originally estimated end date of June 2021 including Print Shop Services and the Security Network.

#### ❖ **Data Center Modernization**

A three-year roadmap has been created to mitigate risks and provide infrastructure resiliency by building a sustainable, secure, compliant, robust, and reliable IT infrastructure as the foundation to support GLWA's core enterprise technology needs.

#### ❖ **Enterprise Resource Planning (ERP)**

As the organization matures, the current Human Resources (HR) and Finance systems (Ceridian & BS&A) that were implemented during the bifurcation no longer meet our growing needs. A new ERP will replace these systems and fully integrate HR, Finance, Procurement and reporting functions across the Enterprise. This system will leverage best practices to increase efficiency and effectiveness in reporting and operations. It will also ensure the proper controls and procedures are followed.

#### ❖ **Enterprise Asset Management (EAM)**

The current EAM (WAM) system is on extended support from the vendor (Oracle) and no longer meets the growing needs of our organization. GLWA will implement a new EAM to support enterprise asset management operations using improved technology platforms. The system will streamline work for maintenance technicians, add mobility for field workers, and help to achieve the goals set forth in the Strategic Asset Management Plan (SAMP).

The table on the following page shows how the information technology group strategic initiatives relate to the organizational strategic goals.

Information Technology Strategic Initiatives	Organizational Strategic Goals										
	Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
	Shared Services			X	X	X	X		X		X
	Data Center Modernization			X	X	X					
	Enterprise Resource Planning (ERP)		X	X	X	X					
	Enterprise Asset Management (EAM)		X	X	X	X					

## Information Technology Contracts

The Information Technology (IT) budget contains most IT-related costs used throughout GLWA. This includes IT staffing, software licensing services, fees for cloud-based solutions, hardware and software maintenance, contracted services and project management for the deployment of upgraded and new technology. The largest expense category is Telecom, Managed Security & Network Services, due to an annual contract with AT&T who owns, operates, updates, and maintain the wide area network, local area network, phone services, Internet, and managed network security. In the chart below are the key contracts for these services.

Information Technology Centralized Service	Telecom, Managed Security & Networks 626700	Telecom, Managed Security & Networks 626700	Disaster Recovery Services 617900	Professional Services 617400	Professional Services 617400	Professional Services 617400	Repairs & Maintenance - Software 62302	Professional Services 617400	Professional Services 617400	Total
Prime Consultant	AT&T	Verizon	Disaster Recovery	ERP PM Services	GIS Strategic Services	Staff Augmentation	EAM Subscription	DXC - WAM	Ceridian Human Resources Information Systems (HRIS)	
Contract #	CS-1689	1801674	TBD	TBD	1901592	CS - 071	TBD	CS-119	1803978	
Contract Amount	\$ 60,000,000	\$ 500,000	TBD	TBD	TBD	\$ 4,114,800	TBD	\$ 7,000,000	\$ 3,217,779	\$ 75,370,409
Contract End Date	TBD	TBD	TBD	TBD	TBD	TBD	TBD	06/30/22	TBD	
Cost Center Name	Infrastructure	IT Service Delivery	Infrastructure	IT Project Management	IT Enterprise Applications	Various	IT Enterprise Applications	IT Business Applications	IT Business Applications	
FY 2018 Spend	\$ 10,272,962	\$ 562,000	\$ -	\$ -	\$ 333,771	\$ -	\$ -	\$ 1,896,426	\$ -	\$ 13,065,159
FY 2018 Budget	12,000,000	384,000	400,000	-	418,400	135,966	-	2,847,416	-	16,185,782
FY 2019 Budget	12,000,000	402,000	400,000	-	418,400	112,266	-	2,972,416	700,000	17,005,082
FY 2020 Requested	12,000,000	420,000	400,000	333,234	720,000	298,266	-	3,400,000	700,000	18,271,500
FY 2021 Requested	12,000,000	424,200	400,000	369,898	720,000	296,166	1,500,000	3,400,000	700,000	19,810,264
FY 2022 Requested	12,000,000	432,700	400,000	346,696	720,000	299,306	1,500,000	3,400,000	700,000	19,798,702
FY 2023 Requested	12,000,000	441,300	400,000	353,630	800,000	299,306	1,500,000	-	700,000	16,494,236
FY 2024 Requested	12,000,000	450,200	400,000	360,703	800,000	299,306	1,500,000	-	700,000	16,510,209
FY 2025 Requested	12,000,000	450,200	400,000	360,703	800,000	299,306	1,500,000	-	700,000	16,510,209
<b>Total</b>	<b>\$ 106,272,962</b>	<b>\$ 3,966,600</b>	<b>\$ 3,200,000</b>	<b>\$ 2,124,864</b>	<b>\$ 5,730,571</b>	<b>\$ 2,039,888</b>	<b>\$ 7,500,000</b>	<b>\$ 17,916,258</b>	<b>\$ 4,900,000</b>	<b>\$ 153,651,143</b>

## Organization

The GLWA Information Technology (IT) Group consists of seven teams. In FY 2020, IT conducted a reorganization and changed two cost center names. Enterprise Applications changed their name to Business Productivity Systems and Business Applications changed their name to Enterprise Asset Management Systems.

### ❖ Office of the Chief Information Officer

Provides administration and oversight for the entire IT operational area.

### ❖ Project Management Office

Fosters collaboration, support and oversees the execution of technology initiatives.

### ❖ Security & Risk

The Information Technology Security & Risk team is responsible for deploying security solutions and monitoring our network, systems, and users to keep us safe from cyberthreats.

### ❖ Infrastructure

Manages all local and wide-area networking applications throughout GLWA.

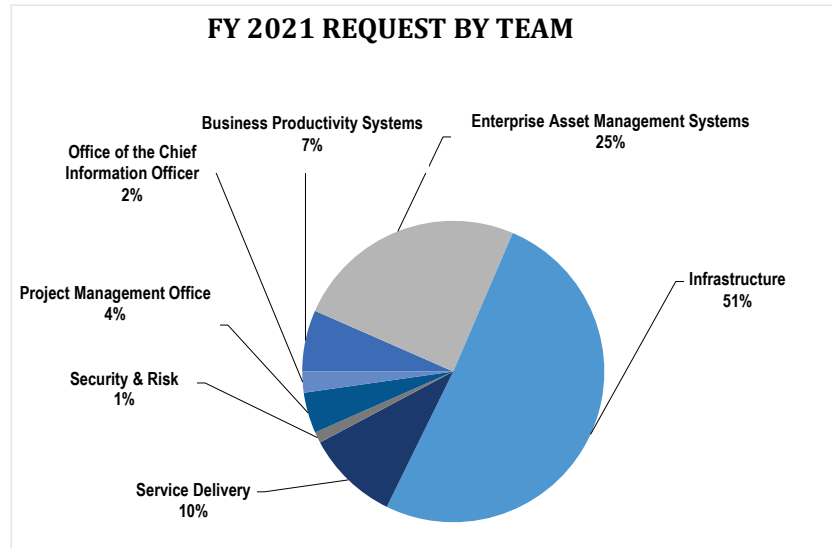
### ❖ Enterprise Asset Management Systems

The Enterprise Asset Management Systems (EAMS) team is responsible for acquiring, implementing and managing all asset management-related software which supports operation, maintenance, and capital planning of GLWA's assets. There are three application teams in EAMS: Business Intelligence (BI), Geographic Information System (GIS), and Enterprise Asset Management (EAM).

### ❖ Business Productivity Systems

The Business Productivity Systems team manages all customer-facing applications common to all team members such as email, office automation, and document management.

### ❖ Customer Service Delivery – Provides frontline support to all team members and staffs via the GLWA help desk.

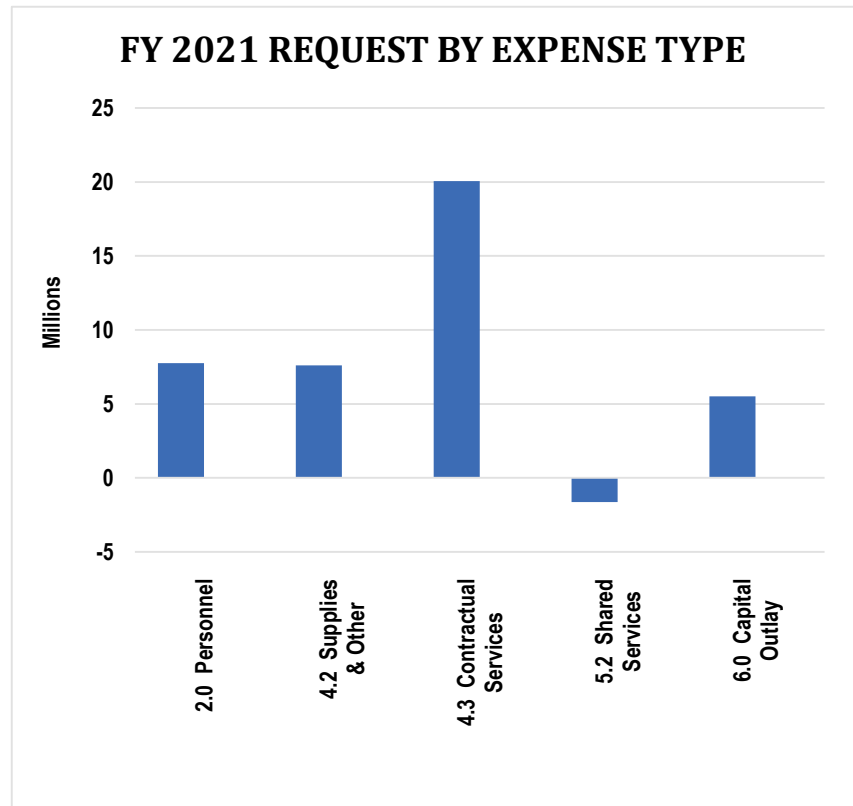


## Expense Categories

There are five major categories of Information Technology expenses in the Operations and Maintenance Budget as listed below.

- ❖ Personnel
- ❖ Supplies & Other
- ❖ Contractual Services
- ❖ Shared Services
- ❖ Capital Outlay

Contractual Services is the highest expense category for FY 2021. Included in this account are the budgets for ERP PM Services, Telecom Managed Security & Network Services and the launch of the GIS Professional Services for Improvement Projects.



## Biennial Budget Request

The biennial budget reflects an overall 8.8 percent increase in FY 2021. Key factors that impact FY2021 include the following.

- ❖ The supplies & other account is increasing \$794,300 in FY 2021 for the Enterprise Asset Management (EAM) subscription and ongoing Innovyze licensing and support.
- ❖ The contractual services account is decreasing \$110,700 due to the revaluation in IT strategic planning.
- ❖ The shared service reimbursements will decrease \$1,588,100 due to DWSD canceling services with GLWA as it continues to integrate its systems with the City of Detroit.
- ❖ The capital outlay will increase \$662,800 for Oracle Database and WAM licenses.

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 5,977,100	\$ 7,550,800	\$ 3,321,000	\$ 7,761,300	\$ 210,500	2.8%	\$ 7,794,800
4.2 Supplies & Other	6,238,700	6,868,500	\$ 2,650,500	7,662,800	794,300	11.6%	7,138,800
4.3 Contractual Services	16,904,500	20,180,000	\$ 10,632,100	20,069,300	(110,700)	-0.5%	19,808,500
5.2 Shared Services	(5,409,100)	(3,608,100)	\$ (1,969,100)	(2,020,000)	1,588,100	-44.0%	(357,000)
6.0 Capital Outlay	2,249,100	4,840,500	\$ 2,310,900	5,503,300	662,800	13.7%	5,998,800
<b>Grand Total</b>	<b>\$ 25,960,300</b>	<b>\$ 35,831,700</b>	<b>\$ 16,945,400</b>	<b>\$ 38,976,700</b>	<b>\$ 3,145,000</b>	<b>8.8%</b>	<b>\$ 40,383,900</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Information Technology</b>	<b>\$ 25,960,300</b>	<b>\$ 35,831,700</b>	<b>\$ 16,945,400</b>	<b>\$ 38,976,700</b>	<b>\$ 3,145,000</b>	<b>8.8%</b>	<b>\$ 40,383,900</b>
Enterprise Asset Management Systems	\$ 5,371,300	\$ 5,623,900	\$ 2,459,500	\$ 9,685,800	\$ 4,061,900	72.2%	\$ 9,811,200
Business Productivity Systems	635,900	3,966,200	979,400	2,570,600	(1,395,600)	-35.2%	2,139,600
Infrastructure	14,779,500	19,432,400	11,169,800	19,802,900	370,500	1.9%	21,443,400
Security & Risk	223,500	403,200	129,500	459,800	56,600	14.0%	462,100
Service Delivery	3,123,300	3,807,700	1,122,200	3,875,200	67,500	1.8%	3,928,700
Project Management Office	1,164,000	1,622,600	672,300	1,704,200	81,600	5.0%	1,716,700
Office of the CIO	662,800	975,700	412,700	878,200	(97,500)	-10.0%	882,200
<b>Grand Total</b>	<b>\$ 25,960,300</b>	<b>\$ 35,831,700</b>	<b>\$ 16,945,400</b>	<b>\$ 38,976,700</b>	<b>\$ 3,145,000</b>	<b>8.8%</b>	<b>\$ 40,383,900</b>

### **Personnel Budget**

Information Technology personnel consists of 71 positions for FY 2021, which is staying consistent with FY 2020 staffing level.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

#### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Information Technology</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>
Office of the CIO	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Project Management Office	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Service Delivery	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Infrastructure	13.00	13.00	13.00	13.00	13.00	13.00	13.00
Enterprise Asset Management Systems	13.00	13.00	10.00	10.00	10.00	10.00	10.00
Business Productivity Systems	13.00	13.00	16.00	16.00	16.00	16.00	16.00
Security & Risk	3.00	3.00	3.00	3.00	3.00	3.00	3.00

*Full-time Equivalent*s - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.



*Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Information Technology</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>	<b>71.00</b>
Office of the CIO	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Project Management Office	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Service Delivery	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Infrastructure	13.00	13.00	13.00	13.00	13.00	13.00	13.00
Enterprise Asset Management							
Systems	13.00	13.00	10.00	10.00	10.00	10.00	10.00
Business Productivity Systems	13.00	13.00	16.00	16.00	16.00	16.00	16.00
Security & Risk	3.00	3.00	3.00	3.00	3.00	3.00	3.00

*Personnel Budget* - The table below presents the Information Technology personnel budget which consists of the following expense categories: Salaries & Wages, Overtime and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

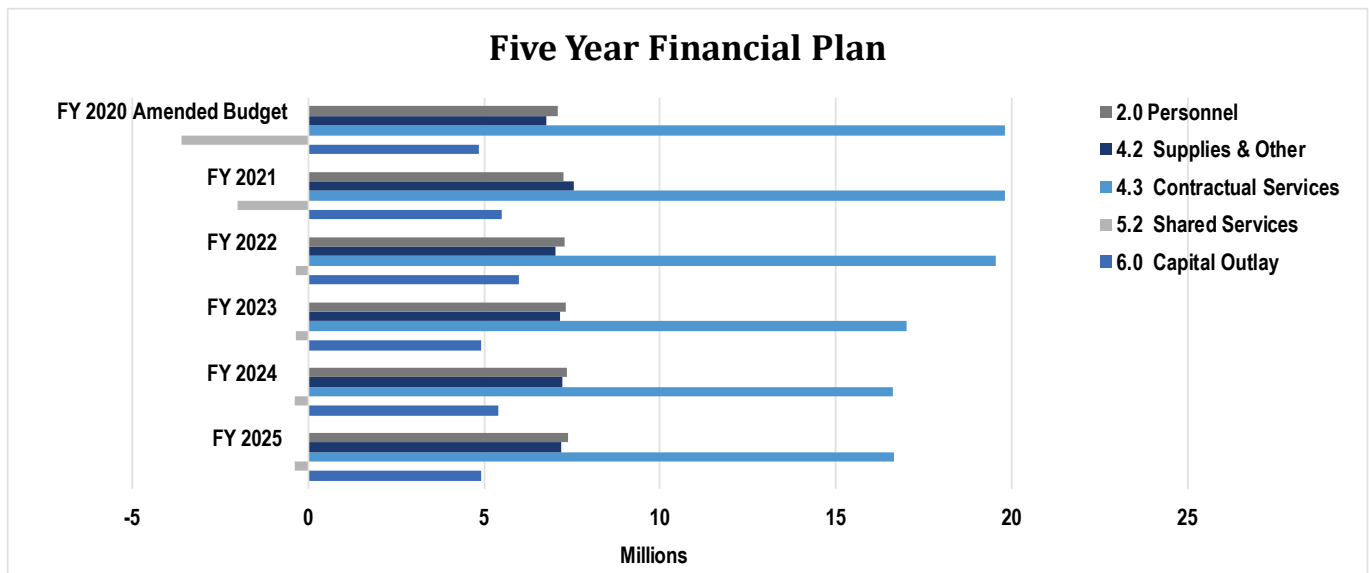
*Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Office of the CIO	\$ 470,400	\$ 508,100	\$ 510,200	\$ 512,300	\$ 514,400	\$ 516,500
Project Management Office	1,273,500	1,288,200	1,293,500	1,298,800	1,304,100	1,309,400
Service Delivery	1,208,300	1,227,000	1,232,800	1,238,600	1,244,300	1,250,100
Infrastructure	1,359,000	1,388,600	1,394,600	1,400,600	1,406,600	1,412,600
Enterprise Asset Management						
Systems	1,473,700	1,175,000	1,179,900	1,184,900	1,189,800	1,194,700
Business Productivity Systems	1,397,600	1,781,200	1,788,900	1,796,500	1,804,100	1,811,700
Security & Risk	368,300	393,200	394,900	396,500	398,100	399,700
<b>Grand Total</b>	<b>\$ 7,550,800</b>	<b>\$ 7,761,300</b>	<b>\$ 7,794,800</b>	<b>\$ 7,828,200</b>	<b>\$ 7,861,400</b>	<b>\$ 7,894,700</b>

## Five-Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 7,550,800	\$ 3,321,000	\$ 7,761,300	\$ 210,500	2.8%	\$ 7,794,800	\$ 7,828,200	\$ 7,861,400	\$ 7,894,700
4.2 Supplies & Other	6,868,500	2,650,500	7,662,800	794,300	11.6%	7,138,800	7,283,100	7,351,800	7,316,400
4.3 Contractual Services	20,180,000	10,632,100	20,069,300	(110,700)	-0.5%	19,808,500	17,272,000	16,880,300	16,893,500
5.2 Shared Services	(3,608,100)	(1,969,100)	(2,020,000)	1,588,100	-44.0%	(357,000)	(364,200)	(371,500)	(379,000)
6.0 Capital Outlay	4,840,500	2,310,900	5,503,300	662,800	13.7%	5,998,800	4,906,500	5,406,500	4,930,000
<b>Grand Total</b>	<b>\$ 35,831,700</b>	<b>\$ 16,945,400</b>	<b>\$ 38,976,700</b>	<b>\$ 3,145,000</b>	<b>8.8%</b>	<b>\$ 40,383,900</b>	<b>\$ 36,925,600</b>	<b>\$ 37,128,500</b>	<b>\$ 36,655,600</b>

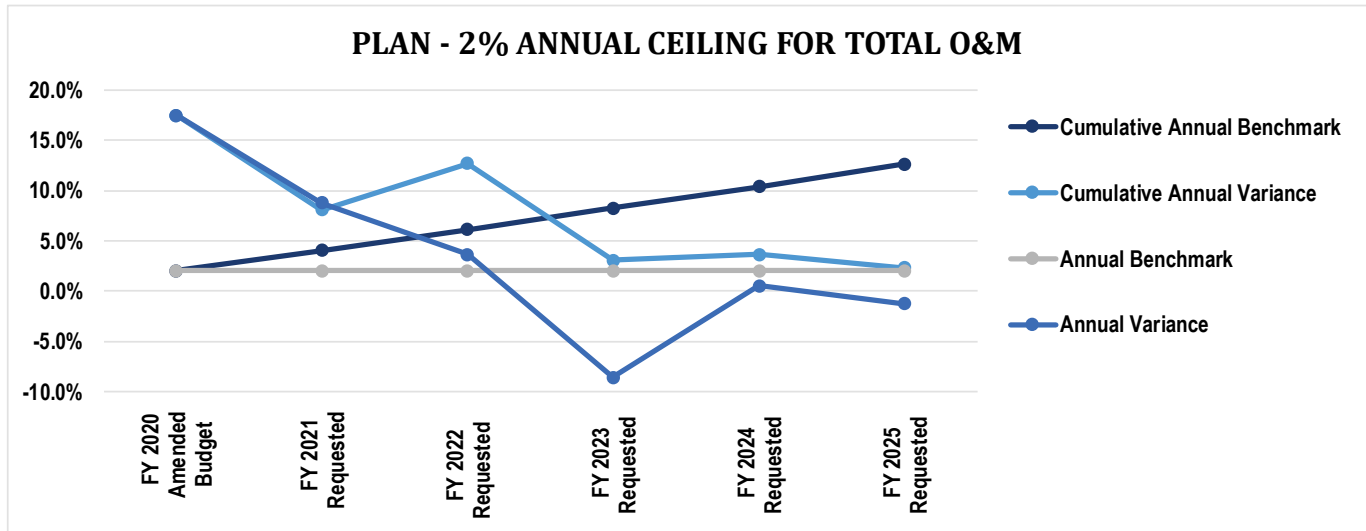


### Five-Year Biennial Budget Request by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Enterprise Asset Management Systems	\$ 5,623,900	\$ 2,459,500	\$ 9,685,800	\$ 4,061,900	72.2%	\$ 9,811,200	\$ 6,516,600	\$ 6,128,400	\$ 6,140,200
Business Productivity Systems	3,966,200	979,400	2,570,600	(1,395,600)	-35.2%	2,139,600	2,152,700	2,145,800	2,163,200
Infrastructure	19,432,400	11,169,800	19,802,900	370,500	1.9%	21,443,400	21,182,000	21,675,400	21,156,500
Security & Risk	403,200	129,500	459,800	56,600	14.0%	462,100	464,300	466,500	468,600
Service Delivery	3,807,700	1,122,200	3,875,200	67,500	1.8%	3,928,700	3,994,500	4,080,300	4,085,600
Project Management Office	1,622,600	672,300	1,704,200	81,600	5.0%	1,716,700	1,729,300	1,742,000	1,747,700
Office of the CIO	975,700	412,700	878,200	(97,500)	-10.0%	882,200	886,200	890,100	893,800
<b>Grand Total</b>	<b>\$ 35,831,700</b>	<b>\$ 16,945,400</b>	<b>\$ 38,976,700</b>	<b>\$ 3,145,000</b>	<b>8.8%</b>	<b>\$ 40,383,900</b>	<b>\$ 36,925,600</b>	<b>\$ 37,128,500</b>	<b>\$ 36,655,600</b>

### Alignment with Entity-wide Annual O&M Ceiling Goal of 2%

The IT financial plan reflects a five-year overall increase of 2.3% which is well within the entity-wide goal is a cumulative ceiling of no more than 12.6% for planning purposes based upon an annual 2% adjustment.



### Capital Outlay

Information Technology five-year capital outlay plan is funded by both the Improvements & Extension budget and the Operations & Maintenance budget.

#### Five-Year Capital Outlay Plan by Asset Category

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Operations &amp; Maintenance</b>	<b>\$ 4,840,500</b>	<b>\$ 5,503,254</b>	<b>\$ 5,998,775</b>	<b>\$ 4,906,500</b>	<b>\$ 5,406,500</b>	<b>\$ 4,930,000</b>
Data/Network	2,000,034	2,000,018	2,000,000	2,000,000	2,000,000	2,000,000
Hardware	356,000	356,860	359,000	361,500	364,000	364,000
Software	2,484,466	3,146,376	3,639,775	2,545,000	3,042,500	2,566,000
<b>Improvement &amp; Extension</b>	<b>7,500,000</b>	<b>12,750,000</b>	<b>12,750,000</b>	<b>-</b>	<b>-</b>	<b>-</b>
Hardware	5,500,000	6,750,000	6,750,000	-	-	-
Leasehold Improvements, Computers & IT, Furniture & Fixtures	2,000,000	2,000,000	2,000,000	-	-	-
Software	-	4,000,000	4,000,000	-	-	-
<b>Grand Total</b>	<b>\$ 12,340,500</b>	<b>\$ 18,253,254</b>	<b>\$ 18,748,775</b>	<b>\$ 4,906,500</b>	<b>\$ 5,406,500</b>	<b>\$ 4,930,000</b>

### *Five-Year Capital Outlay Plan by Funding Source*

<b>Funding Source</b>	<b>FY 2020 Amended Budget</b>	<b>FY 2021 Department Requested</b>	<b>FY 2022 Department Requested</b>	<b>FY 2023 Department Requested</b>	<b>FY 2024 Department Requested</b>	<b>FY 2025 Department Requested</b>
Operations & Maintenance	\$ 4,840,500	\$ 5,503,300	\$ 5,998,800	\$ 4,906,500	\$ 5,406,500	\$ 4,930,000
Improvement & Extension	7,500,000	12,750,000	12,750,000	-	-	-
<b>Grand Total</b>	<b>\$ 12,340,500</b>	<b>\$ 18,253,300</b>	<b>\$ 18,748,800</b>	<b>\$ 4,906,500</b>	<b>\$ 5,406,500</b>	<b>\$ 4,930,000</b>

### *Five-Year Capital Outlay Plan by Team*

<b>Team</b>	<b>FY 2020 Amended Budget</b>	<b>FY 2021 Department Requested</b>	<b>FY 2022 Department Requested</b>	<b>FY 2023 Department Requested</b>	<b>FY 2024 Department Requested</b>	<b>FY 2025 Department Requested</b>
Service Delivery	\$ 370,100	\$ 494,000	\$ 501,000	\$ 505,000	\$ 508,000	\$ 512,000
Technology Infrastructure	5,741,800	5,313,800	5,788,100	3,362,500	3,859,000	3,378,000
Business Productivity Systems	616,100	4,050,000	4,050,000	50,000	50,000	50,000
Enterprise Asset Management						
Sytems	5,550,000	8,332,500	8,346,200	925,000	925,000	925,000
Security & Risks	62,500	63,000	63,500	64,000	64,500	65,000
<b>Grand Total</b>	<b>\$ 12,340,500</b>	<b>\$ 18,253,300</b>	<b>\$ 18,748,800</b>	<b>\$ 4,906,500</b>	<b>\$ 5,406,500</b>	<b>\$ 4,930,000</b>

### **Line Item Budget and Plan**

The Information Technology five-year plan with a line item expense budget begins on the next page. Because of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations. The expenses are listed in order by cost center.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>883301 - Office of the CIO</b>	<b>\$ 662,800</b>	<b>\$ 975,700</b>	<b>\$ 412,700</b>	<b>\$ 878,200</b>	<b>\$ 882,200</b>	<b>\$ 886,200</b>	<b>\$ 890,100</b>	<b>\$ 893,800</b>
2.1 Salaries & Wages	385,600	369,200	199,500	399,300	399,300	399,300	399,300	399,300
2.3 Overtime	1,200	-	-	-	-	-	-	-
2.4 Employee Benefits	89,300	101,200	48,100	108,800	110,900	113,000	115,100	117,200
4.2 Supplies & Other	126,700	116,300	27,200	120,100	122,000	123,900	125,700	127,300
Memberships, Licenses & Subscriptions	42,300	26,500	4,700	28,600	28,600	28,600	28,600	28,600
Mileage and Parking	100	-	-	-	-	-	-	-
Office Supplies	56,800	71,400	17,400	72,800	74,300	75,800	77,300	78,800
Operating Supplies	500	-	-	-	-	-	-	-
Training and Internal Meetings	19,800	8,200	1,300	8,300	8,500	8,700	8,800	8,900
Travel	6,800	10,200	3,800	10,400	10,600	10,800	11,000	11,000
Tuition Refund	400	-	-	-	-	-	-	-
4.3 Contractual Services	60,000	389,000	120,700	250,000	250,000	250,000	250,000	250,000
Contract Services-Information Technology	60,000	389,000	120,700	250,000	250,000	250,000	250,000	250,000
<b>6.0 Capital Outlay over \$5k(O&amp;M Noncapitalized)</b>	<b>-</b>	<b>-</b>	<b>17,200</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>883311 Project Management Office</b>	<b>1,164,000</b>	<b>1,622,600</b>	<b>672,300</b>	<b>1,704,200</b>	<b>1,716,700</b>	<b>1,729,300</b>	<b>1,742,000</b>	<b>1,747,700</b>
2.1 Salaries & Wages	933,600	1,005,300	531,700	1,013,300	1,013,300	1,013,300	1,013,300	1,013,300
2.4 Employee Benefits	195,400	268,200	129,600	274,900	280,200	285,500	290,800	296,100
4.2 Supplies & Other	34,300	15,900	10,800	76,100	76,500	76,900	77,200	77,600
Memberships, Licenses & Subscriptions	500	1,600	800	1,600	1,700	1,700	1,700	1,700
Mileage and Parking	300	-	-	-	-	-	-	-
Repairs & Maintenance-Software	7,500	-	-	60,000	60,000	60,000	60,000	60,000
Training and Internal Meetings	20,600	13,500	4,700	13,700	14,000	14,300	14,600	15,000
Travel	5,400	800	5,300	800	800	900	900	900
4.3 Contractual Services	700	333,200	200	339,900	346,700	353,600	360,700	360,700
Contract Services-Information Technology	-	333,200	-	339,900	346,700	353,600	360,700	360,700
Contractual Operating Services	700	-	200	-	-	-	-	-
<b>883321 - Service Delivery</b>	<b>3,123,300</b>	<b>3,807,700</b>	<b>1,122,200</b>	<b>3,875,200</b>	<b>3,928,700</b>	<b>3,994,500</b>	<b>4,080,300</b>	<b>4,085,600</b>
2.1 Salaries & Wages	699,600	914,500	419,100	925,800	925,800	925,800	925,800	925,800
2.3 Overtime	1,400	-	100	-	-	-	-	-
2.4 Employee Benefits	258,800	293,300	171,400	301,200	307,000	312,800	318,500	324,300
4.2 Supplies & Other	1,519,500	1,809,800	444,300	1,730,000	1,762,200	1,809,600	1,877,800	1,871,500
Memberships, Licenses & Subscriptions	29,000	5,100	3,000	5,200	5,300	5,400	5,500	5,600
Printing	2,000	102,000	-	205,000	210,000	215,000	220,000	222,000
Repairs & Maintenance-Hardware	-	43,700	-	44,600	45,500	46,400	47,300	47,300
Repairs & Maintenance-Miscellaneous	-	25,800	-	26,100	26,400	26,400	27,000	27,000
Repairs & Maintenance-Software	375,800	756,800	209,700	455,200	463,300	486,400	504,500	507,600
Training and Internal Meetings	6,100	61,100	40,200	62,300	63,500	64,800	71,000	72,000
Capital Outlay less than \$5,000	1,104,600	800,000	190,600	916,000	932,300	949,000	965,900	970,000
Travel	500	15,300	800	15,600	15,900	16,200	36,600	20,000
Tuition Refund	1,500	-	-	-	-	-	-	-
4.3 Contractual Services	570,500	420,000	87,300	424,200	432,700	441,300	450,200	452,000
Contract Services-Information Technology	94,900	-	-	-	-	-	-	-
Contract Services-Information Technology	100	-	-	-	-	-	-	-
Telecom, Managed Security & Network Svcs	475,500	420,000	87,300	424,200	432,700	441,300	450,200	452,000
<b>5.2 Shared Services</b>	<b>21,600</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Shared Services : Salaries & Wages	-	-	-	-	-	-	-	-
Reimbursement	15,400	-	-	-	-	-	-	-
Shared Services Reimbursement	-	-	-	-	-	-	-	-
Shared Services: Employee Benefit	-	-	-	-	-	-	-	-
Reimbursement	6,200	-	-	-	-	-	-	-
<b>6.0 Capital Outlay</b>	<b>51,900</b>	<b>370,100</b>	<b>-</b>	<b>494,000</b>	<b>501,000</b>	<b>505,000</b>	<b>508,000</b>	<b>512,000</b>
Capital Outlay over \$5k(O&M-Noncapitalized)	51,900	370,100	-	494,000	501,000	505,000	508,000	512,000

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>883331 - Infrastructure</b>	<b>14,779,500</b>	<b>19,432,400</b>	<b>11,169,800</b>	<b>19,802,900</b>	<b>21,443,400</b>	<b>21,182,000</b>	<b>21,675,400</b>	<b>21,156,500</b>
2.1 Salaries & Wages	687,500	1,056,400	419,700	1,076,300	1,076,300	1,076,300	1,076,300	1,076,300
2.4 Employee Benefits	187,700	302,600	125,400	312,300	318,300	324,300	330,300	336,300
2.5 Transition Services	176,700	-	-	-	-	-	-	-
4.2 Supplies & Other	2,272,200	1,667,800	922,600	2,136,300	2,150,000	2,211,900	2,226,400	2,185,800
Operating Supplies	-	-	-	-	-	-	-	-
Repairs & Maintenance-Hardware	1,995,100	992,100	671,300	2,003,900	2,014,900	2,026,200	2,037,800	2,037,800
Repairs & Maintenance-Software	98,700	135,200	101,700	92,000	93,900	143,800	97,700	100,000
Capital Outlay less than \$5,000	178,400	500,000	142,800	-	-	-	-	-
Memberships, Licenses & Subscriptions	-	600	-	-	-	-	-	-
Mileage and Parking	-	300	200	-	-	-	-	-
Training and Internal Meetings	-	20,400	4,800	20,800	21,200	21,600	42,100	20,000
Travel	-	19,200	1,800	19,600	20,000	20,300	48,800	28,000
4.3 Contractual Services	11,970,400	15,034,900	8,625,400	14,364,200	14,467,700	14,571,200	14,554,900	14,559,100
Contract Services-Information Technology	518,000	892,500	520,200	392,500	392,500	392,500	392,500	393,500
Contractual Operating Services	(322,900)	558,000	75,000	553,000	556,100	559,200	562,400	565,600
Telecom, Managed Security & Network Svcs	11,775,300	13,584,400	8,030,200	13,418,700	13,519,100	13,619,500	13,600,000	13,600,000
5.2 Shared Services	(2,680,300)	(2,371,100)	(1,185,500)	(1,400,000)	(357,000)	(364,200)	(371,500)	(379,000)
Shared Services : Salaries & Wages	-	-	-	-	-	-	-	-
Reimbursement	389,600	(380,000)	(190,000)	(250,000)	(84,700)	(86,400)	(88,100)	(89,900)
Shared Services Reimbursement	(3,225,500)	(1,839,100)	(919,500)	(1,050,000)	(239,700)	(244,500)	(249,400)	(254,400)
Shared Services: Employee Benefit	-	-	-	-	-	-	-	-
Reimbursement	155,600	(152,000)	(76,000)	(100,000)	(32,600)	(33,300)	(34,000)	(34,700)
6.0 Capital Outlay	2,165,300	3,741,800	2,262,200	3,313,800	3,788,100	3,362,500	3,859,000	3,378,000
Capital Outlay over \$5k(O&M-Noncapitalized)	2,165,300	3,741,800	2,262,200	3,313,800	3,788,100	3,362,500	3,859,000	3,378,000
<b>883341 - Business Productivity Systems</b>	<b>635,900</b>	<b>3,966,200</b>	<b>979,400</b>	<b>2,570,600</b>	<b>2,139,600</b>	<b>2,152,700</b>	<b>2,145,800</b>	<b>2,163,200</b>
2.1 Salaries & Wages	682,000	1,153,300	388,500	917,900	917,900	917,900	917,900	917,900
2.4 Employee Benefits	172,300	320,400	106,600	257,100	262,000	267,000	271,900	276,800
4.2 Supplies & Other	492,400	1,406,500	207,800	757,500	415,200	422,800	406,500	416,000
Memberships, Licenses & Subscriptions	100	-	200	-	-	-	-	-
Mileage and Parking	700	-	-	-	-	-	-	-
Repairs & Maintenance-Hardware	-	-	-	-	-	-	-	-
Repairs & Maintenance-Software	483,500	1,350,600	203,700	700,500	357,000	363,500	346,000	355,000
Capital Outlay less than \$5,000	3,200	-	-	-	-	-	-	-
Training and Internal Meetings	200	34,700	3,900	35,400	36,100	36,800	37,500	38,000
Travel	4,700	21,200	-	21,600	22,100	22,500	23,000	23,000
4.3 Contractual Services	669,800	784,600	268,300	588,100	494,500	495,000	499,500	502,500
Contract Services-Information Technology	669,800	784,600	255,400	588,100	494,500	495,000	499,500	502,500
Contractual Operating Services	-	-	12,900	-	-	-	-	-
5.2 Shared Services	(1,404,700)	-	-	-	-	-	-	-
Shared Services : Salaries & Wages	-	-	-	-	-	-	-	-
Reimbursement	(413,800)	-	-	-	-	-	-	-
Shared Services Reimbursement	(825,400)	-	-	-	-	-	-	-
Shared Services: Employee Benefit	-	-	-	-	-	-	-	-
Reimbursement	(165,500)	-	-	-	-	-	-	-
6.0 Capital Outlay	24,100	301,400	8,200	50,000	50,000	50,000	50,000	50,000
Capital Outlay over \$5k(O&M-Noncapitalized)	24,100	301,400	8,200	50,000	50,000	50,000	50,000	50,000
<b>883351 - Enterprise Asset Management</b>	<b>5,371,300</b>	<b>5,623,900</b>	<b>2,459,500</b>	<b>9,685,800</b>	<b>9,811,200</b>	<b>6,516,600</b>	<b>6,128,400</b>	<b>6,140,200</b>
<b>Systems</b>	<b>911,700</b>	<b>1,089,000</b>	<b>500,300</b>	<b>1,385,500</b>	<b>1,385,500</b>	<b>1,385,500</b>	<b>1,385,500</b>	<b>1,385,500</b>
2.1 Salaries & Wages	911,700	1,089,000	500,300	1,385,500	1,385,500	1,385,500	1,385,500	1,385,500
2.4 Employee Benefits	239,200	308,600	148,400	395,700	403,400	411,000	418,600	426,200
4.2 Supplies & Other	1,823,600	1,784,100	1,025,300	2,839,200	2,609,200	2,634,200	2,634,300	2,634,300
Memberships, Licenses & Subscriptions	4,500	1,500	700	500	500	500	600	600
Repairs & Maintenance-Hardware	434,800	-	150,000	-	-	-	-	-
Repairs & Maintenance-Software	1,306,600	1,713,400	840,100	2,800,000	2,570,000	2,595,000	2,595,000	2,595,000
Capital Outlay less than \$5,000	52,900	-	-	-	-	-	-	-
Training and Internal Meetings	400	40,400	30,000	20,000	20,000	20,000	20,000	20,000
Mileage and Parking	400	400	200	700	700	700	700	700
Travel	24,000	28,400	4,300	18,000	18,000	18,000	18,000	18,000
4.3 Contractual Services	3,633,100	3,233,300	1,530,200	4,102,900	3,816,900	1,160,900	765,000	769,200
Contract Services-Information Technology	3,766,500	2,439,300	1,306,400	3,905,000	3,615,000	955,000	555,000	555,000
Contractual Operating Services	(133,400)	794,000	223,800	197,900	201,900	205,900	210,000	214,200
5.2 Shared Services	(1,244,100)	(1,205,800)	(768,000)	(620,000)	-	-	-	-
Shared Services : Salaries & Wages	-	-	-	-	-	-	-	-
Reimbursement	(115,400)	(131,700)	(71,900)	(25,000)	-	-	-	-
Shared Services Reimbursement	(1,082,400)	(1,021,400)	(667,300)	(585,000)	-	-	-	-
Shared Services: Employee Benefit	-	-	-	-	-	-	-	-
Reimbursement	(46,300)	(52,700)	(28,800)	(10,000)	-	-	-	-
6.0 Capital Outlay	7,800	414,700	23,300	1,582,500	1,596,200	925,000	925,000	925,000
Capital Outlay over \$5k(O&M-Noncapitalized)	7,800	414,700	23,300	1,582,500	1,596,200	925,000	925,000	925,000

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>883361 - Security &amp; Risk</b>	<b>223,500</b>	<b>403,200</b>	<b>129,500</b>	<b>459,800</b>	<b>462,100</b>	<b>464,300</b>	<b>466,500</b>	<b>468,600</b>
<b>2.1 Salaries &amp; Wages</b>	<b>294,400</b>	<b>290,000</b>	<b>103,300</b>	<b>309,700</b>	<b>309,700</b>	<b>309,700</b>	<b>309,700</b>	<b>309,700</b>
<b>2.4 Employee Benefits</b>	<b>60,700</b>	<b>78,300</b>	<b>29,300</b>	<b>83,500</b>	<b>85,200</b>	<b>86,800</b>	<b>88,400</b>	<b>90,000</b>
<b>4.2 Supplies &amp; Other</b>	<b>(30,000)</b>	<b>53,600</b>	<b>12,500</b>	<b>3,600</b>	<b>3,700</b>	<b>3,800</b>	<b>3,900</b>	<b>3,900</b>
Memberships, Licenses & Subscriptions	200	3,600	-	3,600	3,700	3,800	3,900	3,900
Mileage and Parking	500	-	-	-	-	-	-	-
Capital Outlay less than \$5,000	10,400	50,000	12,500	-	-	-	-	-
Repairs & Maintenance-Software	(43,700)	-	-	-	-	-	-	-
Training and Internal Meetings	1,700	-	-	-	-	-	-	-
Travel	900	-	-	-	-	-	-	-
<b>5.2 Shared Services</b>	<b>(101,600)</b>	<b>(31,200)</b>	<b>(15,600)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Shared Services : Salaries & Wages								
Reimbursement	(72,600)	(22,300)	(11,100)	-	-	-	-	-
Shared Services: Employee Benefit								
Reimbursement	(29,000)	(8,900)	(4,500)	-	-	-	-	-
<b>6.0 Capital Outlay</b>	<b>-</b>	<b>12,500</b>	<b>-</b>	<b>63,000</b>	<b>63,500</b>	<b>64,000</b>	<b>64,500</b>	<b>65,000</b>
Capital Outlay over \$5k(O&M-Noncapitalized)	-	12,500	-	63,000	63,500	64,000	64,500	65,000
<b>Grand Total</b>	<b>\$ 25,960,300</b>	<b>\$ 35,831,700</b>	<b>\$ 16,945,400</b>	<b>\$ 38,976,700</b>	<b>\$ 40,383,900</b>	<b>\$ 36,925,600</b>	<b>\$ 37,128,500</b>	<b>\$ 36,655,600</b>



## Highlights

The Security and Integrity Area presently is leading GLWA in several strategic initiatives.

❖ **Completing the Business Continuity of Operations Planning (COOP)**

A COOP plan ensures that individual departments have plans in place so that their essential functions can be performed during and/or after an emergency or disaster. Along with our Emergency Response Plan, the implementation of a COOP plan for GLWA is just the next step in creating resilience.

❖ **Plan, design and implement inner-organizational HazMat Response Unit for the Lake Huron Facility**

This need was determined after canvassing the Hazmat Response Teams in the area and finding none capable of rendering assistance to the Huron Water Plant. The Security & Integrity Group will plan, design, and implement a combined staff response team capable of assisting on site resources to mitigate a Type I and Type II chemical release.

❖ **Plan, design & implement a joint “Disaster Response Unit”**

The Security and Integrity Group will be working on a concept to Plan, Design and Implement a Disaster Response Unit. This concept consists of several distinct phases:

- **Phase One** – Identify scope of response and type of equipment necessary to support and sustain responders to include vehicles.
- **Phase Two** - Coordinate with State of Michigan/FEMA to research requirements and certify GLWA as a Disaster Response team.
- **Phase Three** – Identify training requirements and train members to standards.
- **Phase Four** – Identify team makeup to include total numbers on team and minimum number to be deployed.
- **Phase Five** - Identify policy's and standard operating guidelines.
- **Phase Six** - Recurring training to ensure competencies and maintain disciplines.

The following table shows how the security and integrity area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Security & Integrity Strategic Initiatives	Completing the Business Continuity of Operations Planning (COOP)			x	x	x	x	x	x		x	x
	Plan, design and implement inner-organizational HazMat Response Unit for the Lake Huron Facility				x	x	x		x		x	x
	Plan, design & implement a joint "Disaster Response Unit"				x	x	x	x	x	x	x	x

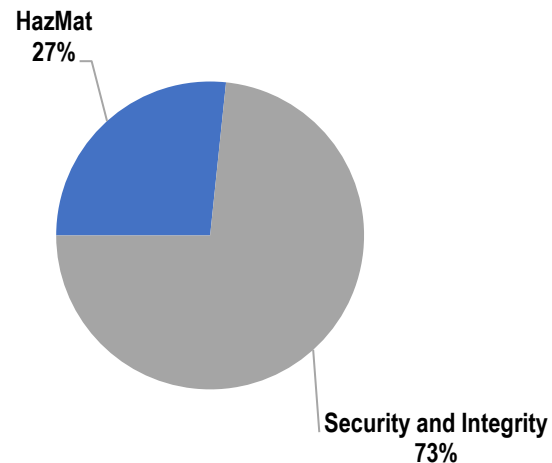
## Organization

The Security and Integrity Area consists of two teams.

- ❖ **Security and Integrity**  
Provide high quality, professional security operations and technical intelligence for the organization and its valued customers throughout Michigan.

- ❖ **HazMat**  
An in-house delivery service within the Security & Integrity Group who perform immediate response to all Level (1) Hazmat calls on the property of Water Resource Recovery Facility (WRRF). This team provides three main services; immediate response to all HazMat discharges at the WRRF, professional security operations for DMT, and confined space rescue standby for GLWA employees at WRRF.

### FY 2021 REQUEST BY TEAM

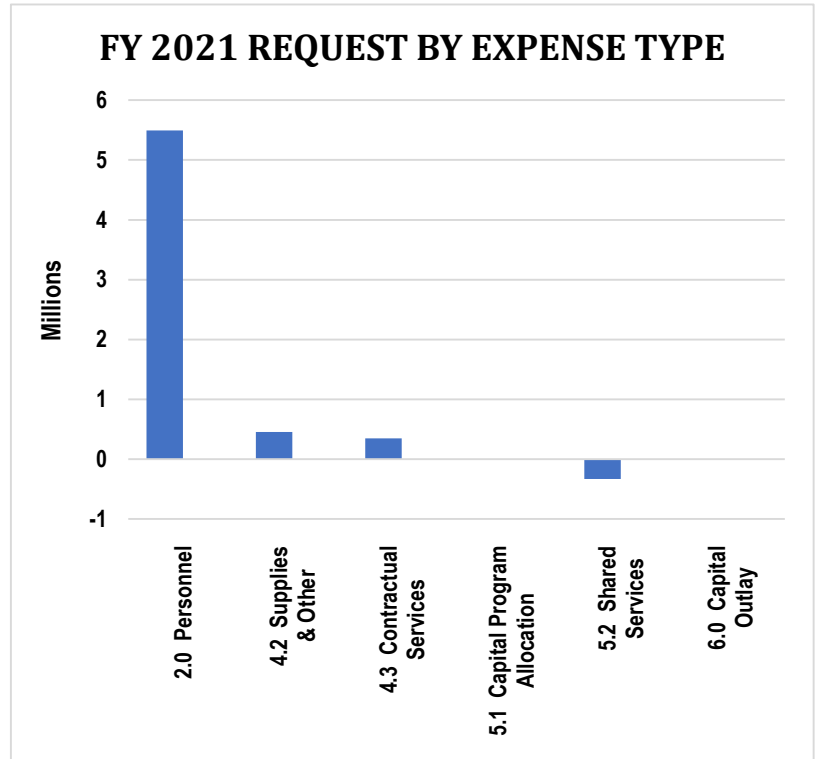


## Expense Categories

There are four major categories of Security and Integrity expenses in the Operations and Maintenance Budget as listed below.

- ❖ Personnel Costs
- ❖ Supplies & Other
- ❖ Contractual Services
- ❖ Shared Services

Personnel is the highest expense category for the Security and Integrity Area, the cost center is now fully staffed for its current responsibilities with 19 FTE's in HazMat and 60 FTE's in Security and Integrity.



## Biennial Budget Request

The biennial budget reflects an overall 2.8 percent increase in FY 2021. Key factors that impact FY2021 include the following.

- ❖ The \$74,600 increase in supplies & other is for the implementation of COOP and purchasing an additional Drone.
- ❖ The contractual services are increasing \$31,200 to launch special projects and expand the K9 program.

### Biennial Budget Request by Expense Category

Expense Categories	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 5,420,900	\$ 5,431,500	\$ 2,521,600	\$ 5,492,500	\$ 61,000	1.1%	\$ 5,520,000
4.2 Supplies & Other	502,000	378,500	93,700	453,100	74,600	19.7%	485,000
4.3 Contractual Services	312,400	314,100	38,700	345,300	31,200	9.9%	352,200
5.2 Shared Services	(487,700)	(325,000)	(135,400)	(331,500)	(6,500)	2.0%	(338,100)
<b>Grand Total</b>	<b>\$ 5,747,600</b>	<b>\$ 5,799,100</b>	<b>\$ 2,518,600</b>	<b>\$ 5,959,400</b>	<b>\$ 160,300</b>	<b>2.8%</b>	<b>\$ 6,019,100</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Security &amp; Integrity Area</b>	<b>\$ 5,747,600</b>	<b>\$ 5,799,100</b>	<b>\$ 1,488,157</b>	<b>\$ 5,959,400</b>	<b>\$ 160,300</b>	<b>2.8%</b>	<b>\$ 6,019,100</b>
HazMat	1,540,800	1,545,500	\$ 796,600	1,594,200	48,700	3.2%	1,666,800
Security and Integrity	4,206,800	4,253,600	\$ 2,248,900	4,365,200	111,600	2.6%	4,352,300
<b>Grand Total</b>	<b>\$ 5,747,600</b>	<b>\$ 5,799,100</b>	<b>\$ 3,045,500</b>	<b>\$ 5,959,400</b>	<b>\$ 160,300</b>	<b>2.8%</b>	<b>\$ 6,019,100</b>

### **Personnel Budget**

The Security and Integrity Area consists of 79 positions in FY 2021. The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

#### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Security and Integrity Area</b>	<b>76.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>
Security and Integrity	59.00	60.00	60.00	60.00	60.00	60.00	60.00
HazMat	17.00	19.00	19.00	19.00	19.00	19.00	19.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in each year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

#### *Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Security and Integrity Area</b>	<b>75.50</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>	<b>79.00</b>
Security and Integrity	58.50	60.00	60.00	60.00	60.00	60.00	60.00
HazMat	17.00	19.00	19.00	19.00	19.00	19.00	19.00

*Personnel Budget* - The following table presents the Security & Integrity personnel budget which consists of the following expense categories: Salaries & Wages, Overtime and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Central Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

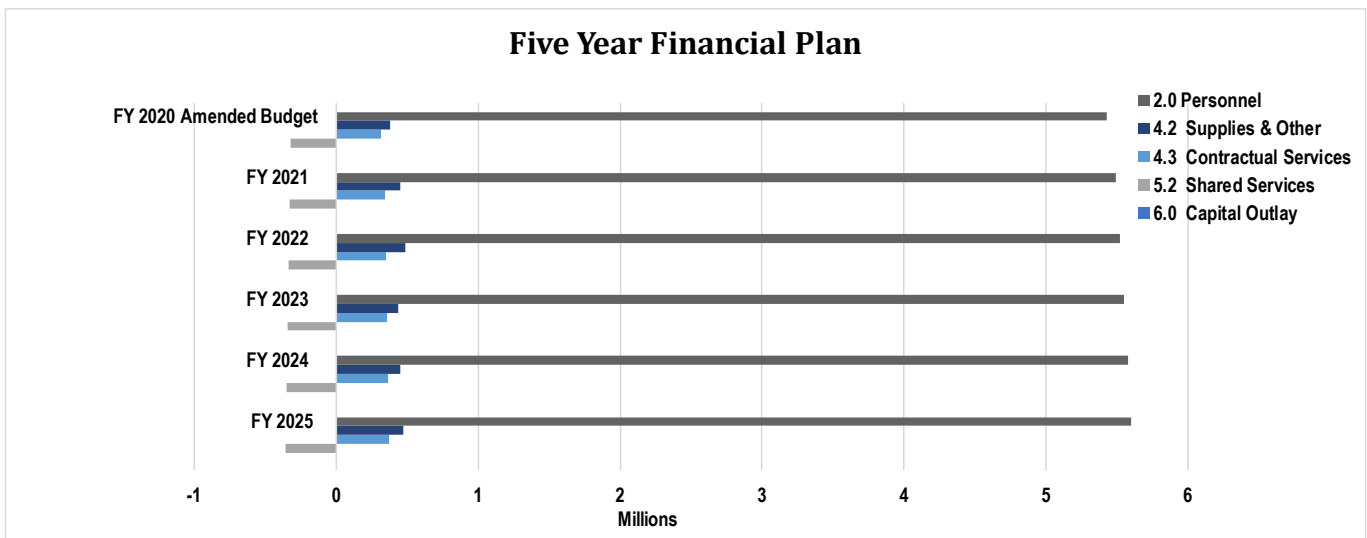
### Personnel Budget

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Security and Integrity Area</b>	<b>\$ 5,431,500</b>	<b>\$ 5,492,500</b>	<b>\$ 5,520,000</b>	<b>\$ 5,547,600</b>	<b>\$ 5,575,100</b>	<b>\$ 5,602,800</b>
Security and Integrity	3,986,900	4,002,900	4,023,300	4,043,700	4,064,100	4,084,600
HazMat	1,444,600	1,489,600	1,496,700	1,503,900	1,511,000	1,518,200

### Five-Year Financial Plan

#### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 5,431,500	\$ 3,026,600	\$ 5,492,500	\$ 61,000	1.1%	\$ 5,520,000	\$ 5,547,600	\$ 5,575,100	\$ 5,602,800
4.2 Supplies & Other	378,500	131,900	453,100	74,600	19.7%	485,000	439,000	449,600	469,500
4.3 Contractual Services	314,100	49,500	345,300	31,200	9.9%	352,200	359,300	366,400	373,700
5.2 Shared Services	(325,000)	(162,500)	(331,500)	(6,500)	2.0%	(338,100)	(344,800)	(351,800)	(358,900)
<b>Grand Total</b>	<b>\$ 5,799,100</b>	<b>\$ 3,045,500</b>	<b>\$ 5,959,400</b>	<b>\$ 160,300</b>	<b>2.8%</b>	<b>\$ 6,019,100</b>	<b>\$ 6,001,100</b>	<b>\$ 6,039,300</b>	<b>\$ 6,087,100</b>

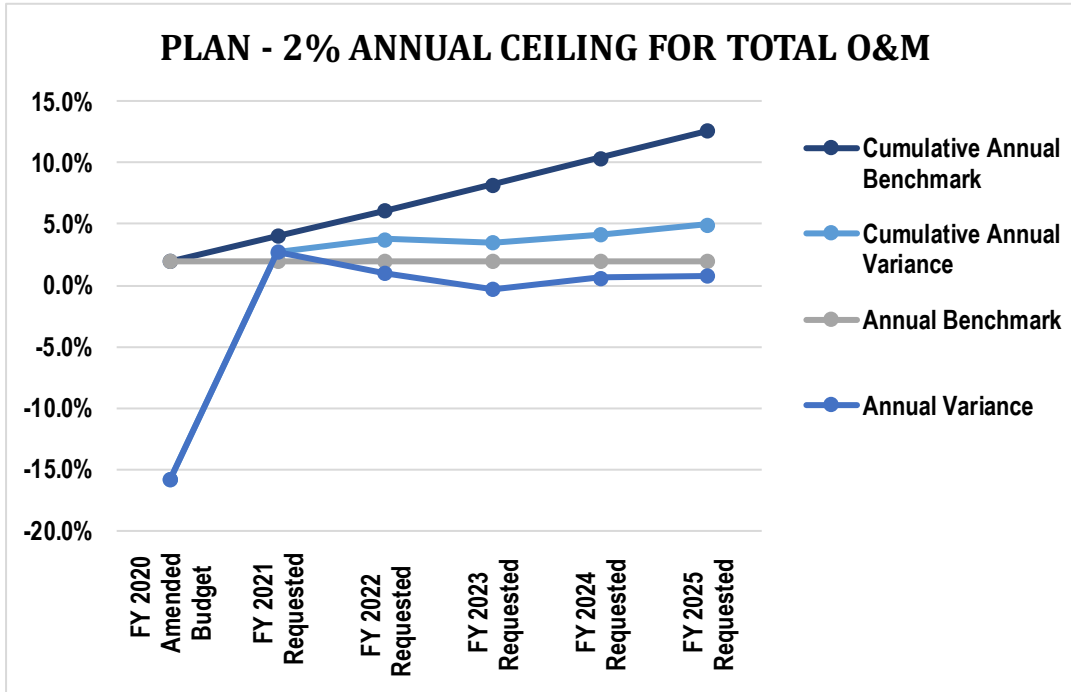


#### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
HazMat	\$ 1,545,500	\$ 796,600	\$ 1,594,200	\$ 48,700	3.2%	\$ 1,666,800	\$ 1,625,500	\$ 1,639,700	\$ 1,663,300
Security and Integrity	4,253,600	2,248,900	4,365,200	111,600	2.6%	4,352,300	4,375,600	4,399,600	4,423,800
<b>Grand Total</b>	<b>\$ 5,799,100</b>	<b>\$ 3,045,500</b>	<b>\$ 5,959,400</b>	<b>\$ 160,300</b>	<b>2.8%</b>	<b>\$ 6,019,100</b>	<b>\$ 6,001,100</b>	<b>\$ 6,039,300</b>	<b>\$ 6,087,100</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Security and Integrity Area financial plan reflects a Five-Year Overall increase of 5.0% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment).



## Capital Outlay

The Security and Integrity Area capital outlay is funded by both the Improvement & Extension (I&E) budget and the Operations & Maintenance (O&M) budget. The largest component of this plan is the Security Infrastructure Improvements Project, SOQ 135A, to meet Homeland Securities requirements.

### *Five-Year Capital Outlay by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 2,359,000	\$ 1,093,800	\$ 850,300	\$ -	\$ -	\$ -
Access Control, Surveillance	2,359,000	1,093,800	850,300	-	-	-
<b>Grand Total</b>	<b>\$ 2,359,000</b>	<b>\$ 1,093,800</b>	<b>\$ 850,300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### *Five-Year Capital Outlay by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 2,359,000	\$ 1,093,800	\$ 850,300	\$ -	\$ -	\$ -
<b>Grand Total</b>	<b>\$ 2,359,000</b>	<b>\$ 1,093,800</b>	<b>\$ 850,300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

### *Five-Year Capital Outlay by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Security and Integrity	\$ 2,359,000	\$ 1,093,800	\$ 850,300	\$ -	\$ -	\$ -
<b>Grand Total</b>	<b>\$ 2,359,000</b>	<b>\$ 1,093,800</b>	<b>\$ 850,300</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>



## Line Item Budget and Financial Plan

The Security & Integrity Area five-year plan with a line item expense budget is listed below. Because of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>881201 - Security and Integrity</b>	<b>\$ 4,206,800</b>	<b>\$ 4,253,600</b>	<b>\$ 2,248,900</b>	<b>\$ 4,365,200</b>	<b>\$ 4,352,300</b>	<b>\$ 4,375,600</b>	<b>\$ 4,399,600</b>	<b>\$ 4,423,800</b>
2.1 Salaries & Wages	2,538,600	2,780,300	1,403,500	2,772,400	2,772,400	2,772,400	2,772,400	2,772,400
2.3 Overtime	356,600	164,400	122,500	168,500	168,500	168,500	168,500	168,500
2.4 Employee Benefits	1,186,400	1,042,200	725,200	1,062,000	1,082,400	1,102,800	1,123,200	1,143,700
4.2 Supplies & Other	300,500	277,600	110,700	348,500	314,900	317,400	320,900	324,400
Memberships, Licenses & Subscriptions	25,500	23,600	10,000	24,000	24,500	25,000	25,500	26,000
Mileage and Parking	400	200	-	200	200	200	200	200
Office Supplies	11,900	20,300	8,200	20,500	20,700	20,900	21,200	21,600
Operating Supplies	87,600	60,000	9,400	134,800	97,800	97,000	97,000	97,000
Training and Internal Meetings	99,400	59,500	35,400	100,700	102,000	103,200	104,500	105,700
Travel	17,000	30,500	18,400	15,800	16,100	16,400	16,700	17,000
Tuition Refund	9,400	7,000	4,100	-	-	-	-	-
Uniforms, Laundry, Cleaning	-	25,000	-	-	-	-	-	-
Employee Uniform Expense	49,300	51,500	25,200	52,500	53,600	54,700	55,800	56,900
<b>4.3 Contractual Services</b>	<b>312,400</b>	<b>314,100</b>	<b>49,500</b>	<b>345,300</b>	<b>352,200</b>	<b>359,300</b>	<b>366,400</b>	<b>373,700</b>
Contractual Operating Services		10,200	-	10,400	10,600	10,800	11,000	11,200
Contractual Security Services	312,400	303,900	49,500	334,900	341,600	348,500	355,400	362,500
<b>5.2 Shared Services</b>	<b>(487,700)</b>	<b>(325,000)</b>	<b>(162,500)</b>	<b>(331,500)</b>	<b>(338,100)</b>	<b>(344,800)</b>	<b>(351,800)</b>	<b>(358,900)</b>
Shared Services : Salaries & Wages								
Reimbursement	(391,800)	(196,500)	(98,200)	(200,400)	(204,400)	(208,500)	(212,700)	(217,000)
Shared Services Reimbursement	51,800	(50,000)	(25,000)	(51,000)	(52,000)	(53,000)	(54,100)	(55,200)
Shared Services: Employee Benefit								
Reimbursement	(147,700)	(78,500)	(39,300)	(80,100)	(81,700)	(83,300)	(85,000)	(86,700)
<b>881202 - HazMat</b>	<b>1,540,800</b>	<b>1,545,500</b>	<b>796,600</b>	<b>1,594,200</b>	<b>1,666,800</b>	<b>1,625,500</b>	<b>1,639,700</b>	<b>1,663,300</b>
2.1 Salaries & Wages	845,900	991,000	520,200	1,020,600	1,020,600	1,020,600	1,020,600	1,020,600
2.3 Overtime	142,600	95,300	42,000	97,700	97,700	97,700	97,700	97,700
2.4 Employee Benefits	350,800	358,300	213,200	371,300	378,400	385,600	392,700	399,900
4.2 Supplies & Other	201,500	100,900	21,200	104,600	170,100	121,600	128,700	145,100
Memberships, Licenses & Subscriptions	500	3,500	100	1,200	4,200	1,200	4,200	4,300
Office Supplies	-	7,000	-	7,000	7,000	7,000	7,000	7,100
Operating Supplies	145,800	10,000	1,600	25,000	25,000	25,000	25,000	30,300
Repairs & Maintenance-Equipment	-	13,900	1,400	15,900	20,900	20,900	20,900	32,200
Training and Internal Meetings	32,100	36,000	11,600	17,500	20,000	22,000	20,500	23,500
Travel	1,600	-	2,300	4,000	4,000	5,000	5,000	6,000
Tuition Refund	-	-	1,300	-	-	-	-	-
Capital Outlay less than \$5,000	-	25,500	-	26,000	79,800	31,300	36,900	32,500
Uniforms, Laundry, Cleaning	-	-	-	6,000	7,200	7,200	7,200	7,200
Employee Uniform Expense	21,500	5,000	2,900	2,000	2,000	2,000	2,000	2,000
<b>Grand Total</b>	<b>\$ 5,747,600</b>	<b>\$ 5,799,100</b>	<b>\$ 3,045,500</b>	<b>\$ 5,959,400</b>	<b>\$ 6,019,100</b>	<b>\$ 6,001,100</b>	<b>\$ 6,039,300</b>	<b>\$ 6,087,100</b>

## Section 3D

# Administrative Services

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## Organization

The Board of Directors is composed of six voting members. Two members are residents of the City of Detroit and are appointed by the Mayor of the city. The counties of Wayne, Oakland, and Macomb each appoint one member who is a resident of the county from which appointed. The Governor of the State of Michigan appoints one member who is a resident of an area served by GLWA that is outside of the three counties.

**Board of Directors** – A governing body that brings together representatives from the surrounding counties to set policies that help GLWA execute its mission and vision in the long-term to ensure GLWA is a provider of choice for water and wastewater services in Southeast Michigan.

## Expense Categories

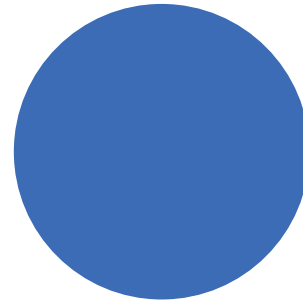
The primary cost driver in the Board of Directors' area is Salaries, Wages and Benefits. This is the category in which the Board's stipends are recorded. Budget to actual variances are recognized when a Board member opts out of receiving the monthly stipend.

Other smaller, but significant expenditures are captured in the following areas:

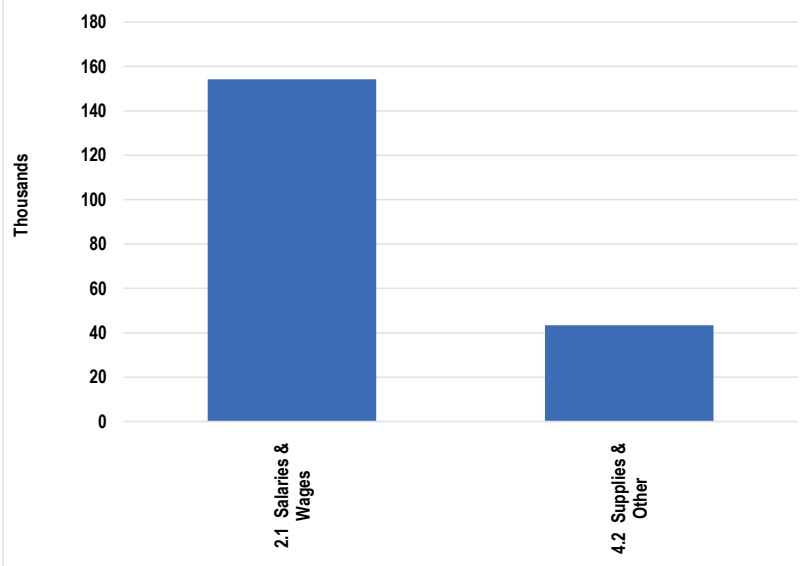
- ❖ Memberships, Licenses & Subscriptions
- ❖ Travel
- ❖ Training & Internal Meetings

## FY 2021 REQUEST BY TEAM

Board of Directors  
100%



## FY 2021 REQUEST BY EXPENSE TYPE



## Biennial Budget Request

The biennial budget reflects a slight increase in Operations & Maintenance for FY 2021. The Personnel line for FY 2021 assumes 100% participation in the stipend for Board members. The budget is amended during the current year if Board members opt out of receiving the monthly stipend.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 100,800	\$ 134,400	\$ 60,600	\$ 154,200	\$ 19,800	14.7%	\$ 157,300
4.2 Supplies & Other	3,400	42,600	1,100	43,400	800	1.9%	44,300
<b>Grand Total</b>	<b>\$ 104,200</b>	<b>\$ 177,000</b>	<b>\$ 61,700</b>	<b>\$ 197,600</b>	<b>\$ 20,600</b>	<b>11.6%</b>	<b>\$ 201,600</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Board of Directors	\$ 104,200	\$ 177,000	\$ 61,700	\$ 197,600	\$ 20,600	11.6%	\$ 201,600
<b>Grand Total</b>	<b>\$ 104,200</b>	<b>\$ 177,000</b>	<b>\$ 61,700</b>	<b>\$ 197,600</b>	<b>\$ 20,600</b>	<b>11.6%</b>	<b>\$ 201,600</b>

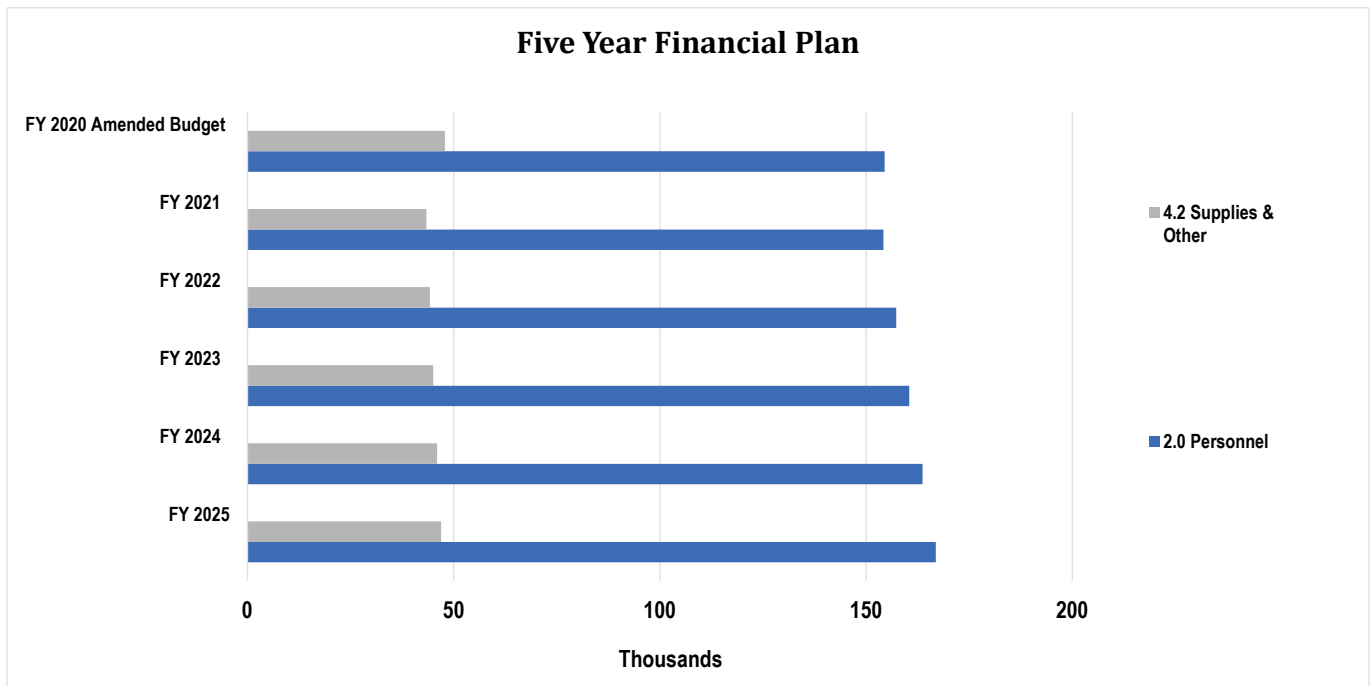
## Personnel Budget

The Board of Directors' Area is not reported in the GLWA Staffing Plan and Full-time Equivalents tables.

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 134,400	\$ 60,600	\$ 154,200	\$ 19,800	14.7%	\$ 157,300	\$ 160,500	\$ 163,700	\$ 166,900
4.2 Supplies & Other	42,600	1,100	43,400	800	1.9%	44,300	45,100	46,000	47,000
<b>Grand Total</b>	<b>\$ 177,000</b>	<b>\$ 61,700</b>	<b>\$ 197,600</b>	<b>\$ 20,600</b>	<b>11.6%</b>	<b>\$ 201,600</b>	<b>\$ 205,600</b>	<b>\$ 209,700</b>	<b>\$ 213,900</b>

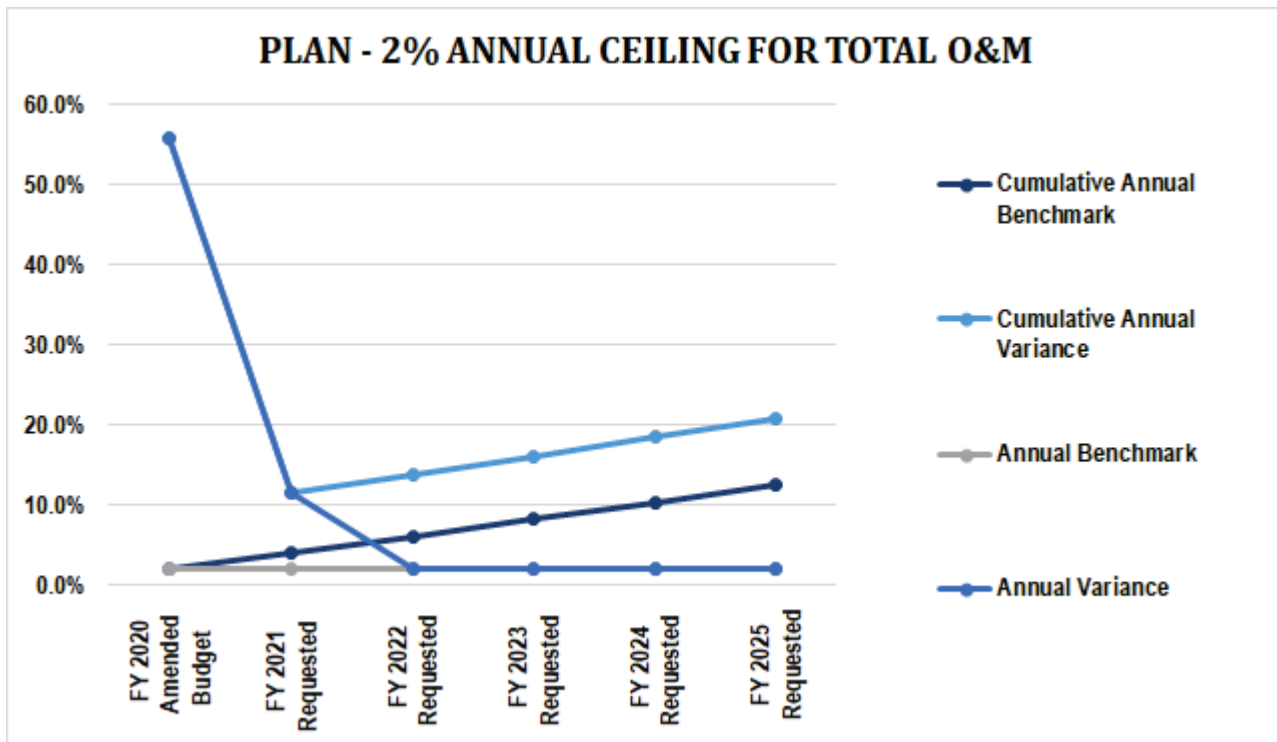


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department. Requested
Board of Directors	\$ 177,000	\$ 61,700	\$ 197,600	\$ 20,600	11.6%	\$ 201,600	\$ 205,600	\$ 209,700	\$ 213,900
<b>Grand Total</b>	<b>\$ 177,000</b>	<b>\$ 61,700</b>	<b>\$ 197,600</b>	<b>\$ 20,600</b>	<b>11.6%</b>	<b>\$ 201,600</b>	<b>\$ 205,600</b>	<b>\$ 209,700</b>	<b>\$ 213,900</b>

### ***Alignment with Entity-wide Annual O&M Ceiling Goal of 2%***

The Board of Directors' financial plan reflects a Five-Year Overall increase of 20.8% while the entity-wide goal is a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment). The budget for FY 2020 through FY 2025 assumes 100% participation in the stipend for the Board of Directors. The budget for FY 2020 was amended to reflect the actual participation for that fiscal year. The original budget for FY 2020 with full participation was \$202,400. If the overall increase were calculated based on the cost of full participation for FY 2020 it would be 5.7% which is within the entity-wide goal.



### **Capital Outlay**

Capital Outlay is not a component of the Board of Directors' Area.



## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget is shown below. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>881151 - Board of Directors</b>	\$ 104,200	\$ 177,000	\$ 61,700	\$ 197,600	\$ 201,600	\$ 205,600	\$ 209,700	\$ 213,900
<b>2.1 Salaries &amp; Wages</b>	100,800	134,400	60,600	154,200	157,300	160,500	163,700	166,900
<b>4.2 Supplies &amp; Other</b>	3,400	42,600	1,100	43,400	44,300	45,100	46,000	47,000
Inspection and Permit Fees	-	7,100	-	7,200	7,400	7,500	7,700	7,800
Memberships, Licenses & Subscriptions	-	10,200	-	10,400	10,600	10,800	11,000	11,300
Office Supplies	-	5,100	-	5,200	5,300	5,400	5,500	5,600
Training and Internal Meetings	-	10,200	-	10,400	10,600	10,800	11,000	11,300
Travel	3,400	10,000	1,100	10,200	10,400	10,600	10,800	11,000
<b>Grand Total</b>	<b>\$ 104,200</b>	<b>\$ 177,000</b>	<b>\$ 61,700</b>	<b>\$ 197,600</b>	<b>\$ 201,600</b>	<b>\$ 205,600</b>	<b>\$ 209,700</b>	<b>\$ 213,900</b>

## Highlights

In conjunction with the GLWA Board, the Chief Executive Officer's initiatives were established in FY 2019 and span multiple years. These initiatives speak to the values that are foundational to the establishment of GLWA.

- ❖ **Environmental Regulatory Compliance**
- ❖ **Financial Resiliency and Charge Equity and Stability**
- ❖ **Capital and Operational Utility Optimization**
- ❖ **Member Partner Engagement and Satisfaction**
- ❖ **GLWA Team Member Support and Retention**
- ❖ **GLWA 4% Promise to contain revenue requirement**

The table below shows how the Chief Executive Officer's initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Chief Executive Officer Strategic Initiatives	Environmental Regulatory Compliance	x	x	x				x	x			x
	Financial Resiliency and Charge Equity and Stability	x	x					x	x	x		x
	Capital and Operational Utility Optimization	x	x	x	x	x	x	x	x			x
	Member Partner Engagement and Satisfaction						x	x	x	x		x
	GLWA Team Member Support and Retention		x	x	x	x	x	x	x	x	x	x
	GLWA 4% Promise to contain revenue requirement							x		x		

## Organization

Through the leadership of the Chief Executive Officer, and in conjunction with the GLWA Board and Member Partners, the team members of GLWA strive to achieve its mission and vision.

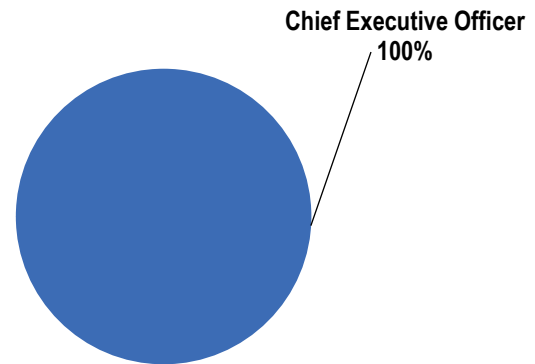
*OUR MISSION:* To exceed our customers' expectations by utilizing best practices in the treatment and transmission of water and wastewater, while promoting healthy communities and economic growth.

*OUR VISION:* Through regional collaboration, GLWA strives to be the provider of choice, dedicated to efficiently delivering the nation's best water and sewer services in partnership with our customers.

### ❖ Chief Executive Officer

Responsible for the day-to-day supervision and management of the affairs of the utility, including establishing and delineating organizational goals and objectives which further GLWA's mission and values.

### FY 2021 REQUEST BY TEAM

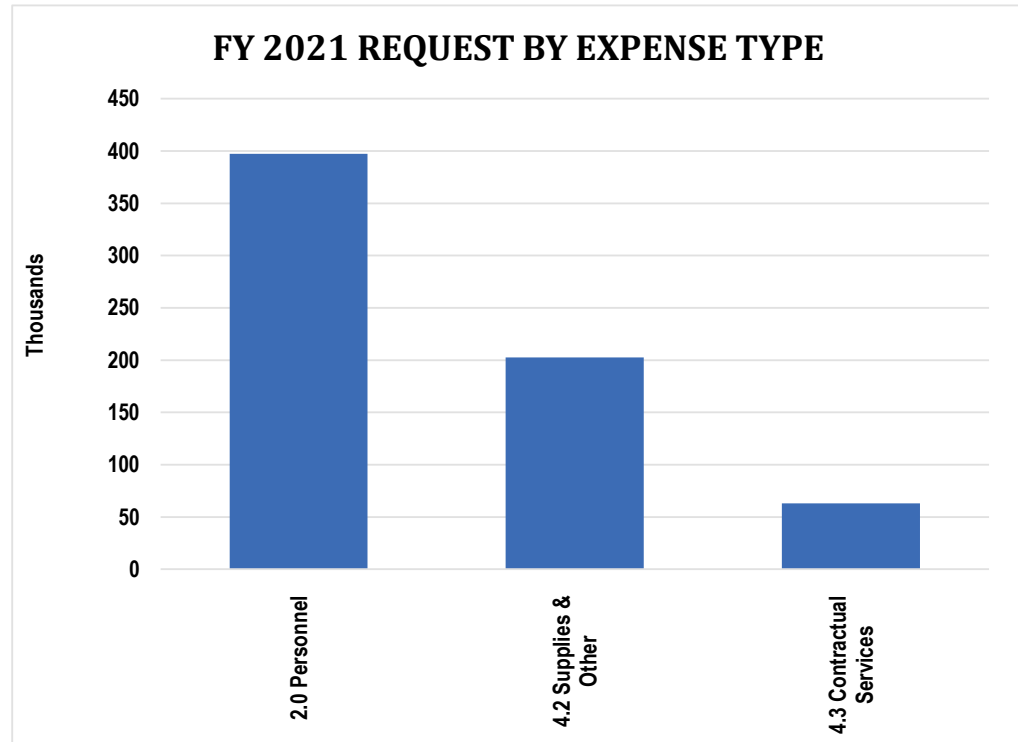


## Expense Categories

The Chief Executive Officer's Area consists of three major expense categories:

- ❖ Personnel
- ❖ Supplies & Other
- ❖ Contractual Services

Based upon the nature of this service area, the highest category of expense is salaries. The second highest, Supplies & Other, provides for training and organizational memberships.



## Biennial Budget Request

The biennial budget reflects an increase of 4.8% in FY 2021. The primary increase in the Supplies & Other category is due to a monthly parking contract for 26 spaces. The budget was increased beginning with FY 2021 based on a review of historical data and the increase of the monthly parking fee.

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 384,900	\$ 386,400	\$ 188,000	\$ 397,200	\$ 10,800	2.8%	\$ 398,700
4.2 Supplies & Other	180,400	199,100	98,000	202,600	3,500	1.8%	206,700
4.3 Contractual Services	-	47,200	-	63,200	16,000	33.9%	64,600
<b>Grand Total</b>	<b>\$ 565,300</b>	<b>\$ 632,700</b>	<b>\$ 286,000</b>	<b>\$ 663,000</b>	<b>\$ 30,300</b>	<b>4.8%</b>	<b>\$ 670,000</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Chief Executive Officer	\$ 565,300	\$ 632,700	\$ 286,000	\$ 663,000	\$ 30,300	4.8%	\$ 670,000
<b>Grand Total</b>	<b>\$ 565,300</b>	<b>\$ 632,700</b>	<b>\$ 286,000</b>	<b>\$ 663,000</b>	<b>\$ 30,300</b>	<b>4.8%</b>	<b>\$ 670,000</b>

## Personnel Budget

The staffing plan provides for the Chief Executive Officer and administrative support. This is consistent with the staffing plans of prior years.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* – The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### *Staffing Plan – Number of Positions*

	Prior Year FY 2019	Current Year FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Team	Staffing Plan	Staffing Plan	Staffing Plan	Staffing Plan	Staffing Plan	Staffing Plan	Staffing Plan
Chief Executive Officer	2.00	2.00	2.00	2.00	2.00	2.00	2.00

*Full Time Equivalents* – the table below presents, “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, each year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

### *Full Time Equivalents*

	Prior Year FY 2019	Current Year FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Team	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs	FTEs
Chief Executive Officer	2.00	2.00	2.00	2.00	2.00	2.00	2.00

*Personnel Budget* - the table below presents the Chief Executive Officer’s personnel budget which consists of the following expense categories: Salaries & Wages and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Administrative Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

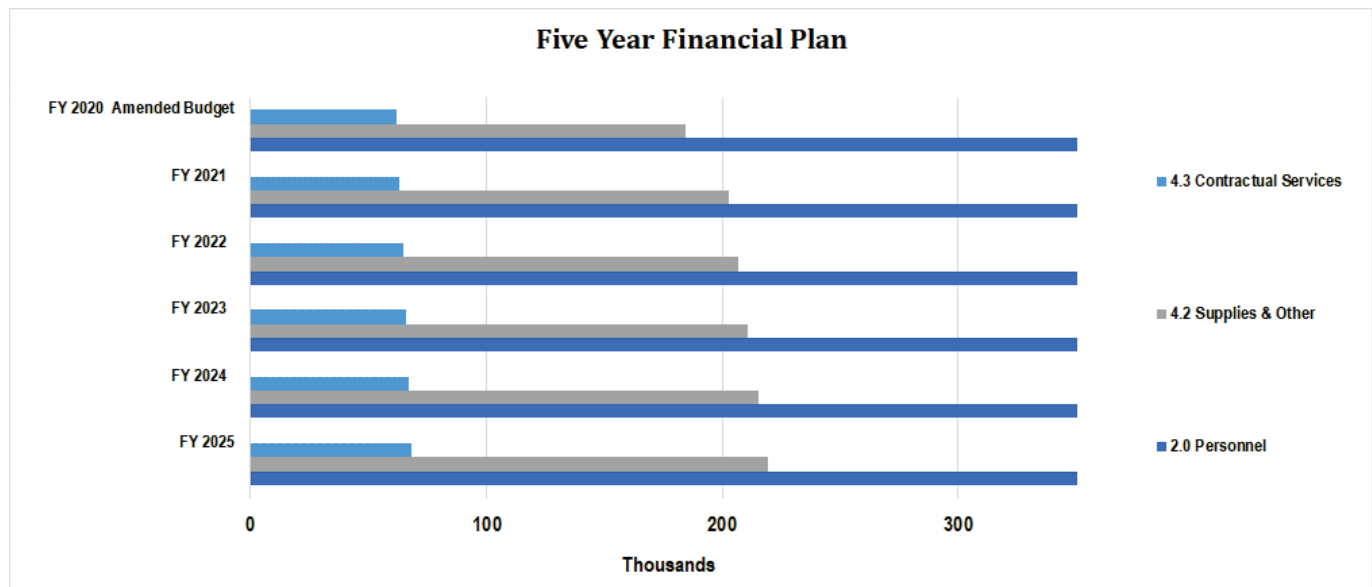
### *Personnel Budget*

	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Team						
Chief Executive Officer	\$ 386,400	\$ 397,200	\$ 398,700	\$ 400,200	\$ 401,600	\$ 403,100
Grand Total	\$ 386,400	\$ 397,200	\$ 398,700	\$ 400,200	\$ 401,600	\$ 403,100

## Five Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 386,400	\$ 188,000	\$ 397,200	\$ 10,800	2.8%	\$ 398,700	\$ 400,200	\$ 401,600	\$ 403,100
4.2 Supplies & Other	184,300	98,000	202,600	18,300	9.9%	206,700	210,700	215,100	219,300
4.3 Contractual Services	62,000		63,200	1,200	1.9%	64,600	65,800	67,200	68,400
<b>Grand Total</b>	<b>\$ 632,700</b>	<b>\$ 286,000</b>	<b>\$ 663,000</b>	<b>\$ 30,300</b>	<b>4.8%</b>	<b>\$ 670,000</b>	<b>\$ 676,700</b>	<b>\$ 683,900</b>	<b>\$ 690,800</b>

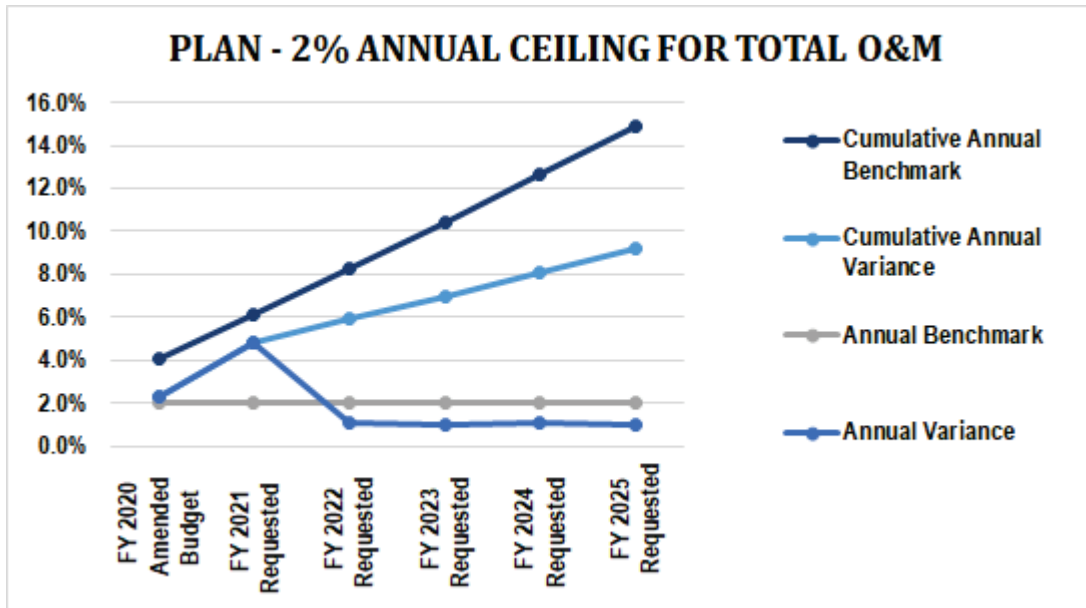


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Chief Executive Officer	\$ 632,700	\$ 286,000	\$ 663,000	\$ 30,300	4.8%	\$ 670,000	\$ 676,700	\$ 683,900	\$ 690,800
<b>Grand Total</b>	<b>\$ 632,700</b>	<b>\$ 286,000</b>	<b>\$ 663,000</b>	<b>\$ 30,300</b>	<b>4.8%</b>	<b>\$ 670,000</b>	<b>\$ 676,700</b>	<b>\$ 683,900</b>	<b>\$ 690,800</b>

### Alignment with Entity-wide Annual O&M Ceiling Goal of 2%

The Chief Executive Officer's financial plan reflects a Five-Year Overall increase of 9.2% which is within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes based upon an annual 2% adjustment.



## Capital Outlay

Capital Outlay is not a component of the Chief Executive Officer Area.

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget is shown below. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>881001 - Chief Executive Officer</b>	\$ 565,300	\$ 632,700	\$ 286,000	\$ 663,000	\$ 670,000	\$ 676,700	\$ 683,900	\$ 690,800
<b>2.1 Salaries &amp; Wages</b>	340,300	332,100	162,900	320,200	320,200	320,200	320,200	320,200
<b>2.4 Employee Benefits</b>	44,600	54,300	25,100	77,000	78,500	80,000	81,400	82,900
<b>4.2 Supplies &amp; Other</b>	180,400	199,100	98,000	202,600	206,700	210,700	215,100	219,300
Memberships, Licenses & Subscriptions	99,100	103,100	50,300	105,200	107,300	109,400	111,600	113,800
Mileage and Parking	53,600	63,000	36,200	63,800	65,100	66,400	67,700	69,100
Office Supplies	9,500	10,300	2,400	10,500	10,700	10,900	11,200	11,400
Training and Internal Meetings	4,100	7,200	2,000	7,300	7,500	7,600	7,800	7,900
Travel	14,100	15,500	7,100	15,800	16,100	16,400	16,800	17,100
<b>4.3 Contractual Services</b>	-	47,200	-	63,200	64,600	65,800	67,200	68,400
Contractual Professional Services	-	23,600	-	31,600	32,300	32,900	33,600	34,200
Legal	-	23,600	-	31,600	32,300	32,900	33,600	34,200
<b>Grand Total</b>	<b>\$ 565,300</b>	<b>\$ 632,700</b>	<b>\$ 286,000</b>	<b>\$ 663,000</b>	<b>\$ 670,000</b>	<b>\$ 676,700</b>	<b>\$ 683,900</b>	<b>\$ 690,800</b>



## Highlights

The Chief Administrative and Compliance Officer Area presently is leading GLWA in several strategic initiatives.

- ❖ **Continue Build Out of Risk Management/Safety Organization**  
Add additional professionals experienced in an array of environmental safety compliance matters and enterprise risk management procedures.
- ❖ **Procure Consulting Services for Replacement Cost Valuation of GLWA Assets**  
Replacement cost valuations support the Authority's Total Insurable Values (TIV's) which is a requirement for Property insurance policies. Accurate replacement costs are necessary to ensure appropriate policy pricing.

The table below shows how the chief administrative and compliance officer area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Chief Administrative Officer Strategic Initiatives	Continue Build Out of Risk Management/Safety Organization				x	x	x					
	Procure Consulting Services for Replacement Cost Valuation of GLWA Assets		x				x					x

## Organization

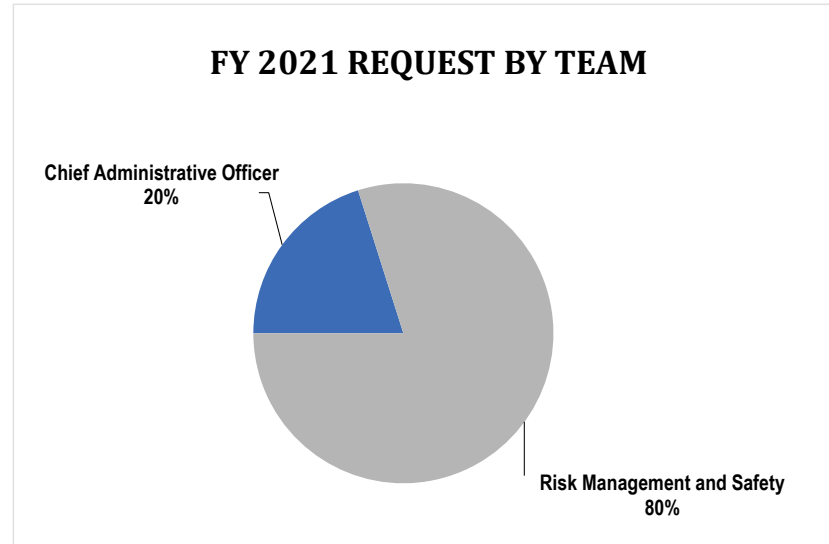
The Chief Administrative and Compliance Officer (CACO) Area consists of two teams.

❖ **Chief Administrative Officer**

Provides support to the Board of Directors and the Chief Executive Officer. The Office provides coordinative services and administrative support to Enterprise Risk Management, Organizational Development, General Counsel and Information Technology.

❖ **Risk Management and Safety**

Responsible for a process, effected by GLWA's board of directors and management, which is designed to identify potential events that may affect the Authority, and to manage risk within its risk appetite to provide reasonable assurance regarding the achievement of GLWA's objectives.

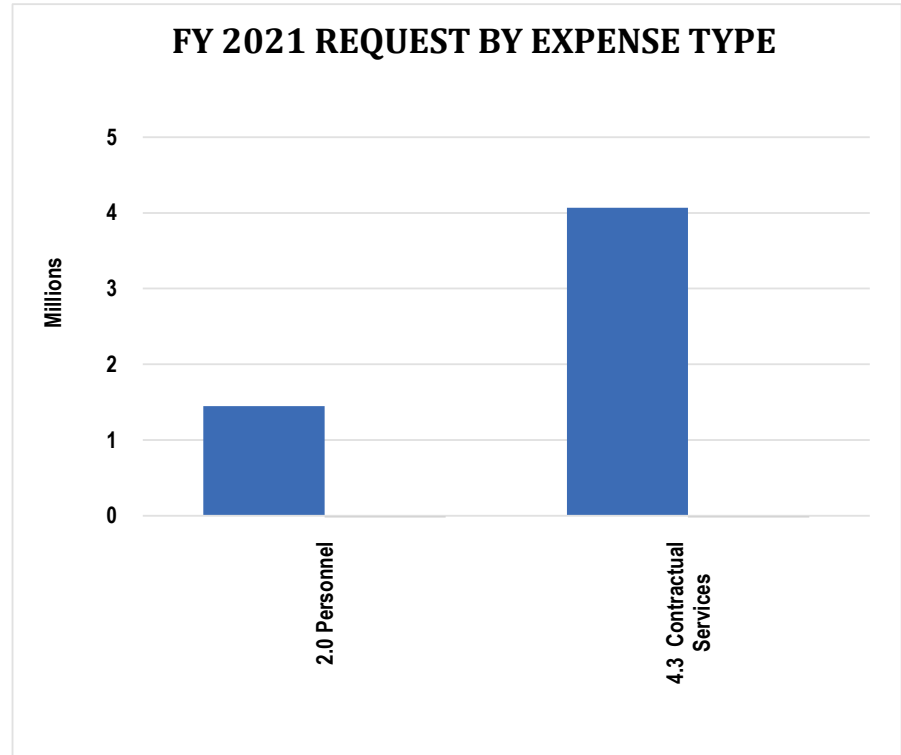


## Expense Categories

There are two major categories of Chief Administrative and Compliance Officer Area expenses in the Operations and Maintenance Budget as listed below.

- ❖ Personnel
- ❖ Contractual Services

Contractual Services is the highest expense category and for FY 2021 the contractual services account encompasses two major contracts; Government Relation Services and NTH Engineering contract (CS-213) which replaced SOMAT (CS- 1513) for environmental health & safety compliance services.



## Biennial Budget Request

The biennial budget reflects an overall 8.1 percent increase in FY 2021. Key factors that impact FY2021 include the following.

- ❖ During the budgeting process, Risk Management and Safety performed a salary survey during their recruiting campaign to fill open positions. Several positions salaries have been increased to bring them in par with the market. The change in personnel costs is a \$235,700 increase in FY 2021.
- ❖ The \$177,900 increase in Contractual Services is for the retaining of Government Relations Services.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 922,000	\$ 1,233,300	\$ 539,700	\$ 1,469,000	\$ 235,700	19.1%	\$ 1,475,300
4.2 Supplies & Other	20,800	23,100	14,200	28,100	5,000	21.6%	28,200
4.3 Contractual Services	3,562,200	3,911,300	2,472,300	4,089,200	177,900	4.5%	4,144,600
<b>Grand Total</b>	<b>\$ 4,505,000</b>	<b>\$ 5,167,700</b>	<b>\$ 3,026,200</b>	<b>\$ 5,586,300</b>	<b>\$ 418,600</b>	<b>8.1%</b>	<b>\$ 5,648,100</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Chief Administrative Officer	\$ 731,100	\$ 936,600	\$ 350,900	\$ 1,123,600	\$ 187,000	20.0%	\$ 1,131,600
Risk Management and Safety	3,773,900	4,231,100	2,675,300	4,462,700	231,600	5.5%	4,516,500
<b>Grand Total</b>	<b>\$ 4,505,000</b>	<b>\$ 5,167,700</b>	<b>\$ 3,026,200</b>	<b>\$ 5,586,300</b>	<b>\$ 418,600</b>	<b>8.1%</b>	<b>\$ 5,648,100</b>

### **Personnel Budget**

The Chief Administrative and Compliance Officer Area consists of 13 positions for FY 2021, which is staying consistent with FY 2020 staffing level.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

#### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Chief Administrative and Compliance Officer Area</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>
Chief Administrative Officer	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Risk Management and Safety	8.00	8.00	8.00	8.00	8.00	8.00	8.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

#### *Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Chief Administrative and Compliance Officer Area</b>	<b>13.00</b>	<b>11.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>	<b>13.00</b>
Chief Administrative Officer	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Risk Management and Safety	8.00	6.00	8.00	8.00	8.00	8.00	8.00

*Personnel Budget* - The table below presents the Chief Administrative and Compliance Officer Area personnel budget which consists of the following expense categories: Salaries & Wages and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table

above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Administrative Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

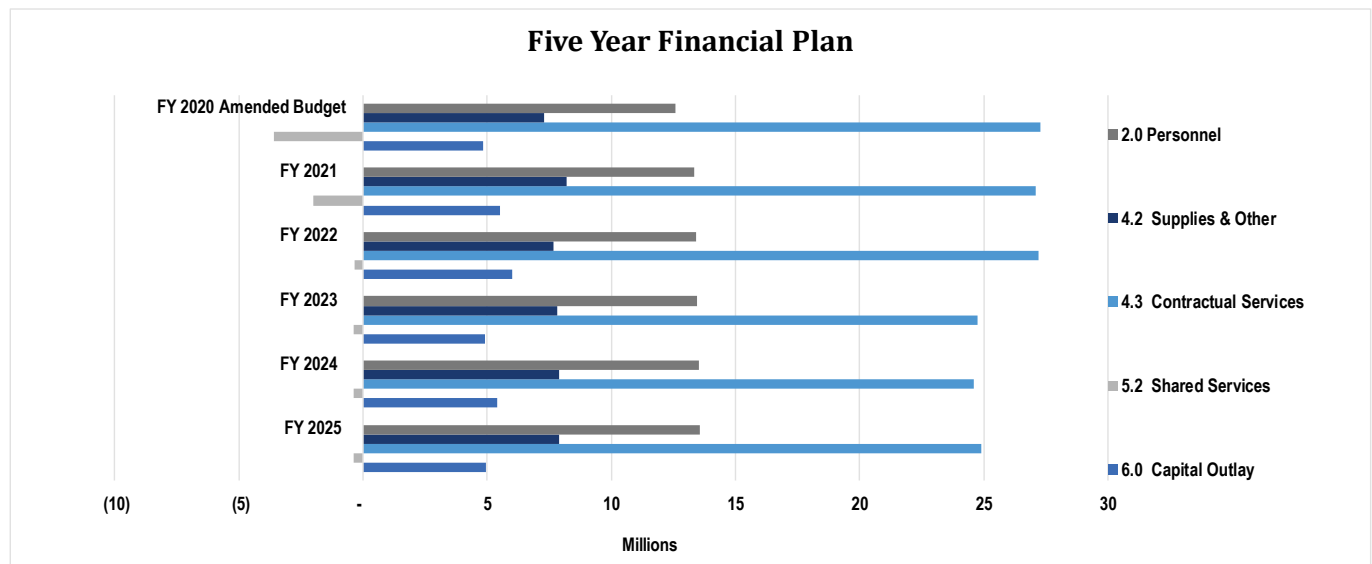
### *Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Chief Administrative and Compliance Officer Area</b>	<b>\$ 1,233,300</b>	<b>\$ 1,469,000</b>	<b>\$ 1,475,300</b>	<b>\$ 1,481,500</b>	<b>\$ 1,487,800</b>	<b>\$ 1,494,000</b>
Chief Administrative Officer	633,600	662,400	665,100	667,800	670,500	673,200
Risk Management and Safety	599,700	806,600	810,200	813,700	817,300	820,800

## **Five Year Financial Plan**

### *Five-Year Financial Plan by Expense Category*

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 1,233,300	\$ 539,700	\$ 1,469,000	\$ 235,700	19.1%	\$ 1,475,300	\$ 1,481,500	\$ 1,487,800	\$ 1,494,000
4.2 Supplies & Other	23,100	14,200	28,100	5,000	21.6%	28,200	28,300	28,300	28,300
4.3 Contractual Services	3,911,300	2,472,300	4,089,200	177,900	4.5%	4,144,600	4,200,000	4,263,400	4,358,000
<b>Grand Total</b>	<b>\$ 5,167,700</b>	<b>\$ 3,026,200</b>	<b>\$ 5,586,300</b>	<b>\$ 418,600</b>	<b>8.1%</b>	<b>\$ 5,648,100</b>	<b>\$ 5,709,800</b>	<b>\$ 5,779,500</b>	<b>\$ 5,880,300</b>

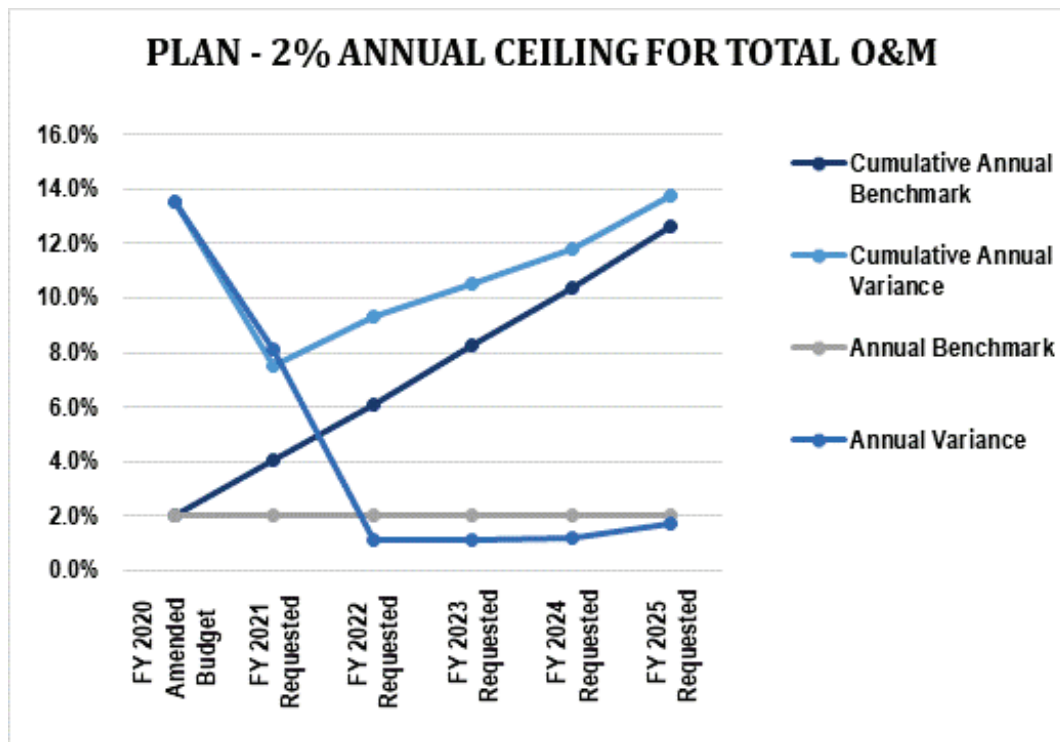


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Chief Administrative Officer	\$ 936,600	\$ 350,900	\$ 1,123,600	\$ 187,000	20.0%	\$ 1,131,600	\$ 1,139,700	\$ 1,154,700	\$ 1,163,100
Risk Management and Safety	4,231,100	2,675,300	4,462,700	231,600	5.5%	4,516,500	4,570,100	4,624,800	4,717,200
<b>Grand Total</b>	<b>\$ 5,167,700</b>	<b>\$ 3,026,200</b>	<b>5,586,300</b>	<b>\$ 418,600</b>	<b>8.1%</b>	<b>\$ 5,648,100</b>	<b>\$ 5,709,800</b>	<b>\$ 5,779,500</b>	<b>\$ 5,880,300</b>

### Alignment with Entity-wide Annual O&M Ceiling Goal of 2%

The Chief Administrative and Compliance Officer Area financial plan reflects a five-year overall increase of 13.8% which is slightly above the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes (based upon an annual 2% adjustment). The key increase is due to personnel costs, several staffing positions annual salaries were increased to bring them in par with the market. The second, is in contractual services for the retaining of Government Relations Services.



## Capital Outlay

Capital Outlay is not a component of the Chief Administrative and Compliance Officer Area.

## Line Item Budget and Financial Plan

The Chief Administrative and Compliance Officer Area five-year plan with a line item expense budget is listed below. Because of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>883001 - Chief Administrative Officer</b>	<b>\$ 728,800</b>	<b>\$ 936,600</b>	<b>\$ 350,900</b>	<b>\$ 1,123,600</b>	<b>\$ 1,131,600</b>	<b>\$ 1,139,700</b>	<b>\$ 1,154,700</b>	<b>\$ 1,163,100</b>
2.1 Salaries & Wages	457,800	500,000	240,600	522,100	522,100	522,100	522,100	522,100
2.4 Employee Benefits	87,200	133,600	50,200	140,300	143,000	145,700	148,400	151,100
4.2 Supplies & Other	9,700	3,000	3,400	6,100	6,200	6,300	6,300	6,300
Memberships, Licenses & Subscriptions	-	-	500	-	-	-	-	-
Training and Internal Meetings	2,700	2,000	900	2,100	2,100	2,200	2,200	2,200
Travel	7,000	1,000	2,000	4,000	4,100	4,100	4,100	4,100
4.3 Contractual Services	174,100	300,000	56,700	455,100	460,300	465,600	477,900	483,600
<b>883401 - Risk Management and Safety</b>	<b>3,772,000</b>	<b>4,231,100</b>	<b>2,675,300</b>	<b>4,462,700</b>	<b>4,516,500</b>	<b>4,570,100</b>	<b>4,624,800</b>	<b>4,717,200</b>
2.1 Salaries & Wages	303,600	466,600	192,500	622,000	622,000	622,000	622,000	622,000
2.4 Employee Benefits	71,900	133,100	56,400	184,600	188,200	191,700	195,300	198,800
4.2 Supplies & Other	8,400	20,100	10,800	22,000	22,000	22,000	22,000	22,000
Operating Supplies	8,400	5,100	9,600	7,000	7,000	7,000	7,000	7,000
Mileage and Parking	-	-	400	-	-	-	-	-
Tuition Refund	-	-	800	-	-	-	-	-
Training and Internal Meetings	-	15,000	-	15,000	15,000	15,000	15,000	15,000
4.3 Contractual Services	3,388,100	3,611,300	2,415,600	3,634,100	3,684,300	3,734,400	3,785,500	3,874,400
<b>Grand Total</b>	<b>\$ 4,500,800</b>	<b>\$ 5,167,700</b>	<b>\$ 3,026,200</b>	<b>\$ 5,586,300</b>	<b>\$ 5,648,100</b>	<b>\$ 5,709,800</b>	<b>\$ 5,779,500</b>	<b>\$ 5,880,300</b>



## Highlights

The General Counsel Area presently is leading GLWA in several strategic initiatives.

- ❖ **Work collaboratively with GLWA customers to secure resolutions supporting GLWA's Industrial Pretreatment Program (IPP)**  
 Continue the rollout of IPP to communities and secure resolutions from communities as required by state law
- ❖ **Create a Best Practices Manual**  
 Ensure consistent representation of the Authority in contractual, real estate, employment and litigation matters
- ❖ **Develop GLWA templates**  
 Modernize the contractual relationship with our vendors with GLWA contract templates

The table below shows how the general counsel area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
General Counsel Strategic Initiatives	Work collaboratively with GLWA customers to secure resolutions supporting GLWA's Industrial Pretreatment Program (IPP)			x		x	x	x		x		x
	Create a Best Practices Manual				x	x	x	x		x	x	
	Develop GLWA templates				x	x	x	x				

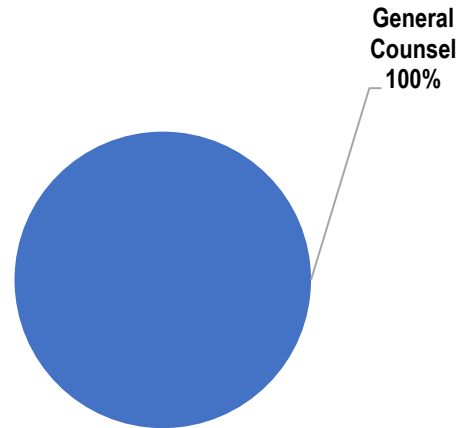
## Organization

The General Counsel Area consists of a single team.

### ❖ General Counsel

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

## FY 2021 REQUEST BY TEAM

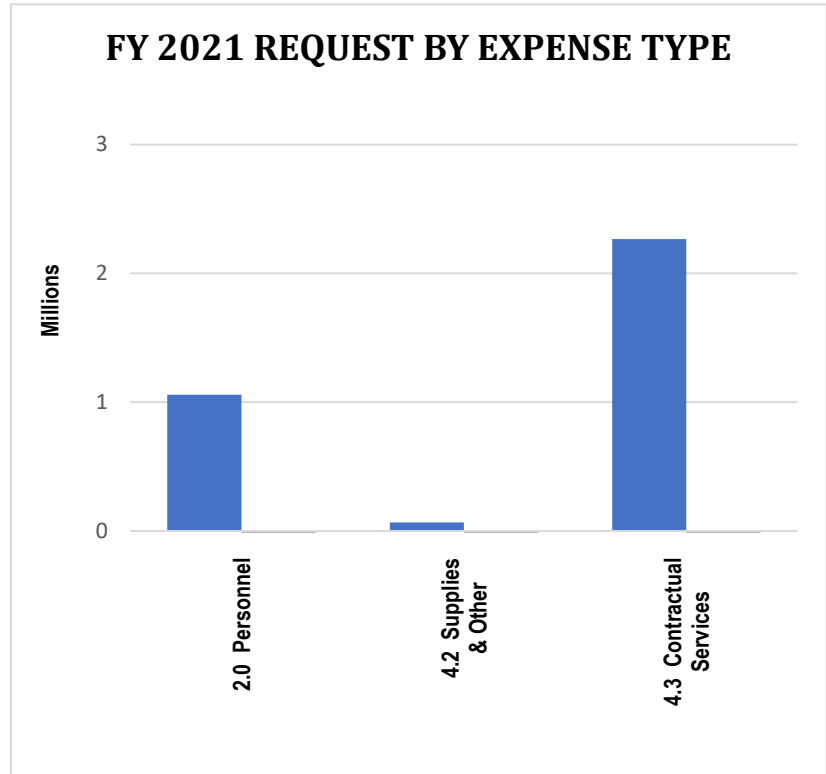


## Expense Categories

There are three major categories of General Counsel expenses in the Operations and Maintenance Budget as listed below.

- ❖ Personnel Costs
- ❖ Supplies & Other
- ❖ Contractual Services

Contractual Services is the highest expense category and for FY 2021 it is remaining consistent with prior and future budget years. This account contains the outside counsel for a wide range of matters including, expert witnesses, environmental, labor, contract review, land matters, non-transactional bond counsel, and other matters.



## Biennial Budget Request

The biennial budget reflects an overall 2.4 percent increase in FY 2021 as a result of General Counsel initiatives to handle more matters in house and use some insurance carriers who have panel counsel lists for handling GLWA claims. The negotiated rates with these insurance companies are below market rate, which is keeping the contractual services expenses to a minimum.

### Biennial Budget Request by Expense Category

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 817,800	\$ 941,400	\$ 488,500	\$ 971,900	\$ 30,500	3.2%	\$ 975,800
4.2 Supplies & Other	24,100	78,400	17,800	79,900	1,500	1.9%	81,500
4.3 Contractual Services	1,164,700	2,019,100	953,400	2,059,400	40,300	2.0%	2,100,500
<b>Grand Total</b>	<b>\$ 2,006,600</b>	<b>\$ 3,038,900</b>	<b>\$ 1,459,700</b>	<b>\$ 3,111,200</b>	<b>\$ 72,300</b>	<b>2.4%</b>	<b>\$ 3,157,800</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
General Counsel	\$ 2,006,600	\$ 3,038,900	\$ 1,459,700	\$ 3,111,200	\$ 72,300	2.4%	\$ 3,157,800
<b>Grand Total</b>	<b>\$ 2,006,600</b>	<b>\$ 3,038,900</b>	<b>\$ 1,459,700</b>	<b>\$ 3,111,200</b>	<b>\$ 72,300</b>	<b>2.4%</b>	<b>\$ 3,157,800</b>

## Personnel Budget

General Counsel consists of seven positions for FY 2021, which is staying consistent with the FY 2020 staffing level.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
General Counsel	7.00	7.00	7.00	7.00	7.00	7.00	7.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

### *Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
General Counsel	7.00	7.00	7.00	7.00	7.00	7.00	7.00

*Personnel Budget* - The table below presents the General Counsel personnel budget which consists of the following expense categories: Salaries & Wages Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Administrative Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

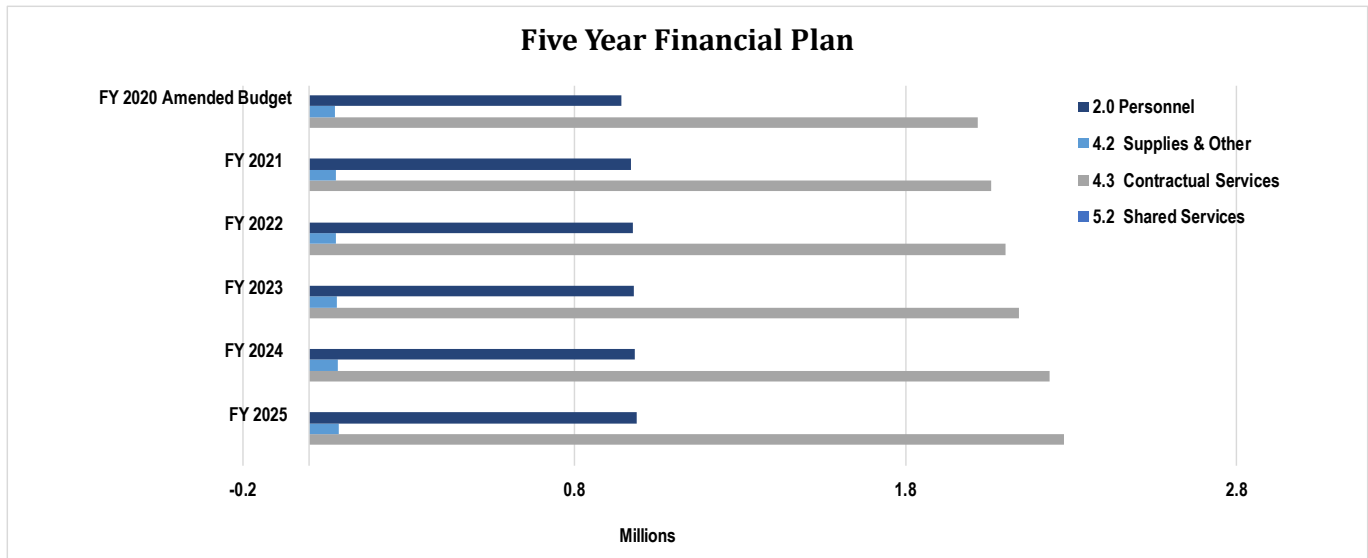
### *Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
General Counsel	\$ 941,400	\$ 971,900	\$ 975,800	\$ 979,700	\$ 983,700	\$ 987,600

## Five-Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 941,400	\$ 488,500	\$ 971,900	\$ 30,500	3.2%	\$ 975,800	\$ 979,700	\$ 983,700	\$ 987,600
4.2 Supplies & Other	78,400	17,800	79,900	1,500	1.9%	81,500	83,000	85,900	87,700
4.3 Contractual Services	2,019,100	953,400	2,059,400	40,300	2.0%	2,100,500	2,142,400	2,234,300	2,279,000
<b>Grand Total</b>	<b>\$ 3,038,900</b>	<b>\$ 1,459,700</b>	<b>\$ 3,111,200</b>	<b>\$ 72,300</b>	<b>2.4%</b>	<b>\$ 3,157,800</b>	<b>\$ 3,205,100</b>	<b>\$ 3,303,900</b>	<b>\$ 3,354,300</b>

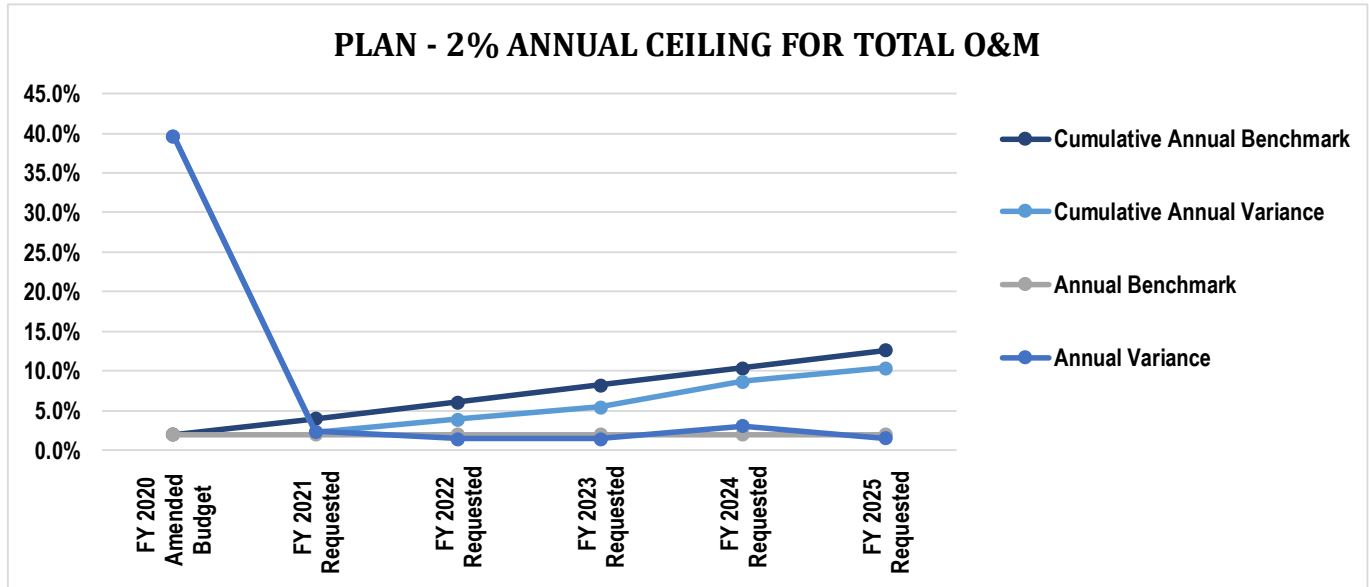


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
General Counsel	\$ 3,038,900	\$ 1,459,700	\$ 3,111,200	\$ 72,300	2.4%	\$ 3,157,800	\$ 3,205,100	\$ 3,303,900	\$ 3,354,300
<b>Grand Total</b>	<b>\$ 3,038,900</b>	<b>\$ 1,459,700</b>	<b>\$ 3,111,200</b>	<b>\$ 72,300</b>	<b>2.4%</b>	<b>\$ 3,157,800</b>	<b>\$ 3,205,100</b>	<b>\$ 3,303,900</b>	<b>\$ 3,354,300</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The General Counsel Area financial plan reflects a five-year overall increase of 10.4% which is well within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes based upon an annual 2% adjustment.



**Capital Outlay**

Capital Outlay is not a component of the General Counsel Area.

## Line Item Budget and Financial Plan

The General Counsel five-year plan with a line item expense budget is listed below. Because of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>883101 - General Counsel</b>	<b>\$ 2,006,600</b>	<b>\$ 3,038,900</b>	<b>\$ 1,459,700</b>	<b>\$ 3,111,200</b>	<b>\$ 3,157,800</b>	<b>\$ 3,205,100</b>	<b>\$ 3,303,900</b>	<b>\$ 3,354,300</b>
2.1 Salaries & Wages	684,600	745,900	394,500	768,400	768,400	768,400	768,400	768,400
2.4 Employee Benefits	133,200	195,500	94,000	203,500	207,400	211,300	215,300	219,200
4.2 Supplies & Other	24,100	78,200	17,800	79,900	81,500	83,000	85,900	87,700
Memberships, Licenses & Subscriptions	5,100	8,100	4,600	12,300	12,500	12,700	14,000	14,300
Office Supplies	8,800	8,800	1,100	5,200	5,300	5,400	6,000	6,100
Postage	-	2,800	-	2,800	2,900	2,900	3,000	3,100
Mileage and Parking	400	-	-	-	-	-	-	-
Training and Internal Meetings	6,100	43,500	5,200	44,600	45,800	47,000	47,900	48,900
Travel	3,700	15,000	6,900	15,000	15,000	15,000	15,000	15,300
<b>4.3 Contractual Services</b>	<b>1,164,700</b>	<b>2,019,300</b>	<b>953,400</b>	<b>2,059,400</b>	<b>2,100,500</b>	<b>2,142,400</b>	<b>2,234,300</b>	<b>2,279,000</b>
Contractual Operating Services	-	200	300	-	-	-	-	-
Legal	1,164,700	2,019,100	953,100	2,059,400	2,100,500	2,142,400	2,234,300	2,279,000
<b>Grand Total</b>	<b>\$ 2,006,600</b>	<b>\$ 3,038,900</b>	<b>\$ 1,459,700</b>	<b>\$ 3,111,200</b>	<b>\$ 3,157,800</b>	<b>\$ 3,205,100</b>	<b>\$ 3,303,900</b>	<b>\$ 3,354,300</b>



## Highlights

The Public Affairs Area is presently leading GLWA in several strategic initiatives.

❖ **Grow and Enhance GLWA's Brand Awareness/Recognition**

Continue implementation of a brand awareness campaign to heighten knowledge of GLWA, its mission and the value it brings to its member partners and southeast Michigan

❖ **Grow GLWA's Community Outreach Efforts**

Expose the GLWA brand to residents of our customer communities, support at least one community-focused event each year in Wayne, Oakland and Macomb Counties, as well as in an out-county community to which GLWA provides service

❖ **Provide Strategic Communication Counsel**

Working in partnership with the Board of Directors, produce one evening community Board Meeting each quarter in one of GLWA's founding communities

The table below shows how the public affairs area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Public Affairs Strategic Initiatives	Grow and Enhance GLWA's Brand Awareness/Recognition						x	x		x		x
	Grow GLWA's Community Outreach Efforts						x	x		x		x
	Provide Strategic Communication Counsel						x	x		x		x

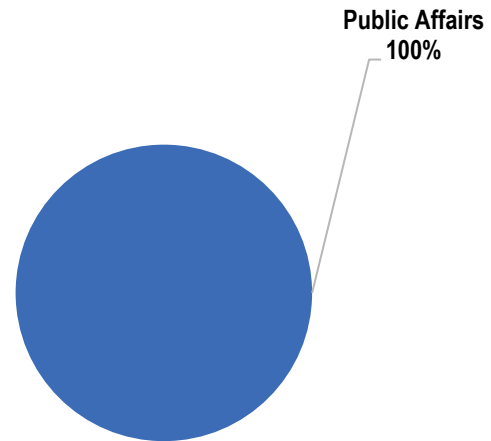
## Organization

The Public Affairs Area consists of a single team.

### ❖ Public Affairs

The Public Affairs Department is responsible for sharing the Authority's mission, vision, values and accomplishments with its stakeholders – both internal and external.

### FY 2021 REQUEST BY TEAM



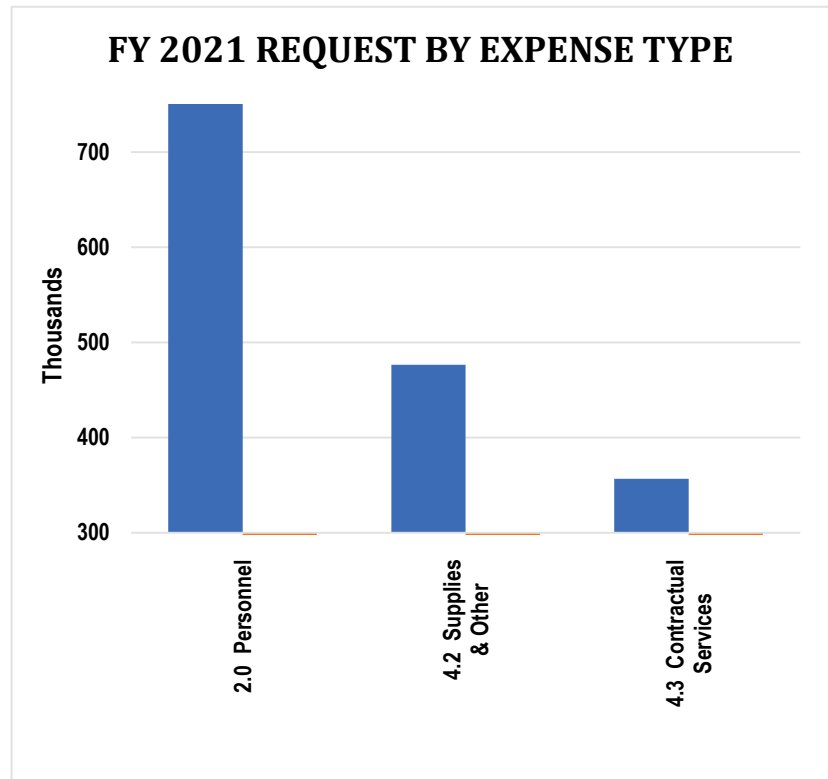
## Expense Categories

There are three major categories of Public Affairs expenses in the Operations and Maintenance Budget as listed below.

- ❖ Personnel
- ❖ Supplies & Other
- ❖ Contractual Services

Personnel is the highest expense category for Public Affairs, the cost center is now fully staffed for its current responsibilities with 8 FTE's.

Both Supplies & Other and Contractual Services are increasing from FY 2020 due to the continued implementation of the GLWA's Brand Awareness Campaign and a one-time request for funding for GLWA's 5<sup>th</sup> Year Anniversary celebration activities.



## Biennial Budget Request

The biennial budget reflects an overall 14.6 percent increase in FY 2021. Key factors that impact FY 2021 include the following.

- ❖ The increase in launching the new GLWA Brand Awareness Campaign is \$100,000.00.
- ❖ A one-time \$50,000.00 funding for GLWA's 5<sup>th</sup> Year Anniversary activities.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 526,000	\$ 701,500	\$ 324,300	\$ 755,100	\$ 53,600	7.6%	\$ 804,700
4.2 Supplies & Other	336,900	360,600	83,500	476,300	115,700	32.1%	432,000
4.3 Contractual Services	398,800	324,000	196,000	356,500	32,500	10.0%	356,500
<b>Grand Total</b>	<b>\$ 1,261,700</b>	<b>\$ 1,386,100</b>	<b>\$ 603,800</b>	<b>\$ 1,587,900</b>	<b>\$ 201,800</b>	<b>14.6%</b>	<b>\$ 1,593,200</b>

### Biennial Budget Request by Team

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 20201 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Public Affairs	\$ 1,261,700	\$ 1,386,100	\$ 603,800	\$ 1,587,900	\$ 201,800	14.6%	\$ 1,593,200
<b>Grand Total</b>	<b>\$ 1,261,700</b>	<b>\$ 1,386,100</b>	<b>\$ 603,800</b>	<b>\$ 1,587,900</b>	<b>\$ 201,800</b>	<b>14.6%</b>	<b>\$ 1,593,200</b>

### Personnel Budget

Public Affairs personnel consists of 8 positions for FY 2021. The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

#### Staffing Plan – Number of Positions

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
Public Affairs	7.00	8.00	8.00	8.00	8.00	8.00	8.00

*Full-time Equivalents* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

#### Full-time Equivalents

Team	Prior Year FY 2019 FTE's	Current Year FY 2020 FTE's	FY 2021 FTE's	FY 2022 FTE's	FY 2023 FTE's	FY 2024 FTE's	FY 2025 FTE's
Public Affairs	7.00	7.50	7.25	8.00	8.00	8.00	8.00

*Personnel Budget* - The following table presents the Public Affairs personnel budget which consists of the following expense categories: Salaries & Wages and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Administrative Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

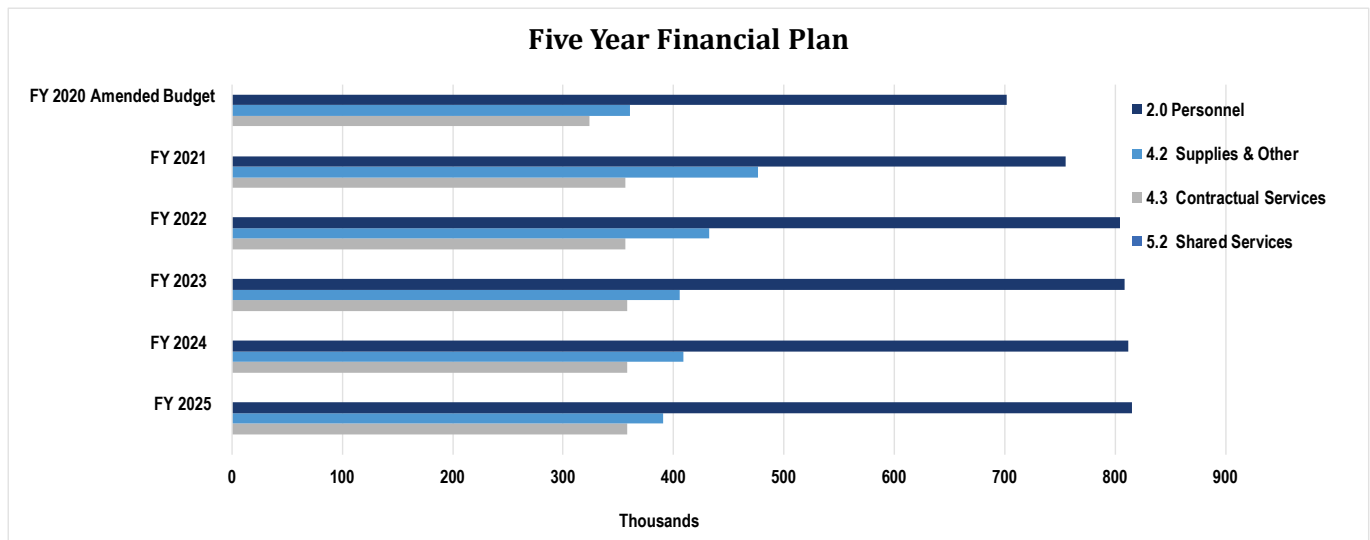
### Personnel Budget

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Public Affairs	\$ 701,500	\$ 755,100	\$ 804,700	\$ 808,200	\$ 811,800	\$ 815,300

### Five-Year Financial Plan

#### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 701,500	\$ 324,300	\$ 755,100	\$ 53,600	7.6%	\$ 804,700	\$ 808,200	\$ 811,800	\$ 815,300
4.2 Supplies & Other	360,600	83,500	476,300	115,700	32.1%	432,000	405,700	409,000	390,800
4.3 Contractual Services	324,000	196,000	356,500	32,500	10.0%	356,500	358,300	357,700	357,700
Grand Total	\$ 1,386,100	\$ 603,800	\$ 1,587,900	\$ 201,800	14.6%	\$ 1,593,200	\$ 1,572,200	\$ 1,578,500	\$ 1,563,800

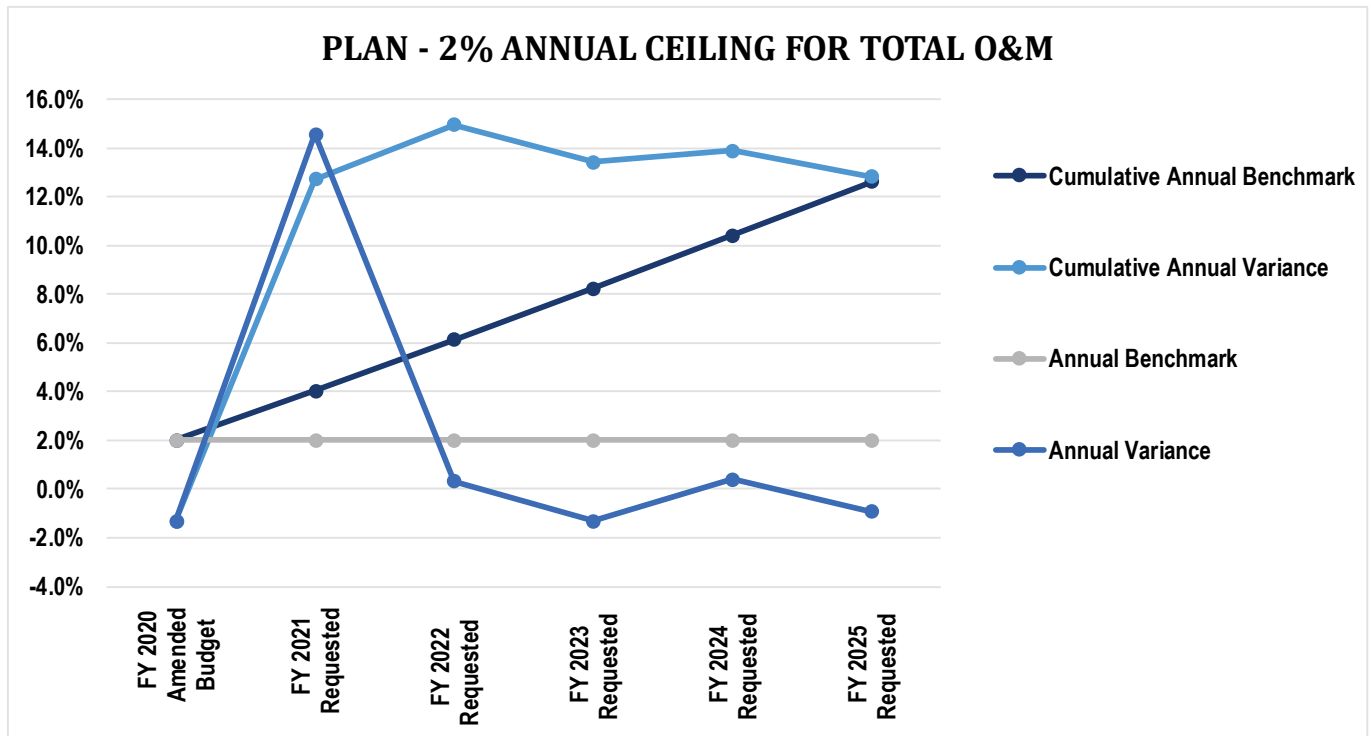


#### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Public Affairs	\$ 1,386,100	\$ 603,800	\$ 1,587,900	\$ 201,800	14.6%	\$ 1,593,200	\$ 1,572,200	\$ 1,578,500	\$ 1,563,800
Grand Total	\$ 1,386,100	\$ 603,800	\$ 1,587,900	\$ 201,800	14.6%	\$ 1,593,200	\$ 1,572,200	\$ 1,578,500	\$ 1,563,800

### *Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Public Affairs Group's financial plan reflects a five-year overall increase of 12.8% which is slightly above the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes based upon an annual 2% adjustment. The increase is the result of launching the new GLWA Brand Awareness Campaign and a one-time request for funding for GLWA's 5th Year Anniversary celebration activities.



### **Capital Outlay**

Public Affairs capital outlay is funded by the Improvement & Extension budget..

### *Five-Year Capital Outlay by Asset Category*

Asset Category	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 75,000	\$ 7,500	\$ 27,000	\$ 15,000	\$ 33,000	\$ 5,000
Computers & IT	75,000	7,500	27,000	15,000	33,000	5,000
<b>Grand Total</b>	<b>\$ 75,000</b>	<b>\$ 7,500</b>	<b>\$ 27,000</b>	<b>\$ 15,000</b>	<b>\$ 33,000</b>	<b>\$ 5,000</b>

*Five-Year Capital Outlay by Funding Source*

Funding Source	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Improvement & Extension	\$ 75,000	\$ 7,500	\$ 27,000	\$ 15,000	\$ 33,000	\$ 5,000
<b>Grand Total</b>	<b>\$ 75,000</b>	<b>\$ 7,500</b>	<b>\$ 27,000</b>	<b>\$ 15,000</b>	<b>\$ 33,000</b>	<b>\$ 5,000</b>

*Five-Year Capital Outlay by Team*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Public Affairs	\$ 75,000	\$ 7,500	\$ 27,000	\$ 15,000	\$ 33,000	\$ 5,000
<b>Grand Total</b>	<b>\$ 75,000</b>	<b>\$ 7,500</b>	<b>\$ 27,000</b>	<b>\$ 15,000</b>	<b>\$ 33,000</b>	<b>\$ 5,000</b>

**Line Item Budget and Financial Plan**

The five-year plan with a line item expense budget begins below. Because many of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>881101 - Public Affairs</b>	<b>\$ 1,261,700</b>	<b>\$ 1,386,100</b>	<b>\$ 603,800</b>	<b>\$ 1,587,900</b>	<b>\$ 1,593,200</b>	<b>\$ 1,572,200</b>	<b>\$ 1,578,500</b>	<b>\$ 1,563,800</b>
2.1 Salaries & Wages	416,500	532,000	249,100	584,000	617,400	617,400	617,400	617,400
2.4 Employee Benefits	109,500	169,500	75,200	171,100	187,300	190,800	194,400	197,900
4.2 Supplies & Other	336,900	360,600	83,500	476,300	432,000	405,700	409,000	390,800
Mileage and Parking	-	3,100	-	-	-	-	-	-
Memberships, Licenses & Subscriptions	200	300	100	-	-	-	-	-
Office Supplies	6,800	6,200	3,300	6,300	6,500	6,600	6,700	6,900
Operating Supplies	91,700	101,500	40,800	122,500	76,000	77,700	79,400	81,200
Printing	6,100	20,400	-	41,600	42,400	43,300	43,700	22,300
Training and Internal Meetings	9,700	9,200	4,500	12,000	12,300	12,600	12,900	13,200
Travel	8,600	12,200	8,300	12,200	12,500	12,700	13,000	13,300
Miscellaneous Expense	2,000	1,200	-	1,200	1,300	1,300	1,300	1,400
Advertising	76,000	180,000	12,200	280,500	281,000	251,500	252,000	252,500
Capital Outlay less than \$5,000	135,800	26,500	14,300	-	-	-	-	-
<b>4.3 Contractual Services</b>	<b>398,800</b>	<b>324,000</b>	<b>196,000</b>	<b>356,500</b>	<b>356,500</b>	<b>358,300</b>	<b>357,700</b>	<b>357,700</b>
<b>Grand Total</b>	<b>\$ 1,261,700</b>	<b>\$ 1,386,100</b>	<b>\$ 603,800</b>	<b>\$ 1,587,900</b>	<b>\$ 1,593,200</b>	<b>\$ 1,572,200</b>	<b>\$ 1,578,500</b>	<b>\$ 1,563,800</b>

## Highlights

The Organization Development Area presently is leading GLWA in several strategic initiatives.

### ❖ **Apprentice Program**

A new program EICT-E is starting in the first quarter of FY 2020; the initial program, EICT-I, will have the graduation of the first class in January 2020. The second cohort will graduate in March, both at a 100% graduation rate

### ❖ **Ceridian Reimplementation**

Organizational Development is now responsible for Managed Services that will affect Organizational Development, Financial Services and Information Technology in terms of increased responsibilities and in our case, staffing

### ❖ **Compensation Team**

Organizational Development is in the process of establishing a new in-house Compensation team.

### ❖ **GLWA Handbook**

Review and update "The Way We Work"

The table below shows how the organization development area strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Organizational Development Strategic Initiatives	Apprentice Program			x	x	x	x		x		x	x
	Ceridian Reimplementation		x	x	x	x	x					
	Compensation Team		x				x				x	
	GLWA Handbook					x	x				x	



## Organization

The Organizational Development Area consists of a single team.

- ❖ **Organizational Development (OD)** Provides recruitment, retention, training, workplace policies, assistance, guidance, benefit coordination, and quality assurance support services to GLWA and its employees. OD provides opportunities for employees to develop and optimize their talent and deployment of their talent within the organization to support a motivated integrated workforce team that effectively delivers quality, compliant water services to GLWA customers.



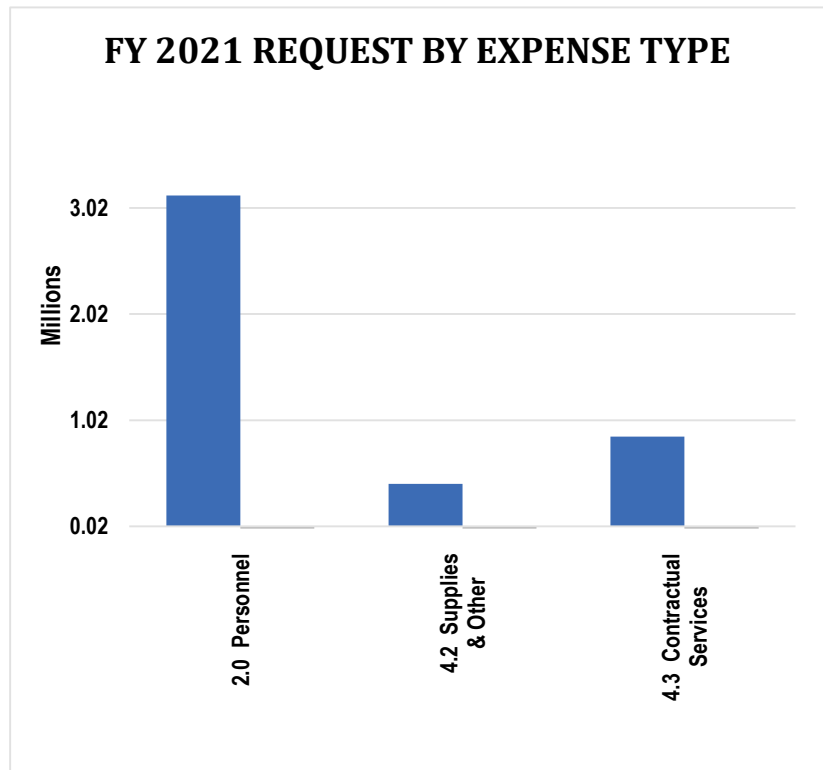
## Expense Categories

There are three major categories of Organizational Development expenses in the Operations and Maintenance Budget as listed below.

- ❖ Personnel Costs
- ❖ Supplies & Other
- ❖ Contractual Services

Personnel Costs is the highest expense category for OD. With the launch of the One Water Institute (OWI), OD will be adding an additional two staffing positions in the training area to provide diverse training opportunities throughout GLWA.

Contractual Services is the second highest expense category which includes the contracts for OWI training specialists and online facilitation services.



## Biennial Budget Request

The biennial budget reflects a net \$54,800 increase in FY 2021. Key factors that impact FY 2021 include the following.

- ❖ To support the OWI two accounts are increasing; the personnel account is increasing by \$274,600 to hire two staffing positions in the training area to provide diverse training opportunities throughout GLWA.
- ❖ The supplies & other account is increasing by \$106,700 in FY 2021 for additional training of the GLWA staff and the supplies to operate the OWI.
- ❖ The contractual services account is decreasing by \$326,500 due to a change in philosophy to teach the OWI courses. The initial plan in FY 2020 was to hire trainers on a contractual services basis to teach each course. After further analysis it was determined the OD Trainers would be able to teach the courses, provided they receive additional training and receive the proper certifications for each course.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 2,411,600	\$ 2,861,100	\$ 1,324,800	\$ 3,135,700	\$ 274,600	9.6%	\$ 3,149,700
4.2 Supplies & Other	222,800	312,300	124,900	419,000	106,700	34.2%	427,000
4.3 Contractual Services	580,000	1,193,000	174,000	866,500	(326,500)	-27.4%	1,131,500
5.2 Shared Services	(7,100)	-	-	-	-	0.0%	-
<b>Grand Total</b>	<b>\$ 3,207,300</b>	<b>\$ 4,366,400</b>	<b>\$ 1,623,700</b>	<b>\$ 4,421,200</b>	<b>\$ 54,800</b>	<b>1.3%</b>	<b>\$ 4,708,200</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Organizational Development	\$ 3,207,300	\$ 4,366,400	\$ 1,623,700	\$ 4,421,200	\$ 54,800	1.3%	\$ 4,708,200
<b>Grand Total</b>	<b>\$ 3,207,300</b>	<b>\$ 4,366,400</b>	<b>\$ 1,623,700</b>	<b>\$ 4,421,200</b>	<b>\$ 54,800</b>	<b>1.3%</b>	<b>\$ 4,708,200</b>

## **Personnel Budget**

Organizational Development personnel consists of 33 positions for FY 2021, which is an increase of two staff positions from FY 2020. The increase in staffing is to support the One Water Institute. Organizational Development will add one Professional Administrative Analyst and One Management Professional in the first quarter of FY 2021.

The following tables provide three alternate views of the staffing plans and budget.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### *Staffing Plan – Number of Positions*

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
Organizational Development	28.00	31.00	33.00	33.00	33.00	33.00	33.00

*Full-time Equivalent* - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs are consistent.

*Full-time Equivalents*

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
Organizational Development	28.00	31.00	33.00	33.00	33.00	33.00	33.00

*Personnel Budget* - The table below presents the Organizational Development personnel budget which consists of the following expense categories: Salaries & Wages, Overtime and Employee Benefits. The values for the personnel budget are based on the full-time equivalents table above using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Administrative Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

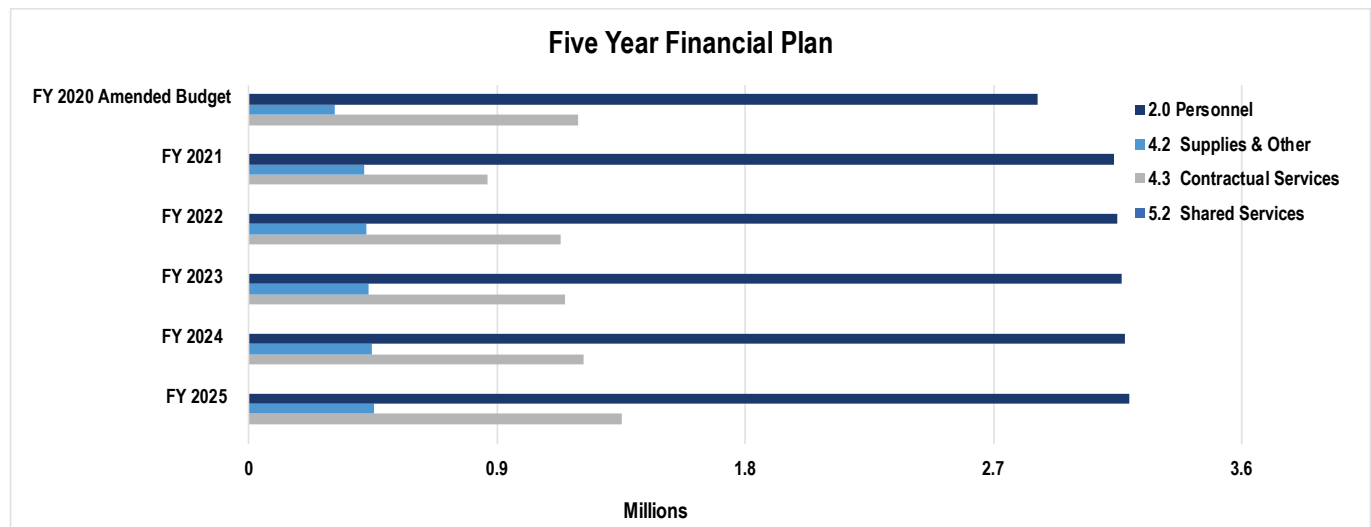
*Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Organizational Development	\$ 2,861,100	\$ 3,135,700	\$ 3,149,700	\$ 3,163,800	\$ 3,177,900	\$ 3,191,900

## Five-Year Financial Plan

### Five-Year Financial Plan by Expense Category

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 2,861,100	\$ 1,324,800	\$ 3,135,700	\$ 274,600	9.6%	\$ 3,149,700	\$ 3,163,800	\$ 3,177,900	\$ 3,191,900
4.2 Supplies & Other	312,300	124,900	419,000	106,700	34.2%	427,000	435,400	444,100	452,900
4.3 Contractual Services	1,193,000	174,000	866,500	(326,500)	-27.4%	1,131,500	1,147,700	1,213,000	1,350,300
<b>Grand Total</b>	<b>\$ 4,366,400</b>	<b>\$ 1,623,700</b>	<b>\$ 4,421,200</b>	<b>\$ 54,800</b>	<b>1.3%</b>	<b>\$ 4,708,200</b>	<b>\$ 4,746,900</b>	<b>\$ 4,835,000</b>	<b>\$ 4,995,100</b>



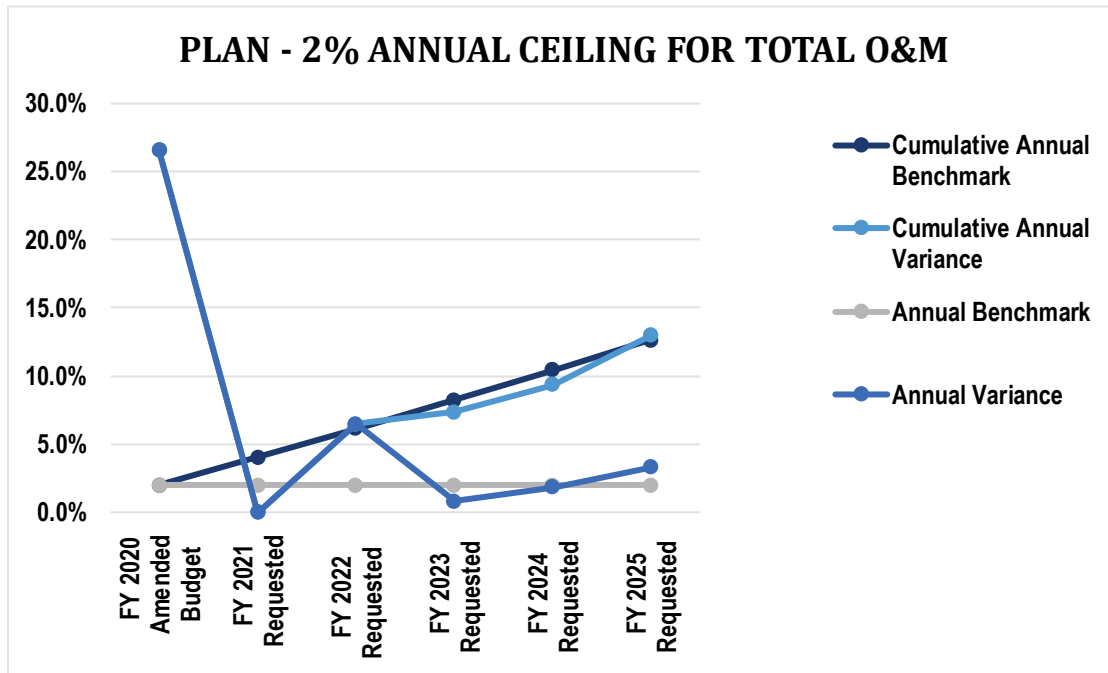
### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Organizational Development	\$ 4,366,400	\$ 1,623,700	\$ 4,421,200	\$ 54,800	1.3%	\$ 4,708,200	\$ 4,746,900	\$ 4,835,000	\$ 4,995,100
<b>Grand Total</b>	<b>\$ 4,366,400</b>	<b>\$ 1,623,700</b>	<b>\$ 4,421,200</b>	<b>\$ 54,800</b>	<b>1.3%</b>	<b>\$ 4,708,200</b>	<b>\$ 4,746,900</b>	<b>\$ 4,835,000</b>	<b>\$ 4,995,100</b>

### Alignment with Entity-wide Annual O&M Ceiling Goal of 2%

The Organizational Development Group's financial plan reflects a five-year overall increase of 14.4% which is slightly above the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes based upon an annual 2% adjustment.

This increase is not unexpected given the extensive training the One Water Institute will provide to GLWA and the Member Community as a whole. While there is an increased expense in the short-term, it is believed that the implementation of the One Water Institute will make GLWA a leader in the industry.



## Capital Outlay

Capital outlay is not a component of the Organizational Development Area.

## Line Item Budget and Financial Plan

The Organizational Development five-year plan with a line item expense budget is listed below. Because of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 11.30.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>883201 - Organizational Development</b>	<b>\$ 3,207,300</b>	<b>\$ 4,366,400</b>	<b>\$ 1,623,700</b>	<b>\$ 4,421,200</b>	<b>\$ 4,708,200</b>	<b>\$ 4,746,900</b>	<b>\$ 4,835,000</b>	<b>\$ 4,995,100</b>
2.1 Salaries & Wages	1,873,300	2,194,100	990,300	2,404,300	2,404,300	2,404,300	2,404,300	2,404,300
2.3 Overtime	1,900	5,000	2,200	-	-	-	-	-
2.4 Employee Benefits	536,400	662,000	332,300	731,400	745,400	759,500	773,600	787,600
4.2 Supplies & Other	222,700	312,300	124,900	419,000	427,000	435,400	444,100	452,900
Memberships, Licenses & Subscriptions	7,200	2,500	1,100	7,700	7,800	8,000	8,200	8,300
Office Supplies	35,400	24,500	12,200	59,200	60,300	61,500	62,800	64,000
Operating Supplies	37,100	79,000	4,400	96,900	98,800	100,800	102,800	104,900
Printing	1,600	20,000	-	20,200	20,400	20,600	20,800	21,200
Training and Internal Meetings	118,100	100,500	70,000	93,800	95,700	97,600	99,600	101,600
Travel	11,700	25,000	10,500	43,900	44,700	45,600	46,600	47,500
Mileage and Parking	1,400	2,000	900	2,200	2,200	2,300	2,300	2,400
Tuition Refund	10,100	12,000	2,900	12,200	12,500	12,700	13,000	13,200
Advertising	100	46,800	22,900	82,900	84,600	86,300	88,000	89,800
<b>4.3 Contractual Services</b>	<b>580,000</b>	<b>1,193,000</b>	<b>174,000</b>	<b>866,500</b>	<b>1,131,500</b>	<b>1,147,700</b>	<b>1,213,000</b>	<b>1,350,300</b>
Contractual Operating Services	-	1,118,000	162,500	866,500	1,131,500	1,147,700	1,213,000	1,350,300
Contractual Professional Services	-	75,000	11,500	-	-	-	-	-
<b>5.2 Shared Services</b>	<b>(7,000)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>	<b>\$ 3,207,300</b>	<b>\$ 4,366,400</b>	<b>\$ 1,623,700</b>	<b>\$ 4,421,200</b>	<b>\$ 4,708,200</b>	<b>\$ 4,746,900</b>	<b>\$ 4,835,000</b>	<b>\$ 4,995,100</b>

## Highlights

The Financial Services Area is engaged in several strategic initiatives – both as leader and key participant in entity-wide initiatives.

❖ **Financial operations**

Rollout of automation to reduce the inefficiencies of transactional and processing times to expand analytical capacity

❖ **Business support**

Expand the Small Business Initiative, explore utility cooperative procurement sponsorship, and vendor quality management

❖ **Cross-functional collaboration in key initiatives**

Strategic asset management, enterprise asset management, and capital program management

The table below shows how the financial services strategic initiatives relate to the organizational strategic goals.

		Organizational Strategic Goals										
		Bond credit rating of AA	Financial Viability	Product Quality	Infrastructure Strategy and Performance	Operational Optimization	Enterprise Resiliency	Customer Satisfaction	Water Resource Sustainability	Stakeholder Understanding and Support	Employee and Leadership Development	Community Sustainability
Financial Services Strategic Initiatives	Rollout of automation to reduce the inefficiencies of transactional and processing times to expand analytical capacity	x	x			x	x					
	Expand the Small Business Initiative, explore utility cooperative procurement sponsorship, and vendor quality management		x	x		x	x					x
	Strategic asset management, enterprise asset management, and capital program management	x	x	x	x	x	x	x	x	x		x



## Organization

The Financial Services Area consists of three groups.

### ❖ CFO Services

Plans and directs all strategic financial planning, compliance, internal audit, and intergovernmental activities

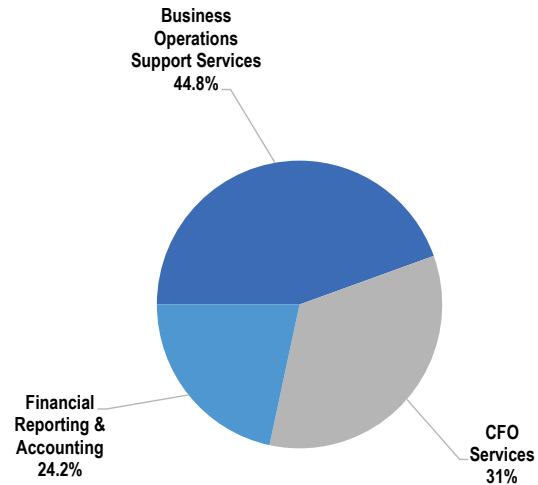
### ❖ Business Operation Support Services

Responsible for procurement, inventory management, and transformational business support

### ❖ Financial Reporting & Accounting

Construction, general ledger, accounts payable, payroll, asset management, and related activities

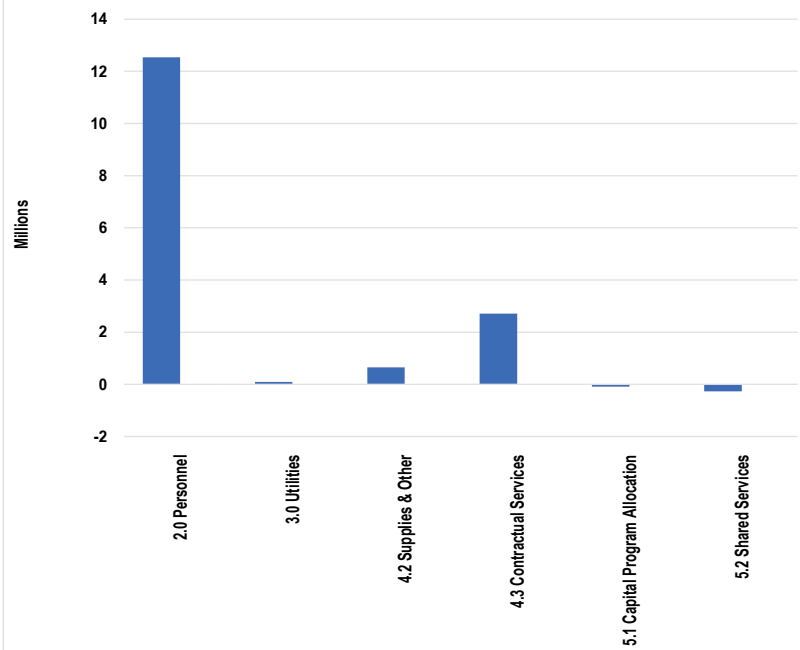
**FY 2021 REQUEST BY TEAM**



## Expense Categories

The primary expense category in the Financial Services area is Personnel Services. The second largest category is Contractual Services for project management support, and other special projects, studies, and audits.

**FY 2021 REQUEST BY EXPENSE TYPE**



## Biennial Budget Request

The biennial budget reflects an overall increase that started in FY 2020 as a result of the ramp up of the strategic initiatives defined above.

### *Biennial Budget Request by Expense Category*

Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
2.0 Personnel	\$ 10,531,000	\$ 11,359,400	\$ 5,592,200	\$ 12,536,600	\$ 1,177,200	10.4%	\$ 12,583,500
3.0 Utilities	59,500	23,200	13,300	94,800	71,600	308.6%	96,500
4.2 Supplies & Other	391,100	526,700	154,000	654,700	128,000	24.3%	653,400
4.3 Contractual Services	2,904,600	3,186,900	1,439,500	2,711,000	(475,900)	-14.9%	2,690,100
5.1 Capital Program Allocation	(90,700)	(78,500)	(12,300)	(84,900)	(6,400)	8.2%	(85,300)
5.2 Shared Services	(326,800)	(288,900)	(70,300)	(268,400)	20,500	-7.1%	(273,700)
<b>Grand Total</b>	<b>\$ 13,468,700</b>	<b>\$ 14,728,800</b>	<b>\$ 7,116,400</b>	<b>\$ 15,643,800</b>	<b>\$ 915,000</b>	<b>6.2%</b>	<b>\$ 15,664,500</b>

### *Biennial Budget Request by Team*

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>CFO Services</b>	<b>\$ 4,777,900</b>	<b>\$ 4,879,900</b>	<b>\$ 2,490,500</b>	<b>\$ 5,298,700</b>	<b>\$ 418,800</b>	<b>8.6%</b>	<b>\$ 5,265,000</b>
Chief Financial Officer	678,100	805,100	409,900	828,900	23,800	3.0%	831,800
Data Analytics & Internal Audit	633,700	618,200	306,400	750,500	132,300	21.4%	756,800
Financial Planning & Analysis	1,150,400	1,309,200	615,600	1,358,600	49,400	3.8%	1,369,400
Public Finance	1,147,400	967,000	504,200	1,014,300	47,300	4.9%	946,500
Reporting and Compliance	447,000	466,200	251,800	516,900	50,700	10.9%	519,200
Treasury	721,300	714,200	402,600	829,500	115,300	16.1%	841,300
<b>Business Operations Support Services</b>	<b>5,651,000</b>	<b>6,333,900</b>	<b>3,000,200</b>	<b>6,963,100</b>	<b>629,200</b>	<b>9.9%</b>	<b>6,989,500</b>
Procurement Director	2,596,200	2,678,300	1,344,700	3,111,600	433,300	16.2%	3,121,900
Logistics and Materials	1,691,400	1,970,900	975,700	1,921,300	(49,600)	-2.5%	1,934,400
Owners' Representative	615,800	639,100	299,900	590,300	(48,800)	-7.6%	594,200
Transformation	747,600	1,045,600	379,900	1,339,900	294,300	28.1%	1,339,000
<b>Financial Reporting &amp; Accounting</b>	<b>3,039,800</b>	<b>3,515,000</b>	<b>1,625,700</b>	<b>3,382,000</b>	<b>(133,000)</b>	<b>-3.8%</b>	<b>3,410,000</b>
<b>Grand Total</b>	<b>\$ 13,468,700</b>	<b>\$ 14,728,800</b>	<b>\$ 7,116,400</b>	<b>\$ 15,643,800</b>	<b>\$ 915,000</b>	<b>6.2%</b>	<b>\$ 15,664,500</b>

## Personnel Budget

The staffing plan provides for a steady state of 124 positions as of FY 2021. The staffing level is in the tables below.

*Staffing Plan* - The table below presents the number of positions in the plan. Each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant.

### Staffing Plan – Number of Positions

Team	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Financial Services Area</b>	<b>118.00</b>	<b>123.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>
<b>CFO Services</b>	<b>26.00</b>	<b>29.00</b>	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>	<b>30.00</b>
Chief Financial Officer	3.00	5.00	5.00	5.00	5.00	5.00	5.00
Data Analytics & Internal Audit	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Financial Planning & Analysis	8.00	9.00	9.00	9.00	9.00	9.00	9.00
Public Finance	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reporting and Compliance	4.00	4.00	5.00	5.00	5.00	5.00	5.00
Treasury	3.00	3.00	3.00	3.00	3.00	3.00	3.00
<b>Business Operations Support Services</b>	<b>65.00</b>	<b>67.00</b>	<b>68.00</b>	<b>68.00</b>	<b>68.00</b>	<b>68.00</b>	<b>68.00</b>
Logistics and Materials	23.00	24.00	24.00	24.00	24.00	24.00	24.00
Owners' Representative	5.00	6.00	5.00	5.00	5.00	5.00	5.00
Procurement Director	30.00	29.00	31.00	31.00	31.00	31.00	31.00
Transformation	7.00	8.00	8.00	8.00	8.00	8.00	8.00
<b>Financial Reporting &amp; Accounting</b>	<b>27.00</b>	<b>27.00</b>	<b>26.00</b>	<b>26.00</b>	<b>26.00</b>	<b>26.00</b>	<b>26.00</b>

*Full Time Equivalent*s - The table below presents “full-time equivalent” (FTE) staffing. FTE is based on the number of hours that the position is filled, or budgeted for, in a given year based upon a standard of 2,080 hours per year. For this budget area, the Staffing Plan and the FTEs project an increase over the next five years.

### Full Time Equivalent

Team	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Financial Services Area</b>	<b>114.25</b>	<b>119.25</b>	<b>122.00</b>	<b>122.00</b>	<b>122.00</b>	<b>122.00</b>	<b>122.00</b>
<b>CFO Services</b>	<b>26.00</b>	<b>29.00</b>	<b>29.50</b>	<b>29.50</b>	<b>29.50</b>	<b>29.50</b>	<b>29.50</b>
Chief Financial Officer	3.00	5.00	4.50	4.50	4.50	4.50	4.50
Data Analytics & Internal Audit	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Financial Planning & Analysis	8.00	9.00	9.00	9.00	9.00	9.00	9.00
Public Finance	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reporting and Compliance	4.00	4.00	5.00	5.00	5.00	5.00	5.00
Treasury	3.00	3.00	3.00	3.00	3.00	3.00	3.00
<b>Business Operations Support Services</b>	<b>63.25</b>	<b>64.25</b>	<b>67.50</b>	<b>67.50</b>	<b>67.50</b>	<b>67.50</b>	<b>67.50</b>
Logistics and Materials	23.00	23.25	24.00	24.00	24.00	24.00	24.00
Owners' Representative	4.25	6.00	5.00	5.00	5.00	5.00	5.00
Procurement Director	29.25	27.00	30.50	30.50	30.50	30.50	30.50
Transformation	6.75	8.00	8.00	8.00	8.00	8.00	8.00
<b>Financial Reporting &amp; Accounting</b>	<b>25.00</b>	<b>26.00</b>	<b>25.00</b>	<b>25.00</b>	<b>25.00</b>	<b>25.00</b>	<b>25.00</b>

*Personnel Budget* – The following table presents the Planning Services personnel budget which consists of the following expense categories: Salaries & Wages, Salaries & Wages – Workforce Development, Overtime, Employee Benefits and Contractual Transition Services. These values are based on the *Full Time Equivalents* in table 2 using current pay levels. Wage and benefit adjustments are based on merit increases and are included in the Unallocated Reserve line item for the Administrative Services Operating Area which is shown in detail in the Operating Financial Plan Introduction section.

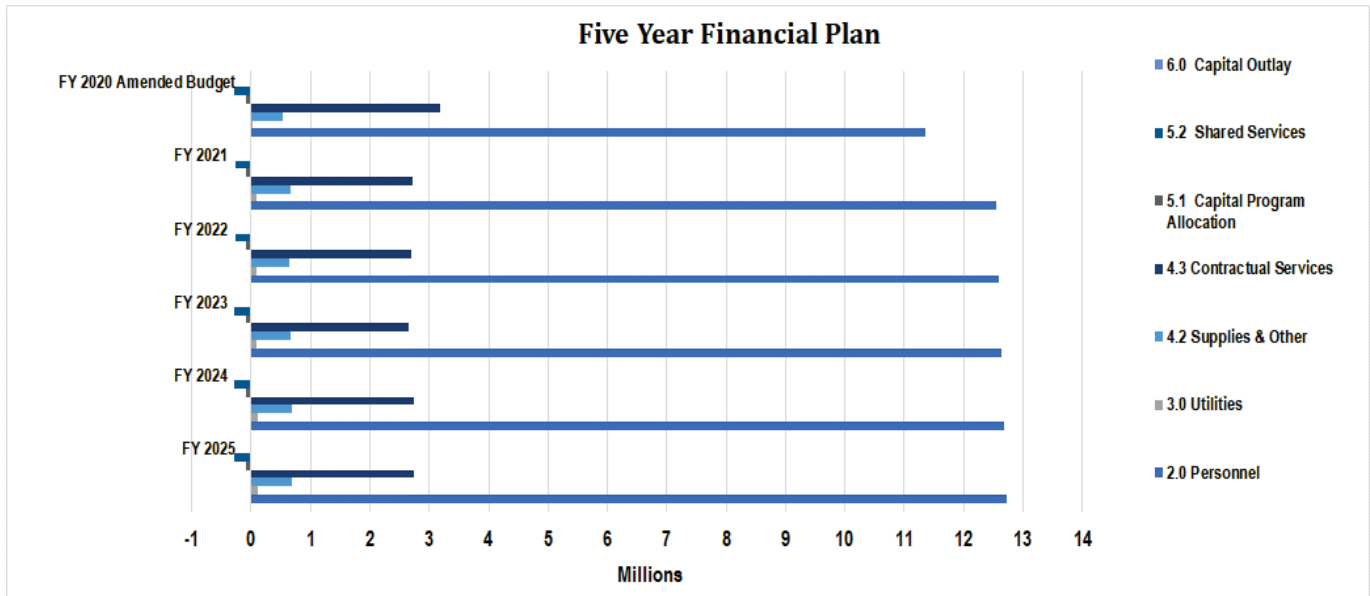
### *Personnel Budget*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Financial Services</b>	<b>12,016,100</b>	<b>12,536,600</b>	<b>12,583,500</b>	<b>12,630,100</b>	<b>12,677,000</b>	<b>12,723,700</b>
<b>CFO Services</b>	<b>3,501,300</b>	<b>3,645,500</b>	<b>3,658,200</b>	<b>3,670,700</b>	<b>3,683,400</b>	<b>3,696,000</b>
Chief Financial Officer	792,700	781,500	783,300	785,100	786,900	788,700
Data Analytics & Internal Audit	456,100	492,900	494,000	495,000	496,100	497,100
Financial Planning & Analysis	1,022,900	1,036,000	1,040,400	1,044,700	1,049,100	1,053,500
Public Finance	546,800	560,200	562,600	565,000	567,400	569,800
Reporting and Compliance	380,600	499,400	501,200	502,900	504,700	506,400
Treasury	302,200	275,500	276,700	278,000	279,200	280,500
<b>Business Operations Support</b>	<b>6,030,000</b>	<b>6,411,500</b>	<b>6,435,900</b>	<b>6,460,200</b>	<b>6,484,700</b>	<b>6,509,000</b>
Procurement Director	2,446,900	2,855,900	2,868,800	2,881,700	2,894,500	2,907,400
Logistics and Materials	1,510,500	1,681,200	1,689,600	1,698,000	1,706,500	1,714,900
Owners' Representative	680,900	583,500	586,000	588,400	590,900	593,300
Transformation	1,391,700	1,290,900	1,291,500	1,292,100	1,292,800	1,293,400
<b>Financial Reporting &amp; Accounting</b>	<b>2,484,800</b>	<b>2,479,600</b>	<b>2,489,400</b>	<b>2,499,200</b>	<b>2,508,900</b>	<b>2,518,700</b>

## Five Year Financial Plan

### *Five-Year Financial Plan by Expense Category*

Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
2.0 Personnel	\$ 11,359,400	\$ 5,592,200	\$ 12,536,600	\$ 1,177,200	10.4%	\$ 12,583,500	\$ 12,630,100	\$ 12,677,000	\$ 12,723,700
3.0 Utilities	23,200	13,300	94,800	71,600	308.6%	96,500	98,300	116,800	119,000
4.2 Supplies & Other	526,700	154,000	654,700	128,000	24.3%	653,400	666,000	677,400	688,600
4.3 Contractual Services	3,186,900	1,439,500	2,711,000	(475,900)	-14.9%	2,690,100	2,658,800	2,730,800	2,744,000
5.1 Capital Program Allocation	(78,500)	(12,300)	(84,900)	(6,400)	8.2%	(85,300)	(85,600)	(86,000)	(86,300)
5.2 Shared Services	(288,900)	(70,300)	(268,400)	20,500	-7.1%	(273,700)	(279,200)	(284,800)	(290,400)
<b>Grand Total</b>	<b>\$ 14,728,800</b>	<b>\$ 7,116,400</b>	<b>\$ 15,643,800</b>	<b>\$ 915,000</b>	<b>6.2%</b>	<b>\$ 15,664,500</b>	<b>\$ 15,688,400</b>	<b>\$ 15,831,200</b>	<b>\$ 15,898,600</b>

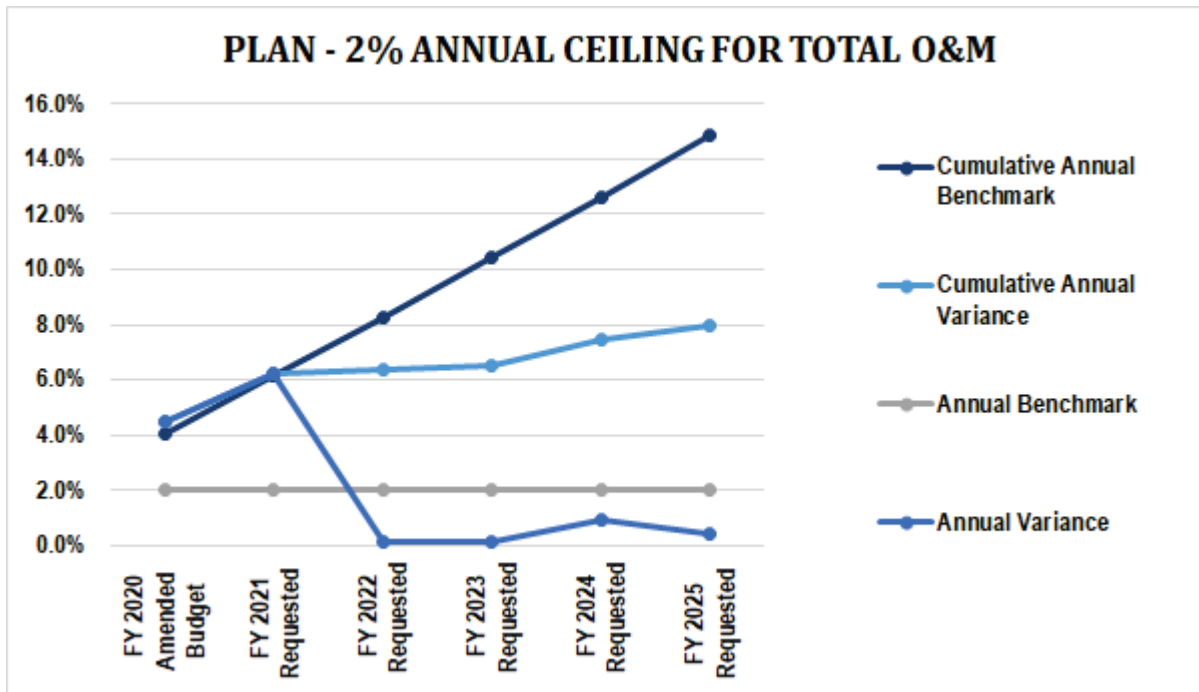


### Five-Year Financial Plan by Team

Team	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department. Requested
<b>CFO Services</b>	\$ 4,879,900	\$ 2,490,500	\$ 5,298,700	\$ 418,800	8.6%	\$ 5,265,000	\$ 5,226,500	\$ 5,294,600	\$ 5,302,000
Chief Financial Officer	805,100	409,900	828,900	23,800	3.0%	831,800	834,500	837,300	840,100
Financial Planning & Analysis	1,309,200	615,600	1,358,600	49,400	3.8%	1,369,400	1,380,500	1,391,600	1,402,800
Reporting and Compliance	466,200	251,800	516,900	50,700	10.9%	519,200	521,100	523,400	525,300
Data Analytics & Internal Audit	618,200	306,400	750,500	132,300	21.4%	756,800	763,000	769,600	775,900
Public Finance	967,000	504,200	1,014,300	47,300	4.9%	946,500	873,700	906,300	878,500
Treasury	714,200	402,600	829,500	115,300	16.1%	841,300	853,700	866,400	879,400
<b>Business Operations Support Services</b>	<b>6,333,900</b>	<b>3,000,200</b>	<b>6,963,100</b>	<b>629,200</b>	<b>9.9%</b>	<b>6,989,500</b>	<b>7,031,000</b>	<b>7,083,500</b>	<b>7,120,700</b>
Procurement Director	2,678,300	1,344,700	3,111,600	433,300	16.2%	3,121,900	3,143,500	3,160,900	3,179,500
Logistics and Materials	1,970,900	975,700	1,921,300	(49,600)	-2.5%	1,934,400	1,947,400	1,977,400	1,991,000
Owners' Representative	639,100	299,900	590,300	(48,800)	-7.6%	594,200	598,100	602,200	606,200
Transformation	1,045,600	379,900	1,339,900	294,300	28.1%	1,339,000	1,342,000	1,343,000	1,344,000
<b>Financial Reporting &amp; Accounting</b>	<b>3,515,000</b>	<b>1,625,700</b>	<b>3,382,000</b>	<b>(133,000)</b>	<b>-3.8%</b>	<b>3,410,000</b>	<b>3,430,900</b>	<b>3,453,100</b>	<b>3,475,900</b>
<b>Grand Total</b>	<b>\$ 14,728,800</b>	<b>\$ 7,116,400</b>	<b>\$ 15,643,800</b>	<b>\$ 915,000</b>	<b>6.2%</b>	<b>\$ 15,664,500</b>	<b>\$ 15,688,400</b>	<b>\$ 15,831,200</b>	<b>\$ 15,898,600</b>

*Alignment with Entity-wide Annual O&M Ceiling Goal of 2%*

The Financial Services Area financial plan reflects a Five-Year Overall increase of 7.9% which is within the entity-wide goal of a cumulative ceiling of no more than 12.6% for planning purposes based upon an annual 2% adjustment.





## Capital Outlay

Financial Services capital outlay is funded by the Improvement & Extension (I&E) budget. The expansion and renovation of the Northeast Warehouse is planned for FY 2021.

### *Five-Year Capital Outlay Plan by Asset Category*

	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Asset Category</b>						
<b>Machinery &amp; Equipment</b>	-	150,000	-	-	-	-
Heavy Equipment & Misc.	-	150,000	-	-	-	-
<b>Multiple Asset Types</b>	-	950,000	-	-	-	-
<b>Vehicles</b>	-	150,000	-	-	-	-
Heavy Truck	-	150,000	-	-	-	-
<b>Grand Total</b>	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -

### *Five-Year Capital Outlay Plan by Funding Source*

	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Funding Source</b>						
Improvement & Extension	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
<b>Grand Total</b>	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -

### *Five-Year Capital Outlay Plan by Team*

	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Team</b>						
Logistics and Materials	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -
<b>Grand Total</b>	\$ -	\$ 1,250,000	\$ -	\$ -	\$ -	\$ -

## Line Item Budget and Financial Plan

The five-year plan with a line item expense budget is presented on the following pages. The expenses are listed in order by cost center. Because of GLWA's initiatives expand multiple years, this planning document provides the information to smooth out expenses over time and/or plan for annual fluctuations.

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>884001 - Chief Financial Officer</b>	<b>678,100</b>	<b>805,100</b>	<b>409,900</b>	<b>828,900</b>	<b>831,800</b>	<b>834,500</b>	<b>837,300</b>	<b>840,100</b>
2.1 Salaries & Wages	353,800	457,200	199,200	440,500	440,500	440,500	440,500	440,500
2.4 Employee Benefits	44,600	90,000	37,600	93,000	94,800	96,600	98,400	100,200
2.5 Transition Services	192,700	81,500	81,500	248,000	248,000	248,000	248,000	248,000
4.2 Supplies & Other	50,700	48,600	14,300	46,600	47,700	48,600	49,600	50,600
Capital Outlay less than \$5,000	18,100	-	-	-	-	-	-	-
Memberships, Licenses & Subscriptions	9,400	10,000	4,100	10,400	10,600	10,900	11,100	11,300
Mileage and Parking	-	2,000	-	2,000	2,100	2,100	2,200	2,200
Office Supplies	10,400	15,000	6,900	12,200	12,500	12,700	13,000	13,200
Training and Internal Meetings	5,600	10,200	2,400	10,400	10,600	10,800	11,000	11,300
Travel	7,100	11,200	900	11,400	11,700	11,900	12,100	12,400
Postage	100	200	-	200	200	200	200	200
<b>4.3 Contractual Services</b>	<b>36,300</b>	<b>127,800</b>	<b>77,300</b>	<b>800</b>	<b>800</b>	<b>800</b>	<b>800</b>	<b>800</b>
Contractual Operating Services	700	800	300	800	800	800	800	800
Contractual Professional Services	35,600	127,000	77,000	-	-	-	-	-
<b>884111 - Financial Reporting &amp; Accounting</b>	<b>3,039,800</b>	<b>3,515,000</b>	<b>1,625,700</b>	<b>3,382,000</b>	<b>3,410,000</b>	<b>3,430,900</b>	<b>3,453,100</b>	<b>3,475,900</b>
2.1 Salaries & Wages	1,667,400	1,759,700	876,600	1,710,600	1,710,600	1,710,600	1,710,600	1,710,600
2.2 Workforce Development	-	-	-	12,800	12,800	12,800	12,800	12,800
2.3 Overtime	400	2,000	300	1,000	1,000	1,000	1,000	1,000
2.4 Employee Benefits	472,200	532,000	275,900	507,900	517,700	527,500	537,200	547,000
2.5 Transition Services	295,300	203,100	143,600	247,300	247,300	247,300	247,300	247,300
4.2 Supplies & Other	69,100	86,400	32,800	89,400	91,300	93,000	94,800	96,700
Memberships, Licenses & Subscriptions	4,000	7,000	3,300	5,000	5,100	5,200	5,300	5,400
Mileage and Parking	2,500	2,700	1,300	3,000	3,100	3,100	3,200	3,200
Office Supplies	32,600	30,000	11,500	34,000	34,700	35,400	36,100	36,800
Training and Internal Meetings	4,600	14,000	5,500	10,000	10,200	10,400	10,600	10,800
Travel	6,700	10,200	3,300	10,400	10,600	10,800	11,000	11,300
Postage	17,900	20,000	7,900	23,000	23,500	23,900	24,400	24,900
Tuition Refund	800	2,500	-	4,000	4,100	4,200	4,200	4,300
<b>4.3 Contractual Services</b>	<b>535,400</b>	<b>931,800</b>	<b>296,500</b>	<b>813,000</b>	<b>829,300</b>	<b>838,700</b>	<b>849,400</b>	<b>860,500</b>
Contractual Operating Services	2,700	5,800	3,900	4,700	4,800	4,900	5,000	5,100
Contractual Professional Services	316,200	476,000	103,400	513,000	523,300	533,800	544,400	555,400
Auditing	216,500	450,000	189,200	295,300	301,200	300,000	300,000	300,000
<b>884113 - Financial Planning &amp; Analysis</b>	<b>1,150,400</b>	<b>1,309,200</b>	<b>615,600</b>	<b>1,358,600</b>	<b>1,369,400</b>	<b>1,380,500</b>	<b>1,391,600</b>	<b>1,402,800</b>
2.1 Salaries & Wages	622,300	720,700	356,400	808,000	808,000	808,000	808,000	808,000
2.4 Employee Benefits	138,100	200,900	96,100	228,000	232,400	236,700	241,100	245,500
2.5 Transition Services	45,300	31,300	31,200	-	-	-	-	-
4.2 Supplies & Other	6,100	16,300	5,900	16,600	16,900	17,400	17,800	18,100
Memberships, Licenses & Subscriptions	1,300	2,300	1,500	2,300	2,400	2,400	2,500	2,500
Mileage and Parking	100	300	-	300	300	300	400	400
Office Supplies	-	2,700	-	2,800	2,800	2,900	2,900	3,000
Training and Internal Meetings	600	6,000	3,200	6,100	6,200	6,500	6,600	6,700
Travel	4,100	5,000	1,200	5,100	5,200	5,300	5,400	5,500
<b>4.3 Contractual Services</b>	<b>338,600</b>	<b>340,000</b>	<b>126,000</b>	<b>306,000</b>	<b>312,100</b>	<b>318,400</b>	<b>324,700</b>	<b>331,200</b>
<b>884131 - Treasury</b>	<b>721,300</b>	<b>714,200</b>	<b>402,600</b>	<b>829,500</b>	<b>841,300</b>	<b>853,700</b>	<b>866,400</b>	<b>879,400</b>
2.1 Salaries & Wages	197,700	220,900	106,900	210,400	210,400	210,400	210,400	210,400
2.3 Overtime	-	100	100	100	100	100	100	100
2.4 Employee Benefits	56,500	69,200	37,600	65,000	66,200	67,500	68,700	70,000
4.2 Supplies & Other	11,400	18,500	5,000	20,500	20,800	21,300	21,700	22,100
Memberships, Licenses & Subscriptions	1,000	2,500	600	2,500	2,500	2,600	2,700	2,700
Mileage and Parking	-	500	-	500	500	500	500	500
Office Supplies	600	5,000	500	2,000	2,000	2,100	2,100	2,200
Training and Internal Meetings	4,200	5,000	1,500	5,000	5,100	5,200	5,300	5,400
Travel	5,600	5,000	2,400	10,000	10,200	10,400	10,600	10,800
Postage	-	500	-	500	500	500	500	500
<b>4.3 Contractual Services</b>	<b>789,900</b>	<b>655,500</b>	<b>303,800</b>	<b>783,500</b>	<b>798,800</b>	<b>814,500</b>	<b>830,800</b>	<b>847,400</b>
Contractual Operating Services	782,500	655,500	303,800	783,500	798,800	814,500	830,800	847,400
Contractual Professional Services	7,400	-	-	-	-	-	-	-
<b>5.2 Shared Services</b>	<b>(334,200)</b>	<b>(250,000)</b>	<b>(50,800)</b>	<b>(250,000)</b>	<b>(255,000)</b>	<b>(260,100)</b>	<b>(265,300)</b>	<b>(270,600)</b>



Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>884135 - Reporting and Compliance</b>	<b>447,000</b>	<b>466,200</b>	<b>251,800</b>	<b>516,900</b>	<b>519,200</b>	<b>521,100</b>	<b>523,400</b>	<b>525,300</b>
2.1 Salaries & Wages	278,400	309,900	153,400	299,200	299,200	299,200	299,200	299,200
2.3 Overtime	4,100	6,000	800	6,000	6,000	6,000	6,000	6,000
2.4 Employee Benefits	80,900	94,700	50,200	91,200	93,000	94,700	96,500	98,200
2.5 Transition Services	78,600	41,000	40,900	103,000	103,000	103,000	103,000	103,000
4.2 Supplies & Other	5,000	14,600	6,500	14,500	14,900	15,100	15,500	15,700
Memberships, Licenses & Subscriptions	1,000	2,000	1,800	3,000	3,100	3,100	3,200	3,200
Mileage and Parking	-	400	-	300	300	300	300	300
Office Supplies	400	3,000	1,100	1,000	1,000	1,000	1,100	1,100
Training and Internal Meetings	600	3,500	1,200	2,300	2,300	2,400	2,400	2,500
Travel	3,000	5,000	2,400	5,700	5,900	6,000	6,100	6,200
Postage	-	700	-	2,200	2,300	2,300	2,400	2,400
<b>4.3 Contractual Services</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3,000</b>	<b>3,100</b>	<b>3,100</b>	<b>3,200</b>	<b>3,200</b>
<b>884141 - Public Finance</b>	<b>1,147,400</b>	<b>967,000</b>	<b>504,200</b>	<b>1,014,300</b>	<b>946,500</b>	<b>873,700</b>	<b>906,300</b>	<b>878,500</b>
2.1 Salaries & Wages	372,500	446,100	222,400	436,000	436,000	436,000	436,000	436,000
2.4 Employee Benefits	80,200	117,800	62,700	124,200	126,600	129,000	131,400	133,800
2.5 Transition Services	47,700	-	-	-	-	-	-	-
4.2 Supplies & Other	6,500	10,800	5,700	10,800	10,900	11,100	11,700	11,800
Memberships, Licenses & Subscriptions	200	1,500	1,000	700	700	700	800	800
Mileage and Parking	600	1,000	500	800	800	800	900	900
Office Supplies	500	1,000	200	1,000	1,000	1,000	1,100	1,100
Training and Internal Meetings	400	1,300	800	1,300	1,300	1,400	1,400	1,400
Travel	4,700	5,000	3,200	6,000	6,100	6,200	6,400	6,500
Postage	100	1,000	-	1,000	1,000	1,000	1,100	1,100
<b>4.3 Contractual Services</b>	<b>633,100</b>	<b>431,200</b>	<b>232,900</b>	<b>461,700</b>	<b>391,700</b>	<b>316,700</b>	<b>346,700</b>	<b>316,700</b>
Contractual Operating Services	30,500	51,200	9,500	26,700	46,700	46,700	46,700	46,700
Contractual Professional Services	602,600	355,000	223,400	410,000	320,000	270,000	270,000	270,000
Legal	-	25,000	-	25,000	25,000	-	30,000	-
<b>5.2 Shared Services</b>	<b>7,400</b>	<b>(38,900)</b>	<b>(19,500)</b>	<b>(18,400)</b>	<b>(18,700)</b>	<b>(19,100)</b>	<b>(19,500)</b>	<b>(19,800)</b>
Shared Services Reimbursement	-	(20,900)	(10,500)	-	-	-	-	-
Shared Services : Salaries & Wages Reimb	5,300	(12,800)	(6,400)	(13,100)	(13,300)	(13,600)	(13,900)	(14,100)
Shared Services: Employee Benefit Reimb	2,100	(5,200)	(2,600)	(5,300)	(5,400)	(5,500)	(5,600)	(5,700)
<b>884151 - Data Analytics &amp; Internal Audit</b>	<b>633,700</b>	<b>618,200</b>	<b>306,400</b>	<b>750,500</b>	<b>756,800</b>	<b>763,000</b>	<b>769,600</b>	<b>775,900</b>
2.1 Salaries & Wages	118,300	115,400	56,700	200,700	200,700	200,700	200,700	200,700
2.4 Employee Benefits	22,300	24,900	12,500	54,600	55,700	56,700	57,800	58,800
2.5 Transition Services	256,100	271,000	135,500	237,600	237,600	237,600	237,600	237,600
Contractual Transition Services	256,100	271,000	135,500	237,600	237,600	237,600	237,600	237,600
4.2 Supplies & Other	1,100	6,700	300	7,600	7,800	7,900	8,200	8,200
Memberships, Licenses & Subscriptions	1,000	1,200	300	2,000	2,100	2,100	2,200	2,200
Mileage and Parking	-	100	-	100	100	100	100	100
Office Supplies	-	300	-	300	300	300	300	300
Training and Internal Meetings	100	3,100	-	3,200	3,200	3,300	3,400	3,400
Travel	-	2,000	-	2,000	2,100	2,100	2,200	2,200
<b>4.3 Contractual Services</b>	<b>235,900</b>	<b>200,200</b>	<b>101,400</b>	<b>250,000</b>	<b>255,000</b>	<b>260,100</b>	<b>265,300</b>	<b>270,600</b>
<b>884161 - Transformation</b>	<b>747,600</b>	<b>1,045,600</b>	<b>379,900</b>	<b>1,339,900</b>	<b>1,339,000</b>	<b>1,342,000</b>	<b>1,343,000</b>	<b>1,344,000</b>
2.1 Salaries & Wages	54,800	129,500	65,500	129,500	129,500	129,500	129,500	129,500
2.4 Employee Benefits	5,600	24,000	12,500	32,800	33,400	34,000	34,700	35,300
2.5 Transition Services	680,700	862,900	291,900	1,128,600	1,128,600	1,128,600	1,128,600	1,128,600
4.2 Supplies & Other	6,500	29,200	10,000	49,000	47,500	49,900	50,200	50,600
Memberships, Licenses & Subscriptions	-	2,000	400	5,000	8,000	10,000	10,000	10,000
Mileage and Parking	-	1,000	-	2,000	2,000	2,100	2,100	2,200
Office Supplies	300	1,000	200	1,000	1,000	1,000	1,100	1,100
Operating Supplies	2,800	15,000	9,400	10,000	12,500	12,800	13,000	13,300
Training and Internal Meetings	2,700	7,100	-	23,000	17,000	17,000	17,000	17,000
Travel	700	3,100	-	8,000	7,000	7,000	7,000	7,000

Cost Center & Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>884121 - Procurement Director</b>	<b>2,596,200</b>	<b>2,678,300</b>	<b>1,344,700</b>	<b>3,111,600</b>	<b>3,121,900</b>	<b>3,143,500</b>	<b>3,160,900</b>	<b>3,179,500</b>
2.1 Salaries & Wages	1,590,500	1,701,600	863,100	2,180,600	2,180,600	2,180,600	2,180,600	2,180,600
2.3 Overtime	3,500	5,000	6,500	6,000	6,000	6,000	6,000	6,000
2.4 Employee Benefits	499,400	534,900	296,800	669,300	682,200	695,100	707,900	720,800
2.5 Transition Services	129,400	180,900	-	-	-	-	-	-
3.3 Sewage Service	(1,600)	-	-	-	-	-	-	-
4.2 Supplies & Other	125,800	158,000	28,800	229,900	222,400	225,200	227,900	231,300
Memberships, Licenses & Subscriptions	22,400	40,800	8,100	28,200	28,600	29,100	29,500	30,100
Mileage and Parking	1,100	4,000	500	10,500	500	500	500	500
Office Supplies	19,200	28,100	12,500	48,700	49,300	49,900	50,500	51,100
Operating Supplies	3,000	11,500	-	11,800	12,000	12,300	12,500	12,700
Training and Internal Meetings	54,300	50,000	800	91,100	92,100	93,200	94,300	95,800
Travel	14,400	19,600	4,200	26,000	26,300	26,600	27,000	27,400
Postage	4,800	3,000	2,700	6,500	6,500	6,500	6,500	6,500
Tuition Refund	2,100	-	-	6,000	6,000	6,000	6,000	6,000
Repairs & Maintenance-Buildings & Ground	2,000	-	-	-	-	-	-	-
Repairs & Maintenance-Equipment	-	1,000	-	1,100	1,100	1,100	1,100	1,200
Advertising	2,500	-	-	-	-	-	-	-
4.3 Contractual Services	249,200	97,900	149,500	25,800	30,700	36,600	38,500	40,800
Contractual Operating Services	236,700	10,400	149,200	10,500	10,800	11,000	11,300	11,500
Contractual Professional Services	12,500	87,500	300	15,300	19,900	25,600	27,200	29,300
<b>884124 - Logistics and Materials</b>	<b>1,691,400</b>	<b>1,970,900</b>	<b>975,700</b>	<b>1,921,300</b>	<b>1,934,400</b>	<b>1,947,400</b>	<b>1,977,400</b>	<b>1,991,000</b>
2.1 Salaries & Wages	1,049,900	1,106,700	556,300	1,238,800	1,238,800	1,238,800	1,238,800	1,238,800
2.3 Overtime	4,500	3,000	200	5,000	5,000	5,000	5,000	5,000
2.4 Employee Benefits	458,300	403,800	259,200	437,400	445,800	454,200	462,700	471,100
3.1 Electric	22,100	3,000	2,100	28,000	28,600	29,100	33,800	34,500
3.2 Gas	19,500	7,500	2,400	26,500	27,100	27,600	32,300	32,900
3.3 Sewage Service	19,100	12,200	8,800	33,800	34,200	34,800	39,700	40,400
3.4 Water Service	400	500	-	6,500	6,600	6,800	11,000	11,200
4.2 Supplies & Other	98,900	81,700	17,100	145,300	148,300	151,100	154,100	157,100
Capital Outlay less than \$5,000	29,500	-	-	-	-	-	-	-
Memberships, Licenses & Subscriptions	100	7,100	-	3,200	3,200	3,300	3,400	3,400
Mileage and Parking	1,100	1,000	500	2,000	2,000	2,100	2,100	2,200
Office Supplies	16,500	18,300	4,700	22,700	23,100	23,600	24,100	24,600
Operating Supplies	26,900	15,600	5,600	43,800	44,700	45,600	46,500	47,400
Training and Internal Meetings	5,000	14,300	1,000	14,400	14,700	15,000	15,300	15,600
Travel	800	4,000	-	4,100	4,200	4,200	4,300	4,400
Employee Uniform Expense	11,600	10,200	5,200	25,400	25,900	26,400	27,000	27,500
Tuition Refund	-	2,000	-	1,700	2,000	2,000	2,000	2,000
Repairs & Maintenance-Buildings & Ground	(4,900)	4,700	-	10,000	10,200	10,400	10,600	10,800
Repairs & Maintenance-Equipment	12,300	2,500	100	18,000	18,300	18,500	18,800	19,200
Advertising	-	2,000	-	-	-	-	-	-
4.3 Contractual Services	18,700	352,500	129,600	-	-	-	-	-
Contractual Operating Services	6,100	-	(600)	-	-	-	-	-
Contractual Professional Services	12,600	352,500	130,200	-	-	-	-	-
<b>884126 - Owners' Representative</b>	<b>615,800</b>	<b>639,100</b>	<b>299,900</b>	<b>590,300</b>	<b>594,200</b>	<b>598,100</b>	<b>602,200</b>	<b>606,200</b>
2.1 Salaries & Wages	385,900	463,700	205,700	455,600	455,600	455,600	455,600	455,600
2.4 Employee Benefits	88,600	148,000	56,400	127,900	130,400	132,800	135,300	137,700
2.5 Transition Services	154,500	-	-	-	-	-	-	-
4.2 Supplies & Other	10,000	55,900	27,600	23,700	24,100	24,600	25,100	25,600
Capital Outlay less than \$5,000	-	19,200	21,300	-	-	-	-	-
Memberships, Licenses & Subscriptions	1,000	9,500	-	1,200	1,200	1,200	1,300	1,300
Mileage and Parking	-	500	200	500	500	500	500	500
Office Supplies	100	2,500	-	-	-	-	-	-
Operating Supplies	1,500	-	-	2,000	2,000	2,100	2,100	2,200
Training and Internal Meetings	5,100	22,200	6,100	10,000	10,200	10,400	10,600	10,800
Travel	2,300	2,000	-	10,000	10,200	10,400	10,600	10,800
4.3 Contractual Services	67,500	50,000	22,500	68,000	69,400	70,700	72,200	73,600
5.1 Capital Program Allocation	(90,700)	(78,500)	(12,300)	(84,900)	(85,300)	(85,600)	(86,000)	(86,300)
Capital Program: Salaries & Wages-Direct	(49,900)	(78,500)	(8,800)	(84,900)	(85,300)	(85,600)	(86,000)	(86,300)
Capital Program: Employee Benefits	(25,400)	-	(3,500)	-	-	-	-	-
Capital Program: Nonpersonnel	(15,400)	-	-	-	-	-	-	-
<b>Grand Total</b>	<b>\$ 13,468,700</b>	<b>\$ 14,728,800</b>	<b>\$ 7,116,400</b>	<b>\$ 15,643,800</b>	<b>\$ 15,664,500</b>	<b>\$ 15,688,400</b>	<b>\$ 15,831,200</b>	<b>\$ 15,898,600</b>

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## Section 4

# Supplemental Analysis

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The Budget and Five-Year Plan is the compilation of significant effort at the cost center level. This section provides additional information that has an entity-wide impact and are significant elements of the financial plan. The supplemental schedules and analysis include the following categories.

- A. Personnel Costs
- B. Centralized & Administrative Services Cost Allocation
- C. Debt Management
- D. Legacy Commitments
- E. Shared Services
- F. Utilities
- G. Net Position

## Personnel Budget

Achieving the GLWA's initiatives is dependent on the ability to attract, retain, and develop highly qualified and effective team members.

As shown in the following **Personnel Budget** tables, the entity-wide personnel budget increases \$5.9 million, or 5.7%, between FY 2020 and FY 2021.

While specific reasons for the variances in the personnel budget are addressed in other sections of financial plan document, the following highlights some of the key factors.

**Salaries & Wages** – The increase in budget is due to several components.

- An increase in number of staffing positions of 12 in total to support key initiatives
- The filling of contracted and vacant positions with GLWA staff
- A change in the classification and compensation of team members who attain a higher level of knowledge, skillset, and abilities

**Salaries & Wages – Workforce Development** – The workforce development classification represents the salaries and wages for workers that have been hired into the apprenticeship program. There was a slight decrease in budget of \$52,800, or 5% which is due to the increase in the number of graduates from the apprenticeship program in the Wastewater Operations. Additionally, these apprenticeship programs are expected to conclude during FY 2021. Although new apprenticeship programs may be implemented in the future, these positions will not be budgeted until the programs are implemented. More detail is provided in other sections of the financial plan document.

**Overtime** – The overall increase to overtime is due to back filling vacant positions thereby increasing the need for overtime in several areas. \$766,200 of the total \$834,700 overall increase, occurs mainly in the Chief Operating Officer Wastewater Operations area: Combined Sewer Overflow cost center; and Chief Operating Officer Water Operations area: Southwest Water Plant, Springwell's Water Plant, and Systems Operations Control cost centers.

**Employee Benefits** – Increased by \$1.5 million, or 6.6%, between FY 2020 and FY 2021. This is mainly due to more than 60 additional team members enrolled in the medical plan, along with the increase in the requested staffing plan from 1,207 to 1,219 positions. The Staffing plan table is shown later in this document.

**Contractual Transition Services** – The decrease in the Contractual Transition Services budget in the areas of *Chief Planning Officer* and is the result of transitioning positions previously filled by individuals on a contract basis to GLWA team members. The increase in the Contractual Transition Services budget in the areas of *Chief Financial Officer* and *Chief Operating Officer Wastewater Operations* is due to the need to fill specialized positions in the staffing plan. These specialized positions were previously budgeted in Salaries & Wages. It is taking longer to hire for these positions



then originally projected when the FY 2020 budget was developed. There has been a need to temporarily fill these positions on a contractual basis until they can be permanently filled.

### ***Biennial Personnel Budget by Operating Area***

Operating Area and Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Chief Operating Officer Water Operations</b>	<b>\$ 30,290,000</b>	<b>\$ 31,301,200</b>	<b>\$ 16,371,000</b>	<b>\$ 33,337,500</b>	<b>\$ 2,036,300</b>	<b>6.5%</b>	<b>\$ 33,489,000</b>
Salaries & Wages	19,069,900	21,056,200	10,186,700	21,668,600	612,400	2.9%	21,668,600
Salaries & Wages - Workforce Development	377,000	384,100	212,800	603,900	219,800	57.2%	603,900
Overtime	3,669,200	2,741,900	1,946,300	3,185,800	443,900	16.2%	3,185,800
Employee Benefits	7,067,800	7,119,000	4,025,200	7,879,200	760,200	10.7%	8,030,700
Contractual Transition Services	106,100	-	-	-	-	0.0%	-
<b>Chief Operating Officer Wastewater Operations</b>	<b>36,668,300</b>	<b>36,219,000</b>	<b>18,142,500</b>	<b>37,871,500</b>	<b>1,652,500</b>	<b>4.6%</b>	<b>38,559,200</b>
Salaries & Wages	19,255,300	21,209,700	10,145,200	21,639,900	430,200	2.0%	21,873,700
Salaries & Wages - Workforce Development	245,000	386,100	146,600	85,300	(300,800)	-77.9%	85,300
Overtime	3,251,900	3,043,300	1,512,000	3,405,500	362,200	11.9%	3,417,800
Employee Benefits	8,356,400	7,879,800	4,618,900	8,133,100	253,300	3.2%	8,364,700
Contractual Transition Services	5,559,700	3,700,100	1,719,800	4,607,700	907,600	24.5%	4,817,700
<b>Chief Planning Officer</b>	<b>4,538,200</b>	<b>6,272,400</b>	<b>2,398,500</b>	<b>6,450,600</b>	<b>178,200</b>	<b>2.8%</b>	<b>7,220,900</b>
Salaries & Wages	2,749,200	3,981,100	1,486,500	4,146,600	165,500	4.2%	4,722,400
Salaries & Wages - Workforce Development	171,500	231,000	96,500	246,400	15,400	6.7%	246,400
Overtime	114,600	86,800	58,100	112,400	25,600	29.5%	112,400
Employee Benefits	903,200	1,297,300	524,600	1,357,100	59,800	4.6%	1,551,600
Contractual Transition Services	599,700	676,200	232,800	588,100	(88,100)	-13.0%	588,100
<b>Chief Administrative &amp; Compliance Officer</b>	<b>10,128,300</b>	<b>12,586,600</b>	<b>5,674,000</b>	<b>13,337,900</b>	<b>751,300</b>	<b>6.0%</b>	<b>13,395,600</b>
Salaries & Wages	7,913,700	9,784,300	4,380,000	10,344,600	560,300	5.7%	10,344,600
Overtime	5,900	5,500	2,300	-	(5,500)	0.0%	-
Employee Benefits	2,032,000	2,796,800	1,291,700	2,993,300	196,500	7.0%	3,051,000
Contractual Transition Services	176,700	-	-	-	-	0.0%	-
<b>Chief Financial Officer</b>	<b>10,531,300</b>	<b>11,359,400</b>	<b>5,592,200</b>	<b>12,536,600</b>	<b>1,177,200</b>	<b>10.4%</b>	<b>12,583,500</b>
Salaries & Wages	6,691,600	7,431,400	3,662,200	8,109,900	678,500	9.1%	8,109,900
Salaries & Wages - Workforce Development	-	-	-	12,800	12,800	0.0%	12,800
Overtime	12,600	16,100	7,900	18,100	2,000	12.4%	18,100
Employee Benefits	1,946,800	2,240,200	1,197,500	2,431,300	191,100	8.5%	2,478,200
Contractual Transition Services	1,880,300	1,671,700	724,600	1,964,500	292,800	17.5%	1,964,500
<b>Chief Executive Officer</b>	<b>6,432,500</b>	<b>6,653,800</b>	<b>3,599,500</b>	<b>6,799,000</b>	<b>145,200</b>	<b>2.2%</b>	<b>6,880,700</b>
Salaries & Wages	4,242,000	4,769,800	2,396,300	4,851,400	81,600	1.7%	4,887,900
Overtime	499,200	259,700	164,500	266,200	6,500	2.5%	266,200
Employee Benefits	1,691,300	1,624,300	1,038,700	1,681,400	57,100	3.5%	1,726,600
<b>Grand Total</b>	<b>\$ 98,588,600</b>	<b>\$ 104,392,400</b>	<b>\$ 51,777,700</b>	<b>\$ 110,333,100</b>	<b>\$ 5,940,700</b>	<b>5.7%</b>	<b>\$ 112,128,900</b>



### ***Five Year Financial Plan***

Operating Area and Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Chief Operating Officer Water Operations</b>	<b>\$ 31,301,200</b>	<b>\$ 16,371,000</b>	<b>\$ 33,337,500</b>	<b>\$ 2,036,300</b>	<b>6.5%</b>	<b>\$ 33,489,000</b>	<b>\$ 33,640,500</b>	<b>\$ 33,791,900</b>	<b>\$ 33,943,500</b>
Salaries & Wages	21,056,200	10,186,700	21,668,600	612,400	2.9%	21,668,600	21,668,600	21,668,600	21,668,600
Salaries & Wages - Workforce Development	384,100	212,800	603,900	219,800	57.2%	603,900	603,900	603,900	603,900
Overtime	2,741,900	1,946,300	3,185,800	443,900	16.2%	3,185,800	3,185,800	3,185,800	3,185,800
Employee Benefits	7,119,000	4,025,200	7,879,200	760,200	10.7%	8,030,700	8,182,200	8,333,600	8,485,200
<b>Chief Operating Officer Wastewater Operations</b>	<b>36,219,000</b>	<b>18,142,500</b>	<b>37,871,500</b>	<b>1,652,500</b>	<b>4.6%</b>	<b>38,559,200</b>	<b>38,666,800</b>	<b>38,799,700</b>	<b>38,907,400</b>
Salaries & Wages	21,209,700	10,145,200	21,639,900	430,200	2.0%	21,873,700	21,873,700	21,873,700	21,873,700
Salaries & Wages - Workforce Development	386,100	146,600	85,300	(300,800)	-77.9%	85,300	50,700	33,800	-
Overtime	3,043,300	1,512,000	3,405,500	362,200	11.9%	3,417,800	3,417,800	3,417,800	3,417,800
Employee Benefits	7,879,800	4,618,900	8,133,100	253,300	3.2%	8,364,700	8,506,900	8,656,700	8,798,200
Contractual Transition Services	3,700,100	1,719,800	4,607,700	907,600	24.5%	4,817,700	4,817,700	4,817,700	4,817,700
<b>Chief Planning Officer</b>	<b>6,272,400</b>	<b>2,398,500</b>	<b>6,450,600</b>	<b>178,200</b>	<b>2.8%</b>	<b>7,220,900</b>	<b>7,486,100</b>	<b>7,516,500</b>	<b>7,546,700</b>
Salaries & Wages	3,981,100	1,486,500	4,146,600	165,500	4.2%	4,722,400	4,905,200	4,905,200	4,905,200
Salaries & Wages - Workforce Development	231,000	96,500	246,400	15,400	6.7%	246,400	246,400	246,400	246,400
Overtime	86,800	58,100	112,400	25,600	29.5%	112,400	112,400	112,400	112,400
Employee Benefits	1,297,300	524,600	1,357,100	59,800	4.6%	1,551,600	1,634,000	1,664,400	1,694,600
Contractual Transition Services	676,200	232,800	588,100	(88,100)	-13.0%	588,100	588,100	588,100	588,100
<b>Chief Administrative &amp; Compliance Officer</b>	<b>12,586,600</b>	<b>5,674,000</b>	<b>13,337,900</b>	<b>751,300</b>	<b>6.0%</b>	<b>13,395,600</b>	<b>13,453,200</b>	<b>13,510,800</b>	<b>13,568,200</b>
Salaries & Wages	9,784,300	4,380,000	10,344,600	560,300	5.7%	10,344,600	10,344,600	10,344,600	10,344,600
Overtime	5,500	2,300	-	(5,500)	0.0%	-	-	-	-
Employee Benefits	2,796,800	1,291,700	2,993,300	196,500	7.0%	3,051,000	3,108,600	3,166,200	3,223,600
<b>Chief Financial Officer</b>	<b>11,359,400</b>	<b>5,592,200</b>	<b>12,536,600</b>	<b>1,177,200</b>	<b>10.4%</b>	<b>12,583,500</b>	<b>12,630,100</b>	<b>12,677,000</b>	<b>12,723,700</b>
Salaries & Wages	7,431,400	3,662,200	8,109,900	678,500	9.1%	8,109,900	8,109,900	8,109,900	8,109,900
Salaries & Wages - Workforce Development	-	-	12,800	12,800	0.0%	12,800	12,800	12,800	12,800
Overtime	16,100	7,900	18,100	2,000	12.4%	18,100	18,100	18,100	18,100
Employee Benefits	2,240,200	1,197,500	2,431,300	191,100	8.5%	2,478,200	2,524,800	2,571,700	2,618,400
Contractual Transition Services	1,671,700	724,600	1,964,500	292,800	17.5%	1,964,500	1,964,500	1,964,500	1,964,500
<b>Chief Executive Officer</b>	<b>6,653,800</b>	<b>3,599,500</b>	<b>6,799,000</b>	<b>145,200</b>	<b>2.2%</b>	<b>6,880,700</b>	<b>6,916,500</b>	<b>6,952,200</b>	<b>6,988,100</b>
Salaries & Wages	4,769,800	2,396,300	4,851,400	81,600	1.7%	4,887,900	4,891,100	4,894,300	4,897,500
Overtime	259,700	164,500	266,200	6,500	2.5%	266,200	266,200	266,200	266,200
Employee Benefits	1,624,300	1,038,700	1,681,400	57,100	3.5%	1,726,600	1,759,200	1,791,700	1,824,400
<b>Grand Total</b>	<b>\$ 104,392,400</b>	<b>\$ 51,777,700</b>	<b>\$ 110,333,100</b>	<b>\$ 5,940,700</b>	<b>5.7%</b>	<b>\$ 112,128,900</b>	<b>\$ 112,793,200</b>	<b>\$ 113,248,100</b>	<b>\$ 113,677,600</b>

### **Capital Program Allocation**

The amounts in the following **Capital Program Allocation** tables are shown as negative amounts because they are “contra” accounts which represent an offset to the Personnel Costs section of the Operations & Maintenance (O&M) budget. The Capital Program Allocation activity supports project delivery of the Capital Improvement Plan (CIP). As previously described, the 1.9% decrease represents a realignment between O&M type projects versus and capital program spend.

To improve on the process of capturing time charged to capital projects by GLWA team members, a new time tracking software, BigTime, was implemented and rolled out towards the end of FY 2018.

### Capital Program Allocation Biennial Budget

Operating Area and Expense Category	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Chief Operating Officer Water Operations</b>	<b>\$ (1,964,100)</b>	<b>\$ (1,921,300)</b>	<b>\$ (929,700)</b>	<b>\$ (2,037,000)</b>	<b>\$ (115,700)</b>	<b>6.0%</b>	<b>\$ (2,045,500)</b>
Capital Program: Employee Benefits	(538,700)	(522,600)	(260,500)	-	522,600	-100.0%	-
Capital Program: Salaries & Wages-Direct	(1,387,000)	(1,343,900)	(657,900)	(2,037,000)	(693,100)	51.6%	(2,045,500)
Capital Program: Salaries & Wages-Indire	(38,400)	(54,800)	(11,300)	-	54,800	-100.0%	-
<b>Chief Operating Officer Wastewater Operations</b>	<b>(1,325,900)</b>	<b>(1,239,400)</b>	<b>(500,500)</b>	<b>(1,325,800)</b>	<b>(86,400)</b>	<b>7.0%</b>	<b>(1,331,600)</b>
Capital Program: Employee Benefits	(373,700)	-	(142,000)	(256,900)	(256,900)	0.0%	(258,000)
Capital Program: Salaries & Wages-Direct	(952,200)	(1,239,400)	(358,500)	(1,068,900)	170,500	-13.8%	(1,073,600)
<b>Chief Planning Officer</b>	<b>-</b>	<b>(276,200)</b>	<b>-</b>	<b>-</b>	<b>276,200</b>	<b>-100.0%</b>	<b>-</b>
Capital Program: Employee Benefits	-	-	-	-	-	0.0%	-
Capital Program: Salaries & Wages-Indire	-	(276,200)	-	-	276,200	-100.0%	-
Capital Program: Salaries & Wages-Direct	-	-	-	-	-	0.0%	-
<b>Chief Administrative &amp; Compliance Officer</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>
Capital Program: Salaries & Wages-Direct	-	-	-	-	-	0.0%	-
<b>Chief Financial Officer</b>	<b>(78,500)</b>	<b>(78,500)</b>	<b>(12,300)</b>	<b>(84,900)</b>	<b>(6,400)</b>	<b>8.2%</b>	<b>(85,300)</b>
Capital Program: Employee Benefits	-	-	(3,500)	-	-	0.0%	-
Capital Program: Salaries & Wages-Direct	(78,500)	(78,500)	(8,800)	(84,900)	(6,400)	8.2%	(85,300)
Capital Program: Salaries & Wages-Indire	-	-	-	-	-	0.0%	-
<b>Chief Executive Officer</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>
Capital Program: Salaries & Wages-Direct	-	-	-	-	-	0.0%	-
<b>Grand Total</b>	<b>\$ (3,368,500)</b>	<b>\$ (3,515,400)</b>	<b>\$ (1,442,500)</b>	<b>\$ (3,447,700)</b>	<b>\$ 67,700</b>	<b>-1.9%</b>	<b>\$ (3,462,400)</b>

### Capital Program Allocation Five Year Plan

Operating Area and Expense Category	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Chief Operating Officer Water Operations</b>	<b>\$ (1,921,300)</b>	<b>\$ (929,700)</b>	<b>\$ (2,037,000)</b>	<b>\$ (115,700)</b>	<b>6.0%</b>	<b>\$ (2,045,500)</b>	<b>\$ (2,054,100)</b>	<b>\$ (2,062,600)</b>	<b>\$ (2,071,000)</b>
Capital Program: Employee Benefits	(522,600)	(260,500)	-	522,600	-100.0%	-	-	-	-
Capital Program: Salaries & Wages-Direct	(1,343,900)	(657,900)	(2,037,000)	(693,100)	51.6%	(2,045,500)	(2,054,100)	(2,062,600)	(2,071,000)
Capital Program: Salaries & Wages-Indire	(54,800)	(11,300)	-	54,800	-100.0%	-	-	-	-
<b>Chief Operating Officer Wastewater Operations</b>	<b>(1,239,400)</b>	<b>(500,500)</b>	<b>(1,325,800)</b>	<b>(86,400)</b>	<b>7.0%</b>	<b>(1,331,600)</b>	<b>(1,337,400)</b>	<b>(1,838,900)</b>	<b>(1,349,100)</b>
Capital Program: Employee Benefits	-	(142,000)	(256,900)	(256,900)	0.0%	(258,000)	(259,100)	(260,200)	(261,300)
Capital Program: Salaries & Wages-Direct	(1,239,400)	(358,500)	(1,068,900)	170,500	-13.8%	(1,073,600)	(1,078,300)	(1,578,700)	(1,087,800)
<b>Chief Planning Officer</b>	<b>(276,200)</b>	<b>-</b>	<b>-</b>	<b>276,200</b>	<b>-100.0%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Capital Program: Employee Benefits	-	-	-	-	0.0%	-	-	-	-
Capital Program: Salaries & Wages-Indire	(276,200)	-	-	276,200	-100.0%	-	-	-	-
Capital Program: Salaries & Wages-Direct	-	-	-	-	0.0%	(1,300)	(48,000)	(18,200)	(48,400)
<b>Chief Administrative &amp; Compliance Officer</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Capital Program: Salaries & Wages-Direct	-	-	-	-	0.0%	-	-	-	-
<b>Chief Financial Officer</b>	<b>(78,500)</b>	<b>(12,300)</b>	<b>(84,900)</b>	<b>(6,400)</b>	<b>8.2%</b>	<b>(85,300)</b>	<b>(85,600)</b>	<b>(86,000)</b>	<b>(86,300)</b>
Capital Program: Employee Benefits	-	(3,500)	-	-	0.0%	-	-	-	-
Capital Program: Salaries & Wages-Direct	(78,500)	(8,800)	(84,900)	(6,400)	8.2%	(85,300)	(85,600)	(86,000)	(86,300)
Capital Program: Salaries & Wages-Indire	-	-	-	-	0.0%	-	-	-	-
<b>Chief Executive Officer</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.0%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Capital Program: Salaries & Wages-Direct	-	-	-	-	0.0%	-	-	-	-
<b>Grand Total</b>	<b>\$ (3,515,400)</b>	<b>\$ (1,442,500)</b>	<b>\$ (3,447,700)</b>	<b>\$ 67,700</b>	<b>-1.9%</b>	<b>\$ (3,462,400)</b>	<b>\$ (3,477,100)</b>	<b>\$ (3,987,500)</b>	<b>\$ (3,506,400)</b>

## Staffing Plan

The table on the next page presents both a “Staffing Plan” reflecting the *number* of positions and a “Staffing Budget” based on *full-time equivalents* (FTEs). In the Staffing Plan each position has a value of one. The position count does not distinguish between a position that is filled 100% (2,080 hours per year), filled for a number of hours less than 2,080 per year, or one that is vacant. The FTE staffing is based on the number of hours that the position is filled, or budgeted for, in each year based upon a standard of 2,080 hours per year.

The increase in the staffing plan from 1,207 to 1,219 positions consists of the following: Three each in the Chief Operating and Officer Water; Wastewater Operations; and Chief Planning Officer areas. Two in the Chief Administrative & Compliance Officer area; and one in the Chief Financial Officer area. Further detail is provided in other sections of the financial plan document.

The Staffing Plan and FTE counts level out beginning in FY 2021 as the organization reaches an optimal staffing level and vacancies are filled. The goal of the staffing plan is to provide the organization with an appropriate level of personnel to achieve operational reliability, to ensure a safe environment, maintain compliance and efficient capital delivery, and to provide reliable and quality services to our customer communities.

### Staffing Plan

Operating Area and Team	Prior Year FY 2018 Staffing Plan	Prior Year FY 2019 Staffing Plan	Current Year FY 2020 Staffing Plan	FY 2021 Staffing Plan	FY 2022 Staffing Plan	FY 2023 Staffing Plan	FY 2024 Staffing Plan	FY 2025 Staffing Plan
<b>Chief Operating Officer Water Operations</b>	<b>354.00</b>	<b>360.00</b>	<b>363.00</b>	<b>366.00</b>	<b>366.00</b>	<b>366.00</b>	<b>366.00</b>	<b>366.00</b>
COO - Water Operations & Field Services	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00
Energy, Research & Innovation	0.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Facility Operations	22.00	22.00	25.00	25.00	25.00	25.00	25.00	25.00
Field Service Operations	44.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00
Lake Huron Water Plant	31.00	30.00	30.00	31.00	31.00	31.00	31.00	31.00
Northeast Water Plant	32.00	32.00	30.00	32.00	32.00	32.00	32.00	32.00
Southwest Water Plant	29.00	29.00	30.00	30.00	30.00	30.00	30.00	30.00
Springwells Water Plant	35.00	35.00	36.00	36.00	36.00	36.00	36.00	36.00
Systems Operations Control	79.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00
Water Director	7.00	9.00	9.00	11.00	11.00	11.00	11.00	11.00
Water Engineering	19.00	24.00	24.00	23.00	23.00	23.00	23.00	23.00
Water Quality	18.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
Water Works Park	36.00	37.00	37.00	35.00	35.00	35.00	35.00	35.00
<b>Chief Operating Officer Wastewater Operations</b>	<b>436.00</b>	<b>440.00</b>	<b>440.00</b>	<b>443.00</b>	<b>443.00</b>	<b>442.00</b>	<b>441.00</b>	<b>440.00</b>
BDF, COF & Hauling	0.00	12.00	12.00	11.00	11.00	11.00	11.00	11.00
Chief Operating Officer Wastewater	18.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Combined Sewer Overflow	18.00	33.00	36.00	37.00	37.00	36.00	36.00	36.00
Industrial Waste Control	31.00	30.00	29.00	29.00	29.00	29.00	29.00	29.00
Wastewater Dewatering Process	0.00	54.00	50.00	51.00	51.00	51.00	51.00	51.00
Wastewater Director	0.00	46.00	47.00	47.00	47.00	47.00	47.00	47.00
Wastewater Engineering	32.00	26.00	24.00	24.00	24.00	24.00	24.00	24.00
Wastewater Incineration Process	0.00	52.00	52.00	51.00	51.00	51.00	51.00	51.00
Wastewater Laboratories	25.00	33.00	38.00	40.00	40.00	40.00	40.00	40.00
Wastewater Operations	312.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00
Wastewater Primary Process	0.00	51.00	50.00	55.00	55.00	55.00	54.00	53.00
Wastewater Process Control	0.00	27.00	27.00	25.00	25.00	25.00	25.00	25.00
Wastewater Secondary Process	0.00	46.00	46.00	44.00	44.00	44.00	44.00	44.00
<b>Chief Planning Officer</b>	<b>68.00</b>	<b>62.00</b>	<b>70.00</b>	<b>73.00</b>	<b>73.00</b>	<b>73.00</b>	<b>73.00</b>	<b>73.00</b>
Asset Management	9.00	7.00	9.00	11.00	11.00	11.00	11.00	11.00
Capital Improvement Planning	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Chief Planning Officer	5.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Energy Management	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Systems Analytics	39.00	40.00	43.00	44.00	44.00	44.00	44.00	44.00
Systems Planning	4.00	4.00	7.00	7.00	7.00	7.00	7.00	7.00
<b>Chief Administration &amp; Compliance Officer</b>	<b>111.00</b>	<b>119.00</b>	<b>122.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>
Chief Administrative Officer	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Enterprise Risk Management and Safety	4.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
General Counsel	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Info Technology Business Applications	12.00	13.00	13.00	16.00	16.00	16.00	16.00	16.00
Info Technology Enterprise Applications	14.00	13.00	13.00	10.00	10.00	10.00	10.00	10.00
Info Technology Infrastructure	14.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
Info Technology Security & Risk	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Info Technology Service Delivery	12.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Info Technology Project Management Office	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Office of the CIO	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Organizational Development	28.00	28.00	31.00	33.00	33.00	33.00	33.00	33.00
<b>Chief Financial Officer</b>	<b>110.00</b>	<b>118.00</b>	<b>123.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>
Chief Financial Officer	2.00	3.00	5.00	5.00	5.00	5.00	5.00	5.00
Data Analytics & Internal Audit	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Financial Planning & Analysis	6.00	8.00	9.00	9.00	9.00	9.00	9.00	9.00
Financial Reporting & Accounting	27.00	27.00	27.00	26.00	26.00	26.00	26.00	26.00
Logistics and Materials	22.00	23.00	24.00	24.00	24.00	24.00	24.00	24.00
Owners' Representative	5.00	5.00	6.00	5.00	5.00	5.00	5.00	5.00
Procurement Director	30.00	30.00	29.00	31.00	31.00	31.00	31.00	31.00
Public Finance	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reporting and Compliance	0.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
Transformation	6.00	7.00	8.00	8.00	8.00	8.00	8.00	8.00
Treasury	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
<b>Chief Executive Officer</b>	<b>98.00</b>	<b>85.00</b>	<b>89.00</b>	<b>89.00</b>	<b>89.00</b>	<b>89.00</b>	<b>89.00</b>	<b>89.00</b>
Chief Executive Officer	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
HazMat	0.00	17.00	19.00	19.00	19.00	19.00	19.00	19.00
Public Affairs	7.00	7.00	8.00	8.00	8.00	8.00	8.00	8.00
Security and Integrity	89.00	59.00	60.00	60.00	60.00	60.00	60.00	60.00
<b>Grand Total</b>	<b>1,177.00</b>	<b>1,184.00</b>	<b>1,207.00</b>	<b>1,219.00</b>	<b>1,219.00</b>	<b>1,218.00</b>	<b>1,217.00</b>	<b>1,216.00</b>

### Full-time Equivalents

Operating Area and Team	Prior Year FY 2018 FTEs	Prior Year FY 2019 FTEs	Current Year FY 2020 FTEs	FY 2021 FTEs	FY 2022 FTEs	FY 2023 FTEs	FY 2024 FTEs	FY 2025 FTEs
<b>Chief Operating Officer Water Operations</b>	<b>354.00</b>	<b>360.00</b>	<b>363.00</b>	<b>365.25</b>	<b>365.25</b>	<b>365.25</b>	<b>365.25</b>	<b>365.25</b>
COO - Water Operations & Field Services	2.00	2.00	2.00	2.75	2.75	2.75	2.75	2.75
Energy, Research & Innovation	0.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Facility Operations	22.00	22.00	25.00	24.50	24.50	24.50	24.50	24.50
Field Service Operations	44.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00
Lake Huron Water Plant	31.00	30.00	30.00	31.00	31.00	31.00	31.00	31.00
Northeast Water Plant	32.00	32.00	30.00	32.00	32.00	32.00	32.00	32.00
Southwest Water Plant	29.00	29.00	30.00	30.00	30.00	30.00	30.00	30.00
Springwells Water Plant	35.00	35.00	36.00	36.00	36.00	36.00	36.00	36.00
Systems Operations Control	79.00	43.00	43.00	43.00	43.00	43.00	43.00	43.00
Water Director	7.00	9.00	9.00	11.00	11.00	11.00	11.00	11.00
Water Engineering	19.00	24.00	24.00	23.00	23.00	23.00	23.00	23.00
Water Quality	18.00	26.00	26.00	26.00	26.00	26.00	26.00	26.00
Water Works Park	36.00	37.00	37.00	35.00	35.00	35.00	35.00	35.00
<b>Chief Operating Officer Wastewater Operations</b>	<b>432.50</b>	<b>434.50</b>	<b>432.25</b>	<b>436.75</b>	<b>442.50</b>	<b>441.50</b>	<b>441.00</b>	<b>440.00</b>
BDF, COF & Hauling	0.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Chief Operating Officer Wastewater	18.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Combined Sewer Overflow	18.00	32.00	34.25	36.50	36.50	36.00	36.00	36.00
Industrial Waste Control	31.00	30.00	29.00	28.50	29.00	29.00	29.00	29.00
Wastewater Dewatering Process	0.00	52.00	49.00	51.00	51.00	51.00	51.00	51.00
Wastewater Director	0.00	46.00	47.00	46.00	47.00	47.00	47.00	47.00
Wastewater Engineering	32.00	26.00	24.00	23.50	24.00	24.00	24.00	24.00
Wastewater Incineration Process	0.00	52.00	52.00	49.75	51.00	51.00	51.00	51.00
Wastewater Laboratories	25.00	33.00	38.00	40.00	40.00	40.00	40.00	40.00
Wastewater Operations	308.50	15.50	12.00	13.50	15.00	15.00	15.00	15.00
Wastewater Primary Process	0.00	50.50	50.00	54.50	55.00	54.50	54.00	53.00
Wastewater Process Control	0.00	27.00	26.00	24.50	25.00	25.00	25.00	25.00
Wastewater Secondary Process	0.00	45.50	46.00	44.00	44.00	44.00	44.00	44.00
<b>Chief Planning Officer</b>	<b>63.50</b>	<b>60.25</b>	<b>64.25</b>	<b>63.25</b>	<b>70.00</b>	<b>72.00</b>	<b>72.00</b>	<b>72.00</b>
Asset Management	8.00	7.00	9.00	9.50	10.00	10.00	10.00	10.00
Capital Improvement Planning	6.00	6.25	4.25	5.50	7.50	8.00	8.00	8.00
Chief Planning Officer	4.50	3.00	2.00	3.00	3.00	3.00	3.00	3.00
Energy Management	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Systems Analytics	39.00	40.00	43.00	39.25	42.50	44.00	44.00	44.00
Systems Planning	3.25	4.00	6.00	6.00	7.00	7.00	7.00	7.00
<b>Chief Administration &amp; Compliance Officer</b>	<b>110.75</b>	<b>119.00</b>	<b>120.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>	<b>124.00</b>
Chief Administrative Officer	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Enterprise Risk Management and Safety	4.00	8.00	6.00	8.00	8.00	8.00	8.00	8.00
General Counsel	6.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Info Technology Business Applications	12.00	13.00	13.00	16.00	16.00	16.00	16.00	16.00
Info Technology Enterprise Applications	14.00	13.00	13.00	10.00	10.00	10.00	10.00	10.00
Info Technology Infrastructure	14.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
Info Technology Security & Risk	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Info Technology Service Delivery	12.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Info Technology Project Management Office	9.75	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Office of the CIO	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Organizational Development	28.00	28.00	31.00	33.00	33.00	33.00	33.00	33.00
<b>Chief Financial Officer</b>	<b>109.50</b>	<b>114.25</b>	<b>119.25</b>	<b>122.00</b>	<b>122.00</b>	<b>122.00</b>	<b>122.00</b>	<b>122.00</b>
Chief Financial Officer	2.00	3.00	5.00	4.50	4.50	4.50	4.50	4.50
Data Analytics & Internal Audit	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Financial Planning & Analysis	6.00	8.00	9.00	9.00	9.00	9.00	9.00	9.00
Financial Reporting & Accounting	26.50	25.00	26.00	25.00	25.00	25.00	25.00	25.00
Logistics and Materials	22.00	23.00	23.25	24.00	24.00	24.00	24.00	24.00
Owners' Representative	5.00	4.25	6.00	5.00	5.00	5.00	5.00	5.00
Procurement Director	30.00	29.25	27.00	30.50	30.50	30.50	30.50	30.50
Public Finance	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Reporting and Compliance	0.00	4.00	4.00	5.00	5.00	5.00	5.00	5.00
Transformation	6.00	6.75	8.00	8.00	8.00	8.00	8.00	8.00
Treasury	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
<b>Chief Executive Officer</b>	<b>97.50</b>	<b>84.50</b>	<b>88.50</b>	<b>88.25</b>	<b>89.00</b>	<b>89.00</b>	<b>89.00</b>	<b>89.00</b>
Chief Executive Officer	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
HazMat	0.00	17.00	19.00	19.00	19.00	19.00	19.00	19.00
Public Affairs	7.00	7.00	7.50	7.25	8.00	8.00	8.00	8.00
Security and Integrity	88.50	58.50	60.00	60.00	60.00	60.00	60.00	60.00
<b>Grand Total</b>	<b>1,167.75</b>	<b>1,172.50</b>	<b>1,187.25</b>	<b>1,199.50</b>	<b>1,212.75</b>	<b>1,213.75</b>	<b>1,213.25</b>	<b>1,212.25</b>

**Centralized and Administrative Services** include operational functions that serve both water and wastewater operations. The following functional areas are included in this cost center group.

**Centralized Services**

- ✓ Planning Services (Chief Planning Officer, Systems Planning, Asset Management, Systems Analytics, and Capital Improvement Planning)
- ✓ Information Technology (Office of the CIO, Project Management Office, Infrastructure, Enterprise Applications, Business Applications, Security & Risk, and Service Delivery)
- ✓ Security & Integrity (includes HazMat)
- ✓ Facility & Fleet Operations
- ✓ Systems Operations Control
- ✓ Field Service Operations
- ✓ Energy Research & Innovation

**Administrative Services**

- ✓ Board of Directors
- ✓ Chief Executive Officer
- ✓ Chief Administrative Officer
- ✓ General Counsel
- ✓ Public Affairs
- ✓ Organizational Development
- ✓ Enterprise Risk Management & Safety
- ✓ Financial Services Group (Chief Financial Officer, Financial Reporting & Accounting, Financial Planning & Analysis, Reporting & Compliance, Treasury, Public Finance, Procurement, Logistics & Materials, Owners' Representative, Data Analytics & Internal Audit, and Transformation)



**Cost Allocation** for the functional areas above disburses operational expenses to GLWA's water and wastewater systems using a defined methodology. Cost allocation for both Centralized Services and Administrative Services are allocated based upon a two-step approach.

- ✓ Step One: Specifically, identifiable costs to either water or wastewater are isolated for allocation directly to the appropriate system.
- ✓ Step Two: The remaining costs, net of those specifically identified in Step One, are allocated using a percentage amount. That amount is reviewed annually by the Financial Planning & Analysis team with the manager of each cost center. That review includes examining prior year expenses, requested budget amounts, use of staff time, and any other records or information available to support a meaningful cost allocation.

The tables below detail the budgets for the Administrative and Centralized Services cost centers and their projected allocation to GLWA's water and wastewater systems. Data is presented in biennial and five-year budget formats.

**Tables 1 and 2 – Costs Allocated to Water and Wastewater (Summary)** presents the dollar amount allocated to each system based on the analysis of expenses by cost center for both the biennial and five-year budget periods.

**Table 1 – Biennial Cost Allocation Summary**

Expense Categories	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Wastewater</b>	\$ 59,661,900	\$ 71,071,900	\$ 30,500,200	\$ 69,269,700	\$ (1,802,200)	-2.5%	\$ 70,740,500
Administrative Services	12,559,600	15,421,700	7,088,700	15,854,600	432,900	2.8%	16,278,500
Centralized Services	47,102,300	55,650,200	23,411,500	53,415,100	(2,235,100)	-4.0%	54,462,000
<b>Water</b>	<b>48,520,400</b>	<b>65,469,000</b>	<b>29,513,900</b>	<b>65,160,900</b>	<b>(308,100)</b>	<b>-0.5%</b>	<b>66,551,200</b>
Administrative Services	12,559,300	14,206,100	7,088,700	15,854,700	1,648,600	11.6%	16,278,500
Centralized Services	35,961,100	51,262,900	22,425,200	49,306,200	(1,956,700)	-3.8%	50,272,700
<b>Grand Total</b>	<b>\$ 108,182,300</b>	<b>\$ 136,540,900</b>	<b>\$ 60,014,100</b>	<b>\$ 134,430,600</b>	<b>\$ (2,110,300)</b>	<b>-1.5%</b>	<b>\$ 137,291,700</b>

**Table 2 – Five Year Cost Allocation Summary**

Expense Categories	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Wastewater</b>	\$ 71,071,900	\$ 30,500,200	\$ 69,269,700	\$ 70,740,500	\$ 69,380,700	\$ 69,382,700	\$ 69,320,900
Administrative Services	15,421,700	7,088,700	15,854,600	16,278,500	16,559,900	16,873,800	17,185,400
Centralized Services	55,650,200	23,411,500	53,415,100	54,462,000	52,820,800	52,508,900	52,135,500
<b>Water</b>	<b>65,469,000</b>	<b>29,513,900</b>	<b>65,160,900</b>	<b>66,551,200</b>	<b>65,317,500</b>	<b>65,343,500</b>	<b>65,310,400</b>
Administrative Services	14,206,100	7,088,700	15,854,700	16,278,500	16,559,800	16,873,800	17,185,300
Centralized Services	51,262,900	22,425,200	49,306,200	50,272,700	48,757,700	48,469,700	48,125,100
<b>Grand Total</b>	<b>\$ 136,540,900</b>	<b>\$ 60,014,100</b>	<b>\$ 134,430,600</b>	<b>\$ 137,291,700</b>	<b>\$ 134,698,200</b>	<b>\$ 134,726,200</b>	<b>\$ 134,631,300</b>



**Tables 3 thru 6 – Costs Subject to Allocation to Water and Wastewater - Actual and Budgeted Amounts** summarizes the financial plan by expense category and team subject to allocation to the water or wastewater systems.

**Table 3 – Biennial Costs Subject to Allocation by Expense Category**

Expense Categories	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Administrative Services</b>	<b>\$ 25,118,700</b>	<b>\$ 29,627,800</b>	<b>\$ 14,177,400</b>	<b>\$ 31,709,300</b>	<b>\$ 2,081,500</b>	<b>7.0%</b>	<b>\$ 32,557,000</b>
2.1 Salaries & Wages	10,868,400	12,336,500	5,952,700	13,485,100	1,148,600	9.3%	13,521,600
2.2 Workforce Development	-	-	-	12,800	12,800	100.0%	12,800
2.3 Overtime	15,900	21,100	10,100	18,100	(3,000)	-14.2%	18,100
2.4 Employee Benefits	2,929,500	3,588,200	1,830,600	3,939,200	351,000	9.8%	4,028,000
2.5 Transition Services	1,880,300	1,671,700	724,600	1,964,500	292,800	17.5%	1,964,500
3.1 Electric	22,100	3,000	2,100	28,000	25,000	833.3%	28,600
3.2 Gas	19,500	7,500	2,400	26,500	19,000	253.3%	27,100
3.3 Sewage Service	17,500	12,200	8,800	33,800	21,600	177.0%	34,200
3.4 Water Service	400	500	-	6,500	6,000	1200.0%	6,600
4.2 Supplies & Other	1,179,500	1,551,100	493,500	1,904,000	352,900	22.8%	1,873,100
4.3 Contractual Services	8,610,200	10,673,200	5,235,200	10,145,800	(527,400)	-4.9%	10,487,800
5.1 Capital Program Allocation	(90,700)	(78,500)	(12,300)	(84,900)	(6,400)	8.2%	(85,300)
5.2 Shared Services	(333,900)	(288,900)	(70,300)	(268,400)	20,500	-7.1%	(273,700)
7.0 Unallocated Reserve	-	130,200	-	498,300	368,100	282.7%	913,600
<b>Centralized Services</b>	<b>83,063,600</b>	<b>106,913,100</b>	<b>45,836,700</b>	<b>102,721,300</b>	<b>(4,191,800)</b>	<b>-3.9%</b>	<b>104,734,700</b>
2.1 Salaries & Wages	17,464,900	21,525,400	9,677,300	22,120,600	595,200	2.8%	22,696,400
2.2 Workforce Development	381,800	462,900	222,800	593,700	130,800	28.3%	593,700
2.3 Overtime	1,938,200	1,336,600	949,600	1,473,600	137,000	10.2%	1,473,600
2.4 Employee Benefits	6,210,000	7,077,700	3,695,200	7,500,800	423,100	6.0%	7,813,500
2.5 Transition Services	882,500	676,200	232,800	588,100	(88,100)	-13.0%	588,100
3.1 Electric	159,000	131,500	59,900	146,700	15,200	11.6%	147,000
3.2 Gas	200	10,100	100	500	(9,600)	-95.0%	500
3.3 Sewage Service	8,800	16,000	500	9,000	(7,000)	-43.8%	9,000
3.4 Water Service	500	1,000	200	600	(400)	-40.0%	600
4.2 Supplies & Other	10,256,000	11,275,900	4,319,500	11,803,600	527,700	4.7%	11,294,500
4.3 Contractual Services	49,343,700	57,135,500	26,807,500	54,381,700	(2,753,800)	-4.8%	54,047,800
5.1 Capital Program Allocation	(90,800)	(486,900)	(25,100)	(231,800)	255,100	-52.4%	(232,700)
5.2 Shared Services	(5,740,300)	(4,468,900)	(2,414,500)	(2,806,300)	1,662,600	-37.2%	(1,159,100)
6.0 Capital Outlay	2,249,100	4,840,500	2,310,900	5,503,300	662,800	13.7%	5,998,800
7.0 Unallocated Reserve	-	7,379,600	-	1,637,200	(5,742,400)	-77.8%	1,463,000
<b>Grand Total</b>	<b>\$ 108,182,300</b>	<b>\$ 136,540,900</b>	<b>\$ 60,014,100</b>	<b>\$ 134,430,600</b>	<b>\$ (2,110,300)</b>	<b>-1.5%</b>	<b>\$ 137,291,700</b>

**Table 4 – Five Year Cost Subject to Allocation by Expense Category**

Expense Categories	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Administrative Services</b>	<b>\$ 29,627,800</b>	<b>\$ 14,177,400</b>	<b>\$ 31,709,300</b>	<b>\$ 32,557,000</b>	<b>\$ 33,119,700</b>	<b>\$ 33,747,600</b>	<b>\$ 34,370,700</b>
2.1 Salaries & Wages	12,336,500	5,952,700	13,485,100	13,521,600	13,524,800	13,528,000	13,531,200
2.2 Workforce Development	-	-	12,800	12,800	12,800	12,800	12,800
2.3 Overtime	21,100	10,100	18,100	18,100	18,100	18,100	18,100
2.4 Employee Benefits	3,588,200	1,830,600	3,939,200	4,028,000	4,103,800	4,180,100	4,255,900
2.5 Transition Services	1,671,700	724,600	1,964,500	1,964,500	1,964,500	1,964,500	1,964,500
3.1 Electric	3,000	2,100	28,000	28,600	29,100	33,800	34,500
3.2 Gas	7,500	2,400	26,500	27,100	27,600	32,300	32,900
3.3 Sewage Service	12,200	8,800	33,800	34,200	34,800	39,700	40,400
3.4 Water Service	500		6,500	6,600	6,800	11,000	11,200
4.2 Supplies & Other	1,551,100	493,500	1,904,000	1,873,100	1,874,200	1,905,800	1,914,600
4.3 Contractual Services	10,673,200	5,235,200	10,145,800	10,487,800	10,573,000	10,866,400	11,157,400
5.1 Capital Program Allocation	(78,500)	(12,300)	(84,900)	(85,300)	(85,600)	(86,000)	(86,300)
5.2 Shared Services	(288,900)	(70,300)	(268,400)	(273,700)	(279,200)	(284,800)	(290,400)
7.0 Unallocated Reserve	130,200	-	498,300	913,600	1,315,000	1,525,900	1,773,900
<b>Centralized Services</b>	<b>106,913,100</b>	<b>45,836,700</b>	<b>102,721,300</b>	<b>104,734,700</b>	<b>101,578,500</b>	<b>100,978,600</b>	<b>100,260,600</b>
2.1 Salaries & Wages	21,525,400	9,677,300	22,120,600	22,696,400	22,879,200	22,879,200	22,879,200
2.2 Workforce Development	462,900	222,800	593,700	593,700	593,700	593,700	593,700
2.3 Overtime	1,336,600	949,600	1,473,600	1,473,600	1,473,600	1,473,600	1,473,600
2.4 Employee Benefits	7,077,700	3,695,200	7,500,800	7,813,500	8,014,100	8,162,400	8,311,000
2.5 Transition Services	676,200	232,800	588,100	588,100	588,100	588,100	588,100
3.1 Electric	131,500	59,900	146,700	147,000	147,200	147,400	148,000
3.2 Gas	10,100	100	500	500	500	500	500
3.3 Sewage Service	16,000	500	9,000	9,000	9,000	9,000	9,000
3.4 Water Service	1,000	200	600	600	600	600	600
4.2 Supplies & Other	11,275,900	4,319,500	11,803,600	11,294,500	11,420,700	11,561,700	11,503,700
4.3 Contractual Services	57,135,500	26,807,500	54,381,700	54,047,800	51,343,900	49,949,900	49,638,800
5.1 Capital Program Allocation	(486,900)	(25,100)	(231,800)	(232,700)	(233,600)	(234,500)	(235,300)
5.2 Shared Services	(4,468,900)	(2,414,500)	(2,806,300)	(1,159,100)	(1,182,200)	(1,205,900)	(1,230,000)
6.0 Capital Outlay	4,840,500	2,310,900	5,503,300	5,998,800	4,906,500	5,406,500	4,930,000
7.0 Unallocated Reserve	7,379,600	-	1,637,200	1,463,000	1,617,200	1,646,400	1,649,700
<b>Grand Total</b>	<b>\$ 136,540,900</b>	<b>\$ 60,014,100</b>	<b>\$ 134,430,600</b>	<b>\$ 137,291,700</b>	<b>\$ 134,698,200</b>	<b>\$ 134,726,200</b>	<b>\$ 134,631,300</b>

**Table 5 – Biennial Costs Subject to Allocation by Team**

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Administrative Services</b>	<b>\$ 25,118,700</b>	<b>\$ 29,627,800</b>	<b>\$ 14,177,400</b>	<b>\$ 31,709,300</b>	<b>\$ 2,081,500</b>	<b>7.0%</b>	<b>\$ 32,557,000</b>
Chief Executive Officer	669,500	809,700	347,700	860,600	50,900	6.3%	871,600
Chief Administrative Officer	731,100	936,600	350,900	1,123,600	187,000	20.0%	1,131,600
General Counsel	2,006,600	3,038,900	1,459,700	3,111,200	72,300	2.4%	3,157,800
Organizational Development	3,207,300	4,366,400	1,623,700	4,421,200	54,800	1.3%	4,708,200
Public Affairs	1,261,700	1,386,100	603,800	1,587,900	201,800	14.6%	1,593,200
Risk Management and Safety	3,773,900	4,231,100	2,675,300	4,462,700	231,600	5.5%	4,516,500
Financial Services	13,468,600	14,728,800	7,116,300	15,643,800	915,000	6.2%	15,664,500
Unallocated Reserve	-	130,200	-	498,300	368,100	282.7%	913,600
<b>Centralized Services</b>	<b>83,063,600</b>	<b>106,913,100</b>	<b>45,836,700</b>	<b>102,721,300</b>	<b>(4,191,800)</b>	<b>-3.9%</b>	<b>104,734,700</b>
Fleet & Facility Operations	6,887,500	8,634,500	4,710,300	8,297,300	(337,200)	-3.9%	8,282,600
Systems Operations Control	10,746,800	10,039,700	4,465,300	9,958,700	(81,000)	-0.8%	9,969,200
Field Service Operations	16,729,500	17,993,100	7,202,400	17,958,100	(35,000)	-0.2%	18,127,800
Information Technology	25,960,300	35,831,700	16,945,400	38,976,700	3,145,000	8.8%	40,383,900
Energy, Research & Innovation	1,852,400	2,103,800	611,600	2,785,500	681,700	32.4%	2,787,800
Planning Services	15,139,500	19,131,600	8,856,000	17,100,900	(2,030,700)	-10.6%	17,700,000
Security & Integrity	5,747,600	5,799,100	3,045,700	5,959,400	160,300	2.8%	6,019,100
Unallocated Reserve	-	7,379,600	-	1,684,700	(5,694,900)	-77.2%	1,464,300
<b>Grand Total</b>	<b>\$ 108,182,300</b>	<b>\$ 136,540,900</b>	<b>\$ 60,014,100</b>	<b>\$ 134,430,600</b>	<b>\$ (2,110,300)</b>	<b>-1.5%</b>	<b>\$ 137,291,700</b>

**Table 6 – Five Year Costs Subject to Allocation by Team**

Team	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Administrative Services</b>	<b>\$ 25,118,700</b>	<b>\$ 29,627,800</b>	<b>\$ 14,177,400</b>	<b>\$ 31,709,300</b>	<b>\$ 32,557,000</b>	<b>\$ 33,119,700</b>	<b>\$ 33,747,600</b>	<b>\$ 34,370,700</b>
Chief Executive Officer	669,500	809,700	347,700	860,600	871,600	882,300	893,600	904,700
Chief Administrative Officer	731,100	936,600	350,900	1,123,600	1,131,600	1,139,700	1,154,700	1,163,100
General Counsel	2,006,600	3,038,900	1,459,700	3,111,200	3,157,800	3,205,100	3,303,900	3,354,300
Organizational Development	3,207,300	4,366,400	1,623,700	4,421,200	4,708,200	4,746,900	4,835,000	4,995,100
Public Affairs	1,261,700	1,386,100	603,800	1,587,900	1,593,200	1,572,200	1,578,500	1,563,800
Risk Management and Safety	3,773,900	4,231,100	2,675,300	4,462,700	4,516,500	4,570,100	4,624,800	4,717,200
Financial Services	13,468,600	14,728,800	7,116,300	15,643,800	15,664,500	15,688,400	15,831,200	15,898,600
Unallocated Reserve	-	130,200	-	498,300	913,600	1,315,000	1,525,900	1,773,900
<b>Centralized Services</b>	<b>83,063,600</b>	<b>106,913,100</b>	<b>45,836,700</b>	<b>102,721,300</b>	<b>104,734,700</b>	<b>101,578,500</b>	<b>100,978,600</b>	<b>100,260,600</b>
Fleet & Facility Operations	6,887,500	8,634,500	4,710,300	8,297,300	8,282,600	8,328,700	8,372,200	8,382,100
Systems Operations Control	10,746,800	10,039,700	4,465,300	9,958,700	9,969,200	9,979,700	9,989,600	9,999,400
Field Service Operations	16,729,500	17,993,100	7,202,400	17,958,100	18,127,800	18,297,800	18,326,000	18,354,500
Information Technology	25,960,300	35,831,700	16,945,400	38,976,700	40,383,900	36,925,600	37,128,500	36,655,600
Energy, Research & Innovation	1,852,400	2,103,800	611,600	2,785,500	2,787,800	2,792,100	2,796,300	2,800,600
Planning Services	15,139,500	19,131,600	8,856,000	17,100,900	17,700,000	17,588,300	16,662,100	16,283,200
Security & Integrity	5,747,600	5,799,100	3,045,700	5,959,400	6,019,100	6,001,100	6,039,300	6,087,100
Unallocated Reserve	-	7,379,600	-	1,684,700	1,464,300	1,665,200	1,664,600	1,698,100
<b>Grand Total</b>	<b>\$ 108,182,300</b>	<b>\$ 136,540,900</b>	<b>\$ 60,014,100</b>	<b>\$ 134,430,600</b>	<b>\$ 137,291,700</b>	<b>\$ 134,698,200</b>	<b>\$ 134,726,200</b>	<b>\$ 134,631,300</b>

**Tables 7 and 8 Cost Allocation - Water and Wastewater Percentages** presents the projected aggregate allocation percentages for the biennial 2021-2022 and the five-year periods 2021 through 2025. The percentages are based off the data presented in tables 1 and 2 above.

**Table 7 – Biennial Cost Allocated Percentages**

Expense Categories	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Centralized Services</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-3.0%</b>	<b>100.0%</b>
Water	43.3%	52.1%	51.1%	48.0%	-1.4%	48.0%
Wastewater	56.7%	47.9%	48.9%	52.0%	-1.6%	52.0%
<b>Administrative Services</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>1.5%</b>	<b>100.0%</b>
Water	50.0%	52.1%	50.0%	50.0%	1.2%	50.0%
Wastewater	50.0%	47.9%	50.0%	50.0%	0.3%	50.0%
<b>Total Allocated Services</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>-1.5%</b>	<b>100.0%</b>
Water	44.9%	52.1%	50.8%	48.5%	-0.2%	48.5%
Wastewater	55.1%	47.9%	49.2%	51.5%	-1.3%	51.5%

**Table 8 – Five Year Projected Cost Allocated Percentages**

Expense Categories	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Centralized Services</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Water	43.3%	47.9%	48.9%	48.0%	48.0%	48.0%	48.0%	48.0%
Wastewater	56.7%	52.1%	51.1%	52.0%	52.0%	52.0%	52.0%	52.0%
<b>Administrative Services</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Water	50.0%	47.9%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Wastewater	50.0%	52.1%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
<b>Total Allocated Services</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>
Water	44.9%	47.9%	49.2%	48.5%	48.5%	48.5%	48.5%	48.5%
Wastewater	55.1%	52.1%	50.8%	51.5%	51.5%	51.5%	51.5%	51.5%

A clear long-term objective of the Great Lakes Water Authority (GLWA) is to reduce the level of annual debt service as a percent of the revenue requirements to reach our organizational goal of a bond credit rating of AA. For the FY 2021 budget, debt service is 42% of the water system revenue requirement and 43% of the sewer system revenue requirement. For the FY 2022 budget, debt service is 40% of the water system revenue requirement and 43% of the sewer system revenue requirement. Where possible, the GLWA is seeking to maximize the use of lower interest cost loan programs through the State Revolving Fund such as the Drinking Water Revolving Fund (DWRf) and the Clean Water Revolving Fund (CWRf) programs.

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 represent pledged assets for the payment of the bonds. Revenues collections from both systems are therefore deposited with 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 <https://www.glwater.org/investor-relations/>.

As a regional authority established under Michigan Public Act 233 of 1955, GLWA may only issue Revenue Bonds under Michigan Public Act 94 of 1933 (PA 94). PA 94 does not have a legal debt limitation for the amount of outstanding bonds that GLWA may issue. Under the Master Bond Ordinance, GLWA is authorized to issues additional bonds, but only if GLWA certifies that the additional bonds debt service coverage for each priority of lien (regardless of the priority of lien of the additional bonds) is not less than the required coverage as stated in the MBO.

GLWA computes the debt service coverage ratio using two different methodologies. The Rate Covenant Basis uses a pledged revenue on a cash basis methodology and the GAAP Basis uses a pledged revenue on an accrual basis methodology. Pledged revenue is divided by the debt service requirements of each lien on a rate covenant basis to compute the debt service coverage ratio. The rate covenant basis is defined as the cash available to make the debt service payments on the due dates. The table below details the components of the pledged revenue for each methodology.

<b>Components of Pledged Revenue</b>	<b>Pledged Revenue Calculation</b>	<b>Rate Covenant Basis</b>	<b>GAAP Basis</b>
Revenues	Addition	Cash basis	Accrual basis
GLWA O&M expenses	Subtraction	Cash basis	Accrual basis
GLWA O&M pension	Subtraction	Cash basis	Cash basis
DWSD O&M expenses & O&M pension	Subtraction	Cash transfers to DWSD	Cash transfers to DWSD

The tables below provided a summary of the MBO required minimum, historical and budgeted debt service coverage ratios.

Debt Service Coverage Water Fund							
	MBO Required Minimum	Actual 2017	Actual 2018	Actual 2019	Adopted Budget 2020	Adopted Budget 2021	Adopted Budget 2022
<b>Rate Covenant Basis</b>							
Senior Lien Bonds	1.20	2.12	2.07	2.13	1.94	1.81	1.84
Senior and second lien bonds	1.10	1.64	1.55	1.54	1.40	1.32	1.38
All bonds, including SRF junior lien	1.00	1.62	1.53	1.51	1.38	1.28	1.32
<b>GAAP Basis</b>							
Senior Lien Bonds		2.10	2.12	2.04			
Senior and second lien bonds		1.63	1.59	1.47			
All bonds, including SRF junior lien		1.61	1.57	1.45			

Debt Service Coverage Sewage Disposal Fund							
	MBO Required Minimum	Actual 2017	Actual 2018	Actual 2019	Adopted Budget 2020	Adopted Budget 2021	Adopted Budget 2022
<b>Rate Covenant Basis</b>							
Senior Lien Bonds	1.20	2.03	2.05	2.14	2.11	2.44	2.38
Senior and second lien bonds	1.10	1.51	1.57	1.65	1.61	1.73	1.78
All bonds, including SRF junior lien	1.00	1.22	1.25	1.31	1.26	1.34	1.39
<b>GAAP Basis</b>							
Senior Lien Bonds		2.49	2.20	2.10			
Senior and second lien bonds		1.86	1.68	1.61			
All bonds, including SRF junior lien		1.50	1.34	1.28			

The tables below provide an analysis of the annual debt service budgets for FY 2021 and FY 2022 for the water system and the sewage disposal system. The debt service budget is based on cash needed to make the debt payments on the respective due dates. The majority of GLWA's debt has payments due on July 1<sup>st</sup>, therefore, those amounts are included in the calculation of the debt service requirements of the previous fiscal year budget ending June 30<sup>th</sup>. Also included are prorated portions of debt payments with varying due dates throughout the year.

Annual Debt Service on a Budget Set Aside Basis - Water Fund							
	FY 2021			FY 2022			
	Current	Proposed	Total	Current	Proposed	Total	
<b>Principal</b>							
Senior Lien	\$ 48,980,000	\$ -	\$ 48,980,000	\$ 52,225,000	\$ 1,783,000 (2)	\$ 54,008,000	
Second Lien	19,145,000	-	19,145,000	15,505,000	-	15,505,000	
Junior Lien-SRF	2,546,300	-	2,546,300	3,103,800	-	3,103,800	
<b>Total Principal</b>	<u>\$ 70,671,300</u>	<u>\$ -</u>	<u>\$ 70,671,300</u>	<u>\$ 70,833,800</u>	<u>\$ 1,783,000</u>	<u>\$ 72,616,800</u>	
<b>Interest</b>							
Senior Lien	\$ 77,636,400	\$ 4,000,000 (2)	\$ 81,636,400	\$ 75,187,400	\$ 4,000,000 (2)	\$ 79,187,400	
Second Lien	30,135,800	-	30,135,800	29,178,600	-	29,178,600	
Junior Lien-SRF	\$1,110,800	1,383,800 (1)	2,494,600	\$1,529,300	3,158,600 (1)	4,687,900	
<b>Total Interest</b>	<u>\$ 108,883,000</u>	<u>\$ 5,383,800</u>	<u>\$ 114,266,800</u>	<u>\$ 105,895,300</u>	<u>\$ 7,158,600</u>	<u>\$ 113,053,900</u>	
<b>Total Debt Service</b>							
Senior Lien	\$ 126,616,400	\$ 4,000,000 (2)	\$ 130,616,400	\$ 127,412,400	\$ 5,783,000 (2)	\$ 133,195,400	
Second Lien	49,280,800	-	49,280,800	44,683,600	-	44,683,600	
Junior Lien-SRF	3,657,100	1,383,800 (1)	5,040,900	4,633,100	3,158,600 (1)	7,791,700	
<b>Total Debt Service</b>	<u>\$ 179,554,300</u>	<u>\$ 5,383,800</u>	<u>\$ 184,938,100</u>	<u>\$ 176,729,100</u>	<u>\$ 8,941,600</u>	<u>\$ 185,670,700</u>	
<b>Allocation of Debt Service (see Core Financial Plan Schedule 3)</b>							
Debt Service Allocable to Regional System			\$ 143,189,900			\$ 141,151,000	
Debt Service Allocable to Local System			41,748,200			44,519,700	
<b>Total Debt Service</b>			<u>\$ 184,938,100</u>			<u>\$ 185,670,700</u>	

(1) Includes debt service payments for increases in the Drinking Water Revolving Fund (DWRF) loans for regional and local system improvements.

(2) Includes debt service payments from the issuance of \$100 million in Water Revenue Bonds for local system improvements in FY 2020.



Annual Debt Service on a Budget Set Aside Basis - Sewage Disposal Fund						
	FY 2021			FY 2022		
	Current	Proposed	Total	Current	Proposed	Total
<b>Principal</b>						
Senior Lien Fixed Capital	\$ 41,635,000	\$ -	\$ 41,635,000	\$ 62,175,000	\$ -	\$ 62,175,000
Appreciation Senior Lien	1,521,000	-	1,521,000	-	-	-
Variable Rate	-	-	-	-	-	-
Senior Lien-SRF	3,922,500	-	3,922,500	2,867,500	-	2,867,500
Second Lien	17,515,000	-	17,515,000	11,905,000	-	11,905,000
Junior Lien-SRF & SAW	44,092,500	-	44,092,500	45,143,100	-	45,143,100
<b>Total Principal</b>	<b>\$ 108,686,000</b>	<b>\$ -</b>	<b>\$ 108,686,000</b>	<b>\$ 122,090,600</b>	<b>\$ -</b>	<b>\$ 122,090,600</b>
<b>Interest</b>						
Senior Lien	\$ 77,164,700	\$ -	\$ 77,164,700	\$ 75,162,900	\$ -	\$ 75,162,900
Capital						
Appreciation Senior Lien	4,154,000	-	4,154,000	-	-	-
Variable Rate	4,101,600	-	4,101,600	4,101,400	-	4,101,400
Senior Lien-SRF	187,800	-	187,800	89,700	-	89,700
Second Lien	37,127,000	-	37,127,000	36,199,300	-	36,199,300
Junior Lien-SRF & SAW	9,532,500	615,700 (1)	10,148,200	8,561,700	1,412,600 (1)	9,974,300
<b>Total Interest</b>	<b>\$ 132,267,600</b>	<b>\$ 615,700</b>	<b>\$ 132,883,300</b>	<b>\$ 124,115,000</b>	<b>\$ 1,412,600</b>	<b>\$ 125,527,600</b>
<b>Total Debt Service</b>						
Senior Lien	\$ 118,799,700	\$ -	\$ 118,799,700	\$ 137,337,900	\$ -	\$ 137,337,900
Senior Lien Capital	5,675,000	-	5,675,000	-	-	-
Senior Lien Variable Rate	4,101,600	-	4,101,600	4,101,400	-	4,101,400
Senior Lien-SRF	4,110,300	-	4,110,300	2,957,200	-	2,957,200
Second Lien	54,642,000	-	54,642,000	48,104,300	-	48,104,300
Junior Lien-SRF & SAW	53,625,000	615,700 (1)	54,240,700	53,704,800	1,412,600 (1)	55,117,400
<b>Total Debt Service</b>	<b>\$ 240,953,600</b>	<b>\$ 615,700</b>	<b>\$ 241,569,300</b>	<b>\$ 246,205,600</b>	<b>\$ 1,412,600</b>	<b>\$ 247,618,200</b>
<b>Allocation of Debt Service (see Core Financial Plan Schedule 3)</b>						
Debt Service Allocable to Regional System			\$ 209,739,900			\$ 215,438,500
Debt Service Allocable to Local System			31,829,400			32,179,700
<b>Total Debt Service</b>			<b>\$ 241,569,300</b>			<b>\$ 247,618,200</b>

(1) Includes debt service payments for increases in the Clean Water Revolving Fund (CWF) loans for regional and local system improvements.

The tables below show the projected outstanding debt activity for FY 2020 through FY 2022. The beginning and ending balances are as of July 1<sup>st</sup> since the fiscal year budgeted debt requirements include payments due on July 1st of the following fiscal year.

Projected Debt Activity Water Fund							
Fiscal Year	Projected Balance July 1st (1)	Payments (2)	Additions				Projected Balance July 1st (3)
			Regional System		Local System		
			Revenue Bonds	SRF Draws	Revenue Bonds	SRF Draws	
FY 2020	\$ 2,239,975,800	\$ (62,870,000)	\$ -	\$ 12,898,300	\$ 100,000,000	\$ 5,700,000	\$ 2,295,704,100
FY 2021	\$ 2,295,704,100	\$ (70,671,300)	\$ -	\$ 12,365,800	\$ -	\$ 16,000,000	\$ 2,253,398,600
FY 2022	\$ 2,253,398,600	\$ (72,616,800)	\$ -	\$ 16,590,200	\$ -	\$ 25,000,000	\$ 2,222,372,000

Projected Debt Activity Sewage Disposal Fund								
Fiscal Year	Projected Balance July 1st (1)	Payments (2)	Additions				Projected Balance July 1st (3)	
			Regional System		Local System			
			Revenue Bonds	SRF Draws	Revenue Bonds	SRF Draws		
FY 2020	\$ 3,060,487,100	\$ (112,535,000)	\$ -	\$ 40,505,000	\$ -	\$ -	\$ 2,988,457,100	
FY 2021	\$ 2,988,457,100	\$ (108,686,000)	\$ -	\$ 33,200,000	\$ -	\$ 8,000,000	\$ 2,920,971,100	
FY 2022	\$ 2,920,971,100	\$ (122,090,600)	\$ -	\$ 15,112,000	\$ -	\$ 10,000,000	\$ 2,823,992,500	

- (1) Fiscal year is July 1 through June 30. Balance shown is after July 1st debt payments have been made as budgeted debt service is based on a debt set aside basis.
- (2) Principal payments are based on the budget set aside basis which includes payments made during the last week in June of the fiscal year and the payments made July 1st, the first day after the fiscal year ends.
- (3) Balance shown does not represents balance on June 30th the last day of the fiscal year. Balance is for July 1st of the next fiscal year, since the fiscal year budgeted debt requirements include payments due on July 1st of the following fiscal year.

**Water Fund Additions:** Based on the Projected Capital Expenditures included in the FY 2021 to FY 2025 Water Supply System Capital Improvement Plan and the Capital Program Spend Rate Assumption of 75 percent, the GLWA will need to issue approximately \$12,365,000 in Drinking Water Revolving Fund (DWRF) loans for the regional system and \$16,000,000 DWRF loans on behalf of the local system in FY 2021. GLWA will need to issue \$16,590,200 in DWRF loans in FY 2022 for the regional system and \$25,000,000 in DWRF loans on behalf of the local system. In FY 2020 the GLWA will also issue approximately \$100,000,000 in New Money Water System Revenue Bonds on behalf of the local system.

**Sewer Fund Additions:** Based on the Projected Capital Expenditures included in the FY 2021 to FY 2025 Sewage Disposal System Capital Improvement Plan and the Capital Program Spend Rate Assumption of 75 percent, the GLWA will need to issue approximately \$33,200,000 in Clean Water Revolving Fund (CWRF) loans for the regional system and \$8,000,000 in CWRF loans on behalf of the local system in FY 2021. In FY 2022 the GLWA will need to issue approximately \$15,112,000 in CWRF loans for the regional system. GLWA will also issue on behalf of the local system \$10,000,000 CWRF loans in FY 2022.

## Legacy Commitments

In municipal finance, the term “legacy obligations” represents unfunded liabilities accrued over prior decades. In the context of the GLWA, legacy obligations represent an allocable portion of the DWSD’s closed defined benefit pension and restructured retiree healthcare liability obligation. The terms of that obligation were established in the City of Detroit’s Chapter 9 bankruptcy plan of adjustment (POA) approved on December 10, 2014. With the standup of the GLWA on January 1, 2016, those legacy obligations were bifurcated between GLWA and DWSD. That allocation was based upon a review of wholesale and retail data in cost of service studies at intervals throughout the prior three decades.

### Background – Prior to January 1, 2016 Bifurcation

The City of Detroit’s Chapter 9 bankruptcy POA, approved on December 10, 2014, materially restructured the City’s pension and retiree healthcare plan (otherwise referenced as other post-employment benefits or OPEB). Under the POA, the City of Detroit General Retirement System (GRS) defined benefit plan was frozen as of July 1, 2014 and closed to new participants; however, the City retained the responsibility to fund amounts necessary to provide adjusted (reduced) pension benefits to employees and retirees who accrued benefits under the GRS Plan. Claims relating to the City’s pension obligation certificates and post-retirement health benefits were funded by the City’s Financial Recovery Bonds, Series 2014-B(1), Series 2014-B(2) and Series 2014-C. DWSD was assigned an allocable share of those bonds.

The plan of adjustment required the following of DWSD as it related to the GRS Component II frozen, closed pension plan.

1. Annual payments by the DWSD to fully fund its portion of the closed defined benefit pension liability due to the GRS over nine years beginning in fiscal year 2015. Under the POA, an assumed investment rate of 6.75% and then-available mortality tables were utilized in calculating the potential size of the Systems’ remaining liability.
2. The water and sewer systems (the Systems’) are required to contribute \$42.9 million annually to the GRS, plus \$2.5 million per year in administrative expenses, for a total of \$45.4 million for the nine fiscal years beginning on July 1, 2014 and ending on June 30, 2023. The required funding under the POA represents a substantial reduction in the Systems’ overall funding obligation from the pre-bankruptcy liability.
3. The Systems’ remain responsible for the remaining allocable share of the unfunded accrued actuarial liability (UAAL) of the GRS after the initial nine-year period. The amount of the unknown tail pension liability payable to GRS in year ten (FY 2024) was represented as minimal at the time of the POA.

It is important to note that the annual payment represents both a normal expense plus an advance payment of a liability that would otherwise be amortized over a period up to 30 years. For that reason, a portion of the payment is treated as an operations & maintenance expense as a proxy for normal cost under the MBO flow of funds including the administrative fee. The remaining non-operating portion is treated as a long-term debt payment subordinate to bonded debt in the MBO flow of funds. The split between operating and nonoperating is shown in Table 1. For financial reporting purposes, the expenses and amortization related to the pension payments are reported in the nonoperating section of the statement of revenue, expenses and changes in fund net position.

The POA required the following of DWSD as it related to the Financial Recovery Bonds (BC Notes) for pension obligation certificates and post-retirement health benefits.

1. The DWSD is 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.
2. Payments are based on the allocable share of the B and C notes payment schedules. The payments for the next 5 years are included in Table 1 below. The B note payments end in fiscal year 2044. The C note payments end in fiscal year 2027.

### January 1, 2016 – Operational Effective Date of Bifurcated Legacy Obligations

With the stand-up of the Authority on January 1, 2016, the legacy obligations for the GRS Pension and BC Notes obligation were allocated between the local and regional systems. Cost of service studies at intervals throughout the prior three decades were reviewed to establish the allocation between the water and sewer systems as well as wholesale and retail customer cost pools. Based upon the review of that information, the Chief Executive Officer for the GLWA and Director for DWSD authorized the GRS to begin accounting for pension cost pool activity with the GLWA allocated 70.3% of the pension activity and the DWSD allocated 29.7% of the pension activity. This was formalized in a letter dated January 24, 2017. The BC Notes are allocated 71.42% to GLWA and 28.58% to DWSD. The costs were further allocated between the water and sewer funds as shown below:

	Water	Sewer	Total
<b>Pension Obligation</b>			
GLWA Regional System	25.20%	45.10%	70.30%
DWSD Local System	17.80%	11.90%	29.70%
Total	43.00%	57.00%	100.00%
<b>BC Notes</b>			
GLWA Regional System	21.98%	49.44%	71.42%
DWSD Local System	15.52%	13.06%	28.58%
Total	37.50%	62.50%	100.00%

Leading up to the operational effective date, one of the required tasks was development of an agreement among the GRS, the City of Detroit and the GLWA regarding the GRS Defined Benefit Plan (the “pension agreement”). This agreement, dated December 1, 2015, establishes certain disclosures, calculations, and other recordkeeping by the GRS, its auditors, and its actuaries.

The pension agreement also requires the GRS to provide the GLWA with a determination of the UAAL for the Authority Pension Pool using the market value of assets for the Authority Pension Pool and whether the Authority Pension Pool is funded at 100%. If the Authority Pension Pool is less than 100% funded, then the Authority is required to make such level annual contributions to the GRS as necessary to amortize such shortfall over five years (as provided in the leases or such greater period not to exceed ten years as agreed upon by GRS and the Authority) at an interest rate equal to the then current GRS investment return assumption.

The pension agreement further establishes a requirement for reporting of the annual funded administrative expenses (which is set at \$2.5 million annually) compared to actual in the annual GRS audit report. During FY 2024 the City and the Authority shall mutually determine and resolve whether the aggregate excess or shortfall shall have any effect on the payments to GRS. The amount paid in excess of administrative expenses as of June 30, 2019 is approximately \$4.6 million and is recorded as a prepaid expense by each entity for their respective allocation.

### **Future Planning**

The sufficiency of the funding plan for the GRS in limiting the tail liability is a growing concern. The GRS Legacy Plan fiduciary net position as a percent of the total pension liability was 65.81% as reported in the June 30, 2019 GRS GASB Statement Nos. 67 and 68 Accounting and Financial Reporting for the Pension Plans of Component II. The pension payments in Table 1 for FY2020 through FY2023 are based on an agreed upon payment schedule. For budget purposes, the FY 2024 and FY 2025 contributions were based on the June 30, 2018 actuarial valuation estimate of the FY 2024 contribution. The DWSD’s annual contribution for FY 2024 is projected to be between \$5.7 million and \$7.3 million. The Authority is using \$7.5 million for FY 2024 and FY 2025 as reflected in Table I Total Legacy Pension Payment-Component II.

The administrative fee for FY 2024 and FY2025 is expected to be covered by the anticipated excess payments made in previous fiscal years.

GLWA management continues to have ongoing conversations with the City of Detroit, the DWSD and the GRS personnel regarding concern over the growing liability and continues to seek innovative solutions to protect the financial sustainability of all parties.

**Table 1 – Legacy Obligation Allocation** – The blue and green highlighted amounts are included in the budget revenue requirements.

Description	Allocation Percentage	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
<b>Operations &amp; Maintenance (O&amp;M) Portion of Legacy Payments-Component II</b>						
<b>O&amp;M Admin Fee (a)</b>						
GLWA-Water	25.20%	\$ 630,000	\$ 630,000	\$ 630,000	\$ -	\$ -
GLWA-Sewer	45.10%	\$ 1,127,500	\$ 1,127,500	\$ 1,127,500	\$ -	\$ -
DWSD-R-Water	17.80%	\$ 445,000	\$ 445,000	\$ 445,000	\$ -	\$ -
DWSD-R-Sewer	11.90%	\$ 297,500	\$ 297,500	\$ 297,500	\$ -	\$ -
<b>Subtotal - Admin Fee in O&amp;M</b>		<b>\$ 2,500,000</b>	<b>\$ 2,500,000</b>	<b>\$ 2,500,000</b>	<b>\$ -</b>	<b>\$ -</b>
<b>O&amp;M Legacy Pension (b)</b>						
GLWA-Water	25.20%	\$ 5,418,000	\$ 5,418,000	\$ 5,418,000	\$ -	\$ -
GLWA-Sewer	45.10%	\$ 9,696,500	\$ 9,696,500	\$ 9,696,500	\$ -	\$ -
DWSD-R-Water	17.80%	\$ 3,827,000	\$ 3,827,000	\$ 3,827,000	\$ -	\$ -
DWSD-R-Sewer	11.90%	\$ 2,558,500	\$ 2,558,500	\$ 2,558,500	\$ -	\$ -
<b>Subtotal - O&amp;M Legacy Pension</b>		<b>\$ 21,500,000</b>	<b>\$ 21,500,000</b>	<b>\$ 21,500,000</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Total O&amp;M Legacy Pension Payment (c) (Admin Fee (a) plus Pension Contribution (b))</b>						
GLWA-Water	25.20%	\$ 6,048,000	\$ 6,048,000	\$ 6,048,000	\$ -	\$ -
GLWA-Sewer	45.10%	\$ 10,824,000	\$ 10,824,000	\$ 10,824,000	\$ -	\$ -
DWSD-R-Water	17.80%	\$ 4,272,000	\$ 4,272,000	\$ 4,272,000	\$ -	\$ -
DWSD-R-Sewer	11.90%	\$ 2,856,000	\$ 2,856,000	\$ 2,856,000	\$ -	\$ -
<b>Total O&amp;M Legacy Pension Payment</b>		<b>\$ 24,000,000</b>	<b>\$ 24,000,000</b>	<b>\$ 24,000,000</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Nonoperating Portion of Legacy Payments-Component II (d)</b>						
GLWA-Water	25.20%	\$ 5,392,800	\$ 5,392,800	\$ 5,392,800	\$ 1,890,000	\$ 1,890,000
GLWA-Sewer	45.10%	\$ 9,651,400	\$ 9,651,400	\$ 9,651,400	\$ 3,382,500	\$ 3,382,500
DWSD-R-Water	17.80%	\$ 3,809,200	\$ 3,809,200	\$ 3,809,200	\$ 1,335,000	\$ 1,335,000
DWSD-R-Sewer	11.90%	\$ 2,546,600	\$ 2,546,600	\$ 2,546,600	\$ 892,500	\$ 892,500
<b>Total Nonoperating Legacy Pension Payment</b>		<b>\$ 21,400,000</b>	<b>\$ 21,400,000</b>	<b>\$ 21,400,000</b>	<b>\$ 7,500,000</b>	<b>\$ 7,500,000</b>
<b>Total Combined Legacy Pension O&amp;M and Nonoperating Payment-Component II (c plus d)</b>						
GLWA-Water	25.20%	\$ 11,440,800	\$ 11,440,800	\$ 11,440,800	\$ 1,890,000	\$ 1,890,000
GLWA-Sewer	45.10%	\$ 20,475,400	\$ 20,475,400	\$ 20,475,400	\$ 3,382,500	\$ 3,382,500
DWSD-R-Water	17.80%	\$ 8,081,200	\$ 8,081,200	\$ 8,081,200	\$ 1,335,000	\$ 1,335,000
DWSD-R-Sewer	11.90%	\$ 5,402,600	\$ 5,402,600	\$ 5,402,600	\$ 892,500	\$ 892,500
<b>Total Legacy Pension Payment-Component II</b>		<b>\$ 45,400,000</b>	<b>\$ 45,400,000</b>	<b>\$ 45,400,000</b>	<b>\$ 7,500,000</b>	<b>\$ 7,500,000</b>
<b>BC Notes (Nonoperating) (e)</b>						
GLWA-Water	21.98%	\$ 875,500	\$ 875,500	\$ 875,500	\$ 875,500	\$ 1,653,300
GLWA-Sewer	49.44%	\$ 1,969,300	\$ 1,969,300	\$ 1,969,300	\$ 1,969,300	\$ 3,718,800
DWSD-R-Water	15.52%	\$ 618,200	\$ 618,200	\$ 618,200	\$ 618,200	\$ 1,167,400
DWSD-R-Sewer	13.06%	\$ 520,200	\$ 520,200	\$ 520,200	\$ 520,200	\$ 982,400
<b>Total BC Notes (Nonoperating)</b>		<b>\$ 3,983,200</b>	<b>\$ 3,983,200</b>	<b>\$ 3,983,200</b>	<b>\$ 3,983,200</b>	<b>\$ 7,521,900</b>
<b>Total Accelerated Legacy Pension Payments (Nonoperating Pension (d) + BC Notes (e))</b>						
GLWA-Water		\$ 6,268,300	\$ 6,268,300	\$ 6,268,300	\$ 2,765,500	\$ 3,543,300
GLWA-Sewer		\$ 11,620,700	\$ 11,620,700	\$ 11,620,700	\$ 5,351,800	\$ 7,101,300
DWSD-R-Water		\$ 4,427,400	\$ 4,427,400	\$ 4,427,400	\$ 1,953,200	\$ 2,502,400
DWSD-R-Sewer		\$ 3,066,800	\$ 3,066,800	\$ 3,066,800	\$ 1,412,700	\$ 1,874,900
<b>Total Accelerated Legacy Pension Payments</b>		<b>\$ 25,383,200</b>	<b>\$ 25,383,200</b>	<b>\$ 25,383,200</b>	<b>\$ 11,483,200</b>	<b>\$ 15,021,900</b>



**Shared Services**

The GLWA and DWSD leverage economies of scale, assets, technology, and expertise by sharing services. The shared services agreement, dated December 1, 2015, is available at <https://www.glwater.org/investor-relations/>.

The shared services billing process began in FY 2016 and was new to both entities. The process is subject to manual tabulation until appropriate systems are in place. To best facilitate the tracking of expenses, the GLWA has designed its general ledger system to manage the budget and accumulate costs via a “contra” account in each cost center that matches the source of the expense (hence the contra amounts are shown as negative amounts). The net effect on the cost center expense is zero which preserves the basis for appropriate cost allocation. Amounts charged to DWSD for services are recorded in a manner consistent with other vendor expenses.

The tables below provide an overall look of the shared services that are included in the details of the budgets by operating area in Section 3 – Operating Financial Plans.

**Biennial Budget Request**

The biennial budget reflects an overall decrease in FY 2021 as a result of several shared services nearing completion in the Information Technology and Systems Analytics Areas. The GLWA and DWSD are continuing to evaluate operational goals.

*Biennial Budget by Area - Shared Services - GLWA as Provider*

Cost Center & Description	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Water System Operations</b>	<b>\$ (150,000)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.0%</b>	<b>\$ -</b>
882121 - Water Quality	(150,000)	-	-	-	-	0.0%	-
<b>Wastewater System Operations</b>	<b>(431,000)</b>	<b>(331,600)</b>	<b>(160,700)</b>	<b>(338,200)</b>	<b>(6,600)</b>	<b>2.0%</b>	<b>(344,900)</b>
892222 - Wastewater Process Control	(69,700)	(60,400)	(25,200)	(61,600)	(1,200)	2.0%	(62,800)
892270 - Combined Sewer Overflow	(18,600)	(19,000)	(9,400)	(19,400)	(400)	2.1%	(19,700)
892279 - Belle Isle Combined Sewer Overflow	(62,700)	(74,900)	(37,500)	(76,400)	(1,500)	2.0%	(77,900)
892342 - Belle Isle Pumping Station	(80,000)	(55,300)	(27,600)	(56,400)	(1,100)	2.0%	(57,500)
892343 - Blue Hill Pumping Station	(80,000)	(74,000)	(37,000)	(75,500)	(1,500)	2.0%	(77,000)
892347 - Fischer Pumping Station	(40,000)	(12,000)	(6,000)	(12,200)	(200)	1.7%	(12,500)
892352 - Woodmere Pumping Station	(80,000)	(36,000)	(18,000)	(36,700)	(700)	1.9%	(37,500)
<b>Centralized Services</b>	<b>(8,044,750)</b>	<b>(4,468,900)</b>	<b>(2,414,500)</b>	<b>(2,806,300)</b>	<b>1,662,600</b>	<b>-37.2%</b>	<b>(1,159,100)</b>
881201 - Security and Integrity	(284,500)	(325,000)	(162,500)	(331,500)	(6,500)	2.0%	(338,100)
882301 - Systems Operations Control	(552,600)	(429,200)	(214,600)	(437,800)	(8,600)	2.0%	(446,600)
882421 - Facility Operations	-	-	-	-	-	0.0%	-
882431 - Field Service Operations	(16,400)	(16,700)	(8,300)	(17,000)	(300)	1.8%	(17,400)
883321 - IT Service Delivery	(8,125)	-	-	-	-	0.0%	-
883331 - IT Infrastructure	(2,672,300)	(2,371,100)	(1,185,500)	(1,400,000)	971,100	-41.0%	(357,000)
883341 - IT Business Productivity Systems	(1,565,000)	-	-	-	-	0.0%	-
883351 - IT Enterprise Asset Management Systems	(2,423,125)	(1,205,800)	(768,000)	(620,000)	585,800	-48.6%	-
883361 - IT Security & Risk	(82,700)	(31,200)	(15,600)	-	31,200	-100.0%	-
886401 - Systems Analytics	(440,000)	(89,900)	(60,000)	-	89,900	-100.0%	-
<b>Administrative &amp; Other Services</b>	<b>(379,037)</b>	<b>(288,900)</b>	<b>(70,300)</b>	<b>(268,400)</b>	<b>20,500</b>	<b>-7.1%</b>	<b>(273,700)</b>
883101 - General Counsel	-	-	-	-	-	0.0%	-
883201 - Organizational Development	(6,700)	-	-	-	-	0.0%	-
884131 - Treasury	(334,237)	(250,000)	(50,800)	(250,000)	-	0.0%	(255,000)
884141 - Public Finance	(38,100)	(38,900)	(19,500)	(18,400)	20,500	-52.7%	(18,700)
<b>Grand Total</b>	<b>\$ (9,004,787)</b>	<b>\$ (5,089,400)</b>	<b>\$ (2,645,500)</b>	<b>\$ (3,412,900)</b>	<b>\$ 1,676,500</b>	<b>-32.9%</b>	<b>\$ (1,777,700)</b>

*Biennial Budget by Area - Shared Services - GLWA as Subscriber*

Cost Center & Description	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
<b>Centralized Services</b>	<b>\$ 5,785,800</b>	<b>\$ 5,594,000</b>	<b>\$ 2,797,000</b>	<b>\$ 3,583,400</b>	<b>\$ (2,010,600)</b>	<b>-35.9%</b>	<b>\$ 3,655,100</b>
882421 - Facility Operations	1,500,000	2,300,000	1,150,000	2,346,000	46,000	2.0%	2,392,900
882422 - Fleet Operations	2,230,900	1,590,000	795,000	-	(1,590,000)	-100.0%	-
882431 - Field Service Operations	194,900	200,000	100,000	204,000	4,000	2.0%	208,000
883331 - IT Infrastructure	1,010,000	1,010,000	505,000	153,000	(857,000)	-84.9%	156,100
883351 - IT Enterprise Asset Management Systems	850,000	494,000	247,000	880,400	386,400	78.2%	898,100
<b>Grand Total</b>	<b>\$ 5,785,800</b>	<b>\$ 5,594,000</b>	<b>\$ 2,797,000</b>	<b>\$ 3,583,400</b>	<b>\$ (2,010,600)</b>	<b>-35.9%</b>	<b>\$ 3,655,100</b>

## Five Year Financial Plan

### Five Year Financial Plan by Area - Shared Services - GLWA as Provider

Cost Center & Description	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Water System Operations</b>	\$ -	\$ -	\$ -	\$ -	0.0%	\$ -	\$ -	\$ -	\$ -
882121 - Water Quality	-	-	-	-	0.0%	-	-	-	-
<b>Wastewater System Operations</b>	(331,600)	(160,700)	(338,200)	(6,600)	2.0%	(344,900)	(351,900)	(359,000)	(366,300)
892222 - Wastewater Process	-	-	-	-	-	-	-	-	-
Control	(60,400)	(25,200)	(61,600)	(1,200)	2.0%	(62,800)	(64,100)	(65,400)	(66,700)
892270 - Combined Sewer	-	-	-	-	-	-	-	-	-
Overflow	(19,000)	(9,400)	(19,400)	(400)	2.1%	(19,700)	(20,100)	(20,500)	(20,900)
892279 - Belle Isle Combined Sewer	-	-	-	-	-	-	-	-	-
Overflow	(74,900)	(37,500)	(76,400)	(1,500)	2.0%	(77,900)	(79,500)	(81,100)	(82,700)
892342 - Belle Isle Pumping Station	(55,300)	(27,600)	(56,400)	(1,100)	2.0%	(57,500)	(58,700)	(59,900)	(61,100)
892343 - Blue Hill Pumping Station	(74,000)	(37,000)	(75,500)	(1,500)	2.0%	(77,000)	(78,500)	(80,100)	(81,700)
892347 - Fischer Pumping Station	(12,000)	(6,000)	(12,200)	(200)	1.7%	(12,500)	(12,700)	(13,000)	(13,300)
892352 - Woodmere Pumping Station	(36,000)	(18,000)	(36,700)	(700)	1.9%	(37,500)	(38,300)	(39,000)	(39,900)
<b>Centralized Services</b>	(4,468,900)	(2,414,500)	(2,806,300)	1,662,600	-37.2%	(1,159,100)	(1,182,200)	(1,205,900)	(1,230,000)
881201 - Security and Integrity	(325,000)	(162,500)	(331,500)	(6,500)	2.0%	(338,100)	(344,800)	(351,800)	(358,900)
882301 - Systems Operations	-	-	-	-	-	-	-	-	-
Control	(429,200)	(214,600)	(437,800)	(8,600)	2.0%	(446,600)	(455,500)	(464,600)	(473,800)
882421 - Facility Operations	-	-	-	-	0.0%	-	-	-	-
882431 - Field Service Operations	(16,700)	(8,300)	(17,000)	(300)	1.8%	(17,400)	(17,700)	(18,000)	(18,300)
883321 - IT Service Delivery	-	-	-	-	0.0%	-	-	-	-
883331 - IT Infrastructure	(2,371,100)	(1,185,500)	(1,400,000)	971,100	-41.0%	(357,000)	(364,200)	(371,500)	(379,000)
883341 - IT Business Productivity Systems	-	-	-	-	0.0%	-	-	-	-
883351 - IT Enterprise Asset Management Systems	(1,205,800)	(768,000)	(620,000)	585,800	-48.6%	-	-	-	-
883361 - IT Security & Risk	(31,200)	(15,600)	-	31,200	-100.0%	-	-	-	-
886401 - Systems Analytics	(89,900)	(60,000)	-	89,900	-100.0%	-	-	-	-
<b>Administrative &amp; Other Services</b>	(288,900)	(70,300)	(268,400)	20,500	-7.1%	(273,700)	(279,200)	(284,800)	(290,400)
883101 - General Counsel	-	-	-	-	0.0%	-	-	-	-
883201 - Organizational Development	-	-	-	-	0.0%	-	-	-	-
884131 - Treasury	(250,000)	(50,800)	(250,000)	-	0.0%	(255,000)	(260,100)	(265,300)	(270,600)
884141 - Public Finance	(38,900)	(19,500)	(18,400)	20,500	-52.7%	(18,700)	(19,100)	(19,500)	(19,800)
<b>Grand Total</b>	<b>\$ (5,089,400)</b>	<b>\$ (2,645,500)</b>	<b>\$ (3,412,900)</b>	<b>\$ 1,676,500</b>	<b>-32.9%</b>	<b>\$ (1,777,700)</b>	<b>\$ (1,813,300)</b>	<b>\$ (1,849,700)</b>	<b>\$ (1,886,700)</b>

### Five Year Financial Plan by Area - Shared Services - GLWA as Subscriber

Cost Center & Description	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Centralized Services</b>	<b>\$ 5,594,000</b>	<b>\$ 2,797,000</b>	<b>\$ 3,583,400</b>	<b>\$ (2,010,600)</b>	<b>-35.9%</b>	<b>\$ 3,655,100</b>	<b>\$ 3,018,100</b>	<b>\$ 3,078,400</b>	<b>\$ 3,140,000</b>
882421 - Facility Operations	2,300,000	1,150,000	2,346,000	46,000	2.0%	2,392,900	2,440,800	2,489,600	2,539,400
882422 - Fleet Operations	1,590,000	795,000	-	(1,590,000)	-100.0%	-	-	-	-
882431 - Field Service Operations	200,000	100,000	204,000	4,000	2.0%	208,000	212,200	216,400	220,800
883331 - IT Infrastructure	1,010,000	505,000	153,000	(857,000)	-84.9%	156,100	159,200	162,400	165,600
883351 - IT Enterprise Asset Management Systems	494,000	247,000	880,400	386,400	78.2%	898,100	205,900	210,000	214,200
<b>Grand Total</b>	<b>\$ 5,594,000</b>	<b>\$ 2,797,000</b>	<b>\$ 3,583,400</b>	<b>\$ (2,010,600)</b>	<b>-35.9%</b>	<b>\$ 3,655,100</b>	<b>\$ 3,018,100</b>	<b>\$ 3,078,400</b>	<b>\$ 3,140,000</b>

*Five Year Financial Plan by Shared Services Number - GLWA as Provider & Subscriber*

Both activities by the GLWA as service “provider” and services received by the GLWA as the service “subscriber” are shown in the table below.

Shared Services Number and Description	Cost Center - Description	FY 2020 Amended Budget	FY 2020 Activity as of 12.31.2019	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
DoIT-001 Financial Information System	883331 - IT Infrastructure	150,000	75,000	153,000	156,100	159,200	162,400	165,600
DoIT-002 Radios	883351 - IT Enterprise Asset Management Systems	150,000	75,000	153,000	156,100	159,200	162,400	165,600
DoIT-003 Customer Service Technology Suite	883351 - IT Enterprise Asset Management Systems	44,000	22,000	44,900	45,800	46,700	47,600	48,600
Fuel	882422 - Fleet Operations	90,000	45,000	-	-	-	-	-
ITS-001 Retail AMR	883341 - IT Business Productivity Systems	-	-	-	-	-	-	-
ITS-002 Customer Service Tech Suite	886401 - Systems Analytics	-	-	-	-	-	-	-
	883321 - IT Service Desk	-	-	-	-	-	-	-
	883351 - IT Enterprise Asset Management Systems	-	-	-	-	-	-	-
	883351 - IT Enterprise Asset Management Systems	-	-	-	-	-	-	-
ITS-003 See-Click-Fix	883351 - IT Enterprise Asset Management Systems	-	-	-	-	-	-	-
ITS-004 WAM	883351 - IT Enterprise Asset Management Systems	(1,021,400)	(667,300)	(500,000)	-	-	-	-
ITS-005 Mobile Work Force	886401 - Systems Analytics	(89,900)	(60,000)	-	-	-	-	-
ITS-006 ESRI - Geographic Information System	883341 - IT Business Productivity Systems	-	-	-	-	-	-	-
	883351 - IT Enterprise Asset Management Systems	-	-	-	-	-	-	-
ITS-007 DADS	883351 - IT Enterprise Asset Management Systems	-	-	-	-	-	-	-
ITS-008 TIBCO	883351 - IT Enterprise Asset Management Systems	(184,400)	(100,700)	(120,000)	-	-	-	-
ITS-009 IT Infrastructure	883331 - IT Infrastructure	(2,371,100)	(1,185,500)	(1,400,000)	(357,000)	(364,200)	(371,500)	(379,000)
	883361 - IT Security & Risk	(31,200)	(15,600)	-	-	-	-	-
LS-001-A Litigation and Joint Defense (GLWA Provider)	883101 - General Counsel	-	-	-	-	-	-	-
New - DWSD - Bank Fees	884131 - Treasury	(250,000)	(50,800)	(250,000)	(255,000)	(260,100)	(265,300)	(270,600)
New - DWSD - Public Finance	884141 - Public Finance	(38,900)	(19,500)	(18,400)	(18,700)	(19,100)	(19,500)	(19,800)
New - DWSD Staff Training by GLWA	883201 - Organizational Development	-	-	-	-	-	-	-
	883351 - IT Enterprise Asset Management Systems	-	-	-	-	-	-	-
New - WAM (Annual License)	882422 - Fleet Operations	300,000	150,000	682,500	696,200	-	-	-
OPS-001 Fleet	882422 - Fleet Operations	1,500,000	750,000	-	-	-	-	-
OPS-002 MISS DIG	882431 - Field Service Operations	100,000	50,000	102,000	104,000	106,100	108,200	110,400
OPS-003 As Needed Field Services	882431 - Field Service Operations	100,000	50,000	102,000	104,000	106,100	108,200	110,400
OPS-004 Water Quality Sampling, Testing, Reporting	882121 - Water Quality	-	-	-	-	-	-	-
OPS-005 Security and Integrity	881201 - Security and Integrity	(325,000)	(162,500)	(331,500)	(338,100)	(344,800)	(351,800)	(358,900)
OPS-006 Facilities	882421 - Facility Operations	-	-	-	-	-	-	-
OPS-006 Shared Facilities Shared Costs	882421 - Facility Operations	2,300,000	1,150,000	2,346,000	2,392,900	2,440,800	2,489,600	2,539,400
OPS-008 Systems Control Center: Detroit Only Pump Stations/CSO	882301 - Systems Operations Control	(429,200)	(214,600)	(437,800)	(446,600)	(455,500)	(464,600)	(473,800)
	882431 - Field Service Operations	(16,700)	(8,300)	(17,000)	(17,400)	(17,700)	(18,000)	(18,300)
	892222 - Wastewater Process Control	(60,400)	(25,200)	(61,600)	(62,800)	(64,100)	(65,400)	(66,700)
	892270 - Combined Sewer Overflow	(19,000)	(9,400)	(19,400)	(19,700)	(20,100)	(20,500)	(20,900)
	892279 - Belle Isle Combined Sewer Overflow	(74,900)	(37,500)	(76,400)	(77,900)	(79,500)	(81,100)	(82,700)
	892342 - Belle Isle Pumping Station	(55,300)	(27,600)	(56,400)	(57,500)	(58,700)	(59,900)	(61,100)
	892343 - Blue Hill Pumping Station	(74,000)	(37,000)	(75,500)	(77,000)	(78,500)	(80,100)	(81,700)
	892347 - Fischer Pumping Station	(12,000)	(6,000)	(12,200)	(12,500)	(12,700)	(13,000)	(13,300)
	892352 - Woodmere Pumping Station	(36,000)	(18,000)	(36,700)	(37,500)	(38,300)	(39,000)	(39,900)
Oracle Licenses	883331 - IT Infrastructure	860,000	430,000	-	-	-	-	-
<b>Grand Total</b>		<b>\$ 504,600</b>	<b>\$ 151,500</b>	<b>\$ 170,500</b>	<b>\$ 1,877,400</b>	<b>\$ 1,204,800</b>	<b>\$ 1,228,700</b>	<b>\$ 1,253,300</b>

**Utilities**

October 2019 marked the first full year since we implemented Capturis, a multi-site utility information management system. Over the course of the last year we have trained a total of 59 employees on the use of the system to view invoices, run reports, and pull any utility information they may need.

Capturis has allowed us to review our utility bills on a more minute scale for variances in usage and cost. Prior to implementation we were manually tracking usage/cost month over month. Now Capturis automatically marks bills for exception that are outside of a usage/cost parameter that we have set.

When GLWA was created most of our locations that were serviced by DTE were combined into summary accounts, with many locations on the same bill. The major downfall of these summary accounts is that if any subaccount had a billing issue it would hold up the bill from being generated. This resulted in delayed billing for many locations. We have worked with DTE over the past year to break out all 10 of our summary accounts.

The tables below provide an overall look of the utility costs that are included in the details of the budgets by operating area in Section 3 – Operating Financial Plans.

## Biennial Budget Request (tables 1 through 4)

### Table 1 – Electric

FY 2021 indicates an increase of \$854,300. The largest driving factor is the increase in the water pumping station and water plant budgets. We are able to more accurately estimate these amounts due to the breakout of the accounts from the summary format.

Cost Center	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Biosolids Dryer Facility	\$ 1,049,800	\$ 1,100,000	\$ 557,200	\$ 1,065,000	\$ (35,000)	-3%	\$ 1,086,000
Combined Sewer Overflow Facilities	1,000,200	1,072,400	428,100	975,000	(97,400)	-9%	989,000
Industrial Waste Control	43,400	-	-	-	-	n/a	-
Lake Huron Water Plant	6,190,800	5,900,000	3,270,400	6,100,000	200,000	3%	6,100,000
Mckinstry Warehouse	22,100	3,000	2,100	28,000	25,000	833%	28,600
Northeast Water Plant	2,617,600	3,000,000	1,624,400	2,800,000	(200,000)	-7%	2,800,000
Southwest Water Plant	1,261,300	1,026,000	773,800	1,270,000	244,000	24%	1,270,000
Springwells Water Plant	3,171,600	3,015,000	1,480,500	3,100,000	85,000	3%	3,100,000
System Analytics	88,600	80,500	32,600	81,700	1,200	1%	82,000
Systems Operations Control	70,400	51,000	27,300	65,000	14,000	27%	65,000
Wastewater Operations	10,235,600	10,319,000	5,286,900	10,498,000	179,000	2%	10,707,000
Wastewater Operations Pumping (Lift) Stations	2,200,900	2,291,300	1,024,600	2,109,500	(181,800)	-8%	2,107,500
Water Pumping Stations	9,146,600	8,577,500	5,411,900	9,147,800	570,300	7%	9,163,700
Water Works Park	2,003,900	1,950,000	1,074,100	2,000,000	50,000	3%	2,000,000
<b>Grand Total</b>	<b>\$ 39,102,800</b>	<b>\$ 38,385,700</b>	<b>\$ 20,993,900</b>	<b>\$ 39,240,000</b>	<b>\$ 854,300</b>	<b>2%</b>	<b>\$ 39,498,800</b>

### Table 2 – Gas

Natural gas has an increase of \$185,400. The biggest driver is increased incineration at WRRF due to our decline in usage of COF (central offloading facility). We also recently had DTE break out one of our last gas group accounts, allowing us to receive more timely and accurate bills. This has allowed us to get a better gauge of the actual cost at McKinstry warehouse and a few of our CSO locations.

Cost Center	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Biosolids Dryer Facility	\$ 2,186,200	\$ 2,160,000	\$ 990,100	\$ 2,187,000	\$ 27,000	1%	\$ 2,230,000
Combined Sewer Overflow Facilities	210,700	184,700	73,900	210,000	25,300	14%	212,000
Industrial Waste Control	21,900	-	-	-	-	n/a	-
Lake Huron Water Plant	170,800	190,000	36,900	180,000	(10,000)	-5%	180,000
Mckinstry Warehouse	19,500	7,500	2,400	26,500	19,000	253%	27,100
Northeast Water Plant	163,900	135,700	73,400	153,100	17,400	13%	153,100
Southwest Water Plant	146,600	140,000	61,000	140,000	-	0%	140,000
Springwells Water Plant	297,700	239,700	112,000	280,200	40,500	17%	280,300
Systems Operations Control	200	10,100	100	500	(9,600)	-95%	500
Wastewater Operations	3,013,400	2,999,900	1,117,300	3,094,000	94,100	3%	3,155,000
Wastewater Operations Pumping (Lift) Stations	28,200	28,300	9,300	29,000	700	2%	29,000
Water Pumping Stations	78,800	104,700	27,400	78,700	(26,000)	-25%	78,700
Water Works Park	230,200	250,000	93,300	250,000	-	0%	250,000
<b>Grand Total</b>	<b>\$ 6,568,100</b>	<b>\$ 6,450,600</b>	<b>\$ 2,597,100</b>	<b>\$ 6,629,000</b>	<b>\$ 178,400</b>	<b>3%</b>	<b>\$ 6,735,700</b>



**Table 3 – Water**

Water reflects a decrease of \$709,600. This decrease is almost exclusively driven by plumbing repairs at the Chlor/Dechlor facility resulting in a decrease of almost 50% in water consumption at this facility.

Cost Center	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Biosolids Dryer Facility	\$ 178,100	\$ 136,400	\$ 79,200	\$ 179,000	\$ 42,600	31%	\$ 182,000
Combined Sewer Overflow Facilities	374,400	406,500	225,500	370,100	(36,400)	-9%	376,300
Industrial Waste Control	2,100	-	-	-	-	n/a	-
Lake Huron Water Plant	-	5,000	-	1,000	(4,000)	-80%	1,000
Mckinstry Warehouse	400	500	-	6,500	6,000	1200%	6,600
Northeast Water Plant	-	10,000	-	2,000	(8,000)	-80%	2,000
Southwest Water Plant	400	-	300	500	500	n/a	500
Systems Operations Control	500	1,000	200	600	(400)	-40%	600
Wastewater Operations	3,014,900	3,023,800	1,314,200	3,331,000	307,200	10%	3,397,000
Wastewater Operations Pumping (Lift) Stations	59,800	66,300	31,100	56,000	(10,300)	-16%	56,000
Water Pumping Stations	400	8,300	200	1,500	(6,800)	-82%	1,500
Water Works Park	-	-	-	-	-	n/a	-
<b>Grand Total</b>	<b>\$ 3,631,000</b>	<b>\$ 3,657,800</b>	<b>\$ 1,650,700</b>	<b>\$ 3,948,200</b>	<b>\$ 290,400</b>	<b>8%</b>	<b>\$ 4,023,500</b>

**Table 4 – Sewer**

Sewer reflects an increase in cost of \$273,200. The sewer charges represent sewer usage and stormwater drainage charges. The biggest factor to this increase is the increased sewer usage at Southwest plant due to maintenance projects occurring at the plant. We also saw an increase in usage at BDF due the implementation of air scrubbers.

Cost Center	FY 2019 Actual	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested
Biosolids Dryer Facility	\$ 349,700	\$ 250,000	\$ 156,400	\$ 350,000	\$ 100,000	40%	\$ 357,000
Combined Sewer Overflow Facilities	568,700	543,000	410,800	573,500	30,500	6%	583,500
Industrial Waste Control	12,000	-	-	-	-	n/a	-
Lake Huron Water Plant	74,000	70,000	28,500	70,000	-	0%	70,000
Mckinstry Warehouse	19,100	12,200	8,800	33,800	21,600	177%	34,200
Northeast Water Plant	126,000	204,000	63,400	130,000	(74,000)	-36%	130,000
Southwest Water Plant	355,500	225,000	37,300	350,000	125,000	56%	350,000
Systems Operations Control	8,800	16,000	500	9,000	(7,000)	-44%	9,000
Wastewater Operations	478,500	487,200	271,000	494,000	6,800	1%	503,000
Wastewater Operations Pumping (Lift) Stations	8,700	11,200	4,400	10,500	(700)	-6%	10,500
Water Pumping Stations	1,800	8,000	1,200	4,000	(4,000)	-50%	4,000
Water Works Park	92,500	20,000	14,000	95,000	75,000	375%	95,000
<b>Grand Total</b>	<b>\$ 2,095,300</b>	<b>\$ 1,846,600</b>	<b>\$ 996,300</b>	<b>\$ 2,119,800</b>	<b>\$ 273,200</b>	<b>15%</b>	<b>\$ 2,146,200</b>



## 5 Year Financial Plan (tables 5 through 8)

### Table 5 – Electric

The increase in the amount requested for electric through FY 2025 is less than 1% per year, representing the assumed increase in surcharges and electric cost each year from DTE.

Cost Center	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Biosolids Dryer Facility	\$ 1,100,000	\$ 557,200	\$ 1,065,000	\$ (35,000)	-3%	\$ 1,086,000	\$ 1,107,000	\$ 1,129,000	\$ 1,151,000
Combined Sewer Overflow Facilities	1,072,400	428,100	975,000	(97,400)	-9%	989,000	1,004,000	1,020,000	1,036,000
Industrial Waste Control	-	-	-	-	n/a	-	-	-	-
Lake Huron Water Plant	5,900,000	3,270,400	6,100,000	200,000	3%	6,100,000	6,100,000	6,100,000	6,100,000
Mckinstry Warehouse	3,000	2,100	28,000	25,000	833%	28,600	29,100	33,800	34,500
Northeast Water Plant	3,000,000	1,624,400	2,800,000	(200,000)	-7%	2,800,000	2,800,000	2,800,000	2,800,000
Southwest Water Plant	1,026,000	773,800	1,270,000	244,000	24%	1,270,000	1,270,000	1,270,000	1,270,000
Springwells Water Plant	3,015,000	1,480,500	3,100,000	85,000	3%	3,100,000	3,100,000	3,100,000	3,100,000
System Analytics	80,500	32,600	81,700	1,200	1%	82,000	82,200	82,400	83,000
Systems Operations Control	51,000	27,300	65,000	14,000	27%	65,000	65,000	65,000	65,000
Wastewater Operations	10,319,000	5,286,900	10,498,000	179,000	2%	10,707,000	10,921,000	11,139,000	11,361,000
Wastewater Operations Pumping (Lift) Stations	2,291,300	1,024,600	2,109,500	(181,800)	-8%	2,107,500	2,105,400	2,103,300	2,103,300
Water Pumping Stations	8,577,500	5,411,900	9,147,800	570,300	7%	9,163,700	9,179,600	9,179,600	9,179,600
Water Works Park	1,950,000	1,074,100	2,000,000	50,000	3%	2,000,000	2,000,000	2,000,000	2,000,000
<b>Grand Total</b>	<b>\$ 38,385,700</b>	<b>\$ 20,993,900</b>	<b>\$ 39,240,000</b>	<b>\$ 854,300</b>	<b>2%</b>	<b>\$ 39,498,800</b>	<b>\$ 39,763,300</b>	<b>\$ 40,022,100</b>	<b>\$ 40,283,400</b>

### Table 6 – Gas

The increase in the amount requested for gas each year is approximately 1.6%. This is based on the assumed increase in natural gas cost from the State of Michigan & transportation cost from DTE.

Cost Center	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Biosolids Dryer Facility	\$ 2,160,000	\$ 990,100	\$ 2,187,000	\$ 27,000	1%	\$ 2,230,000	\$ 2,274,000	\$ 2,319,000	\$ 2,365,000
Combined Sewer Overflow Facilities	184,700	73,900	210,000	25,300	14%	212,000	214,000	216,000	218,000
Industrial Waste Control	-	-	-	-	n/a	-	-	-	-
Lake Huron Water Plant	190,000	36,900	180,000	(10,000)	-5%	180,000	180,000	180,000	180,000
Mckinstry Warehouse	7,500	2,400	26,500	19,000	253%	27,100	27,600	32,300	32,900
Northeast Water Plant	135,700	73,400	153,100	17,400	13%	153,100	153,100	153,100	153,100
Southwest Water Plant	140,000	61,000	140,000	-	0%	140,000	140,000	140,000	140,000
Springwells Water Plant	239,700	112,000	280,200	40,500	17%	280,300	280,400	280,400	280,400
Systems Operations Control	10,100	100	500	(9,600)	-95%	500	500	500	500
Wastewater Operations	2,999,900	1,117,300	3,094,000	94,100	3%	3,155,000	3,218,000	3,282,000	3,347,000
Wastewater Operations Pumping (Lift) Stations	28,300	9,300	29,000	700	2%	29,000	29,000	29,000	29,000
Water Pumping Stations	104,700	27,400	78,700	(26,000)	-25%	78,700	78,700	78,700	78,700
Water Works Park	250,000	93,300	250,000	-	0%	250,000	250,000	250,000	250,000
<b>Grand Total</b>	<b>\$ 6,450,600</b>	<b>\$ 2,597,100</b>	<b>\$ 6,629,000</b>	<b>\$ 178,400</b>	<b>3%</b>	<b>\$ 6,735,700</b>	<b>\$ 6,845,300</b>	<b>\$ 6,961,000</b>	<b>\$ 7,074,600</b>

**Table 7 – Water**

We have budgeted for an approximate 2% increase for water each year through FY 2025 to compensate for the increase in water charges from DWSD and other municipalities.

Cost Center	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Biosolids Dryer Facility	\$ 136,400	\$ 79,200	\$ 179,000	\$ 42,600	31%	\$ 182,000	\$ 185,000	\$ 188,000	\$ 191,000
Combined Sewer Overflow Facilities	406,500	225,500	370,100	(36,400)	-9%	376,300	382,400	388,600	394,800
Industrial Waste Control	-	-	-	-	n/a	-	-	-	-
Lake Huron Water Plant	5,000	-	1,000	(4,000)	-80%	1,000	1,000	1,000	1,000
Mckinstry Warehouse	500	-	6,500	6,000	1200%	6,600	6,800	11,000	11,200
Northeast Water Plant	10,000	-	2,000	(8,000)	-80%	2,000	2,000	2,000	2,000
Southwest Water Plant	-	300	500	500	n/a	500	500	500	500
Systems Operations Control	1,000	200	600	(400)	-40%	600	600	600	600
Wastewater Operations	3,023,800	1,314,200	3,331,000	307,200	10%	3,397,000	3,464,000	3,533,000	3,603,000
Wastewater Operations Pumping (Lift) Stations	66,300	31,100	56,000	(10,300)	-16%	56,000	56,000	56,000	56,000
Water Pumping Stations	8,300	200	1,500	(6,800)	-82%	1,500	1,500	1,500	1,500
Water Works Park	-	-	-	-	n/a	-	-	-	-
<b>Grand Total</b>	<b>\$ 3,657,800</b>	<b>\$ 1,650,700</b>	<b>\$ 3,948,200</b>	<b>\$ 290,400</b>	<b>8%</b>	<b>\$ 4,023,500</b>	<b>\$ 4,099,800</b>	<b>\$ 4,182,200</b>	<b>\$ 4,261,600</b>

**Table 8 – Sewer**

The budget requests for sewer through FY 2025 increase approximately 1.3% per year to keep up with increasing sewer and stormwater charges from DWSD and other communities.

Cost Center	FY 2020 Amended Budget	FY 2020 Activity thru 12.31.2019	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Biosolids Dryer Facility	\$ 250,000	\$ 156,400	\$ 350,000	\$ 100,000	40%	\$ 357,000	\$ 364,000	\$ 371,000	\$ 378,000
Combined Sewer Overflow Facilities	543,000	410,800	573,500	30,500	6%	583,500	593,500	603,500	613,500
Industrial Waste Control	-	-	-	-	n/a	-	-	-	-
Lake Huron Water Plant	70,000	28,500	70,000	-	0%	70,000	70,000	70,000	70,000
Mckinstry Warehouse	12,200	8,800	33,800	21,600	177%	34,200	34,800	39,700	40,400
Northeast Water Plant	204,000	63,400	130,000	(74,000)	-36%	130,000	130,000	130,000	130,000
Southwest Water Plant	225,000	37,300	350,000	125,000	56%	350,000	350,000	350,000	350,000
Systems Operations Control	16,000	500	9,000	(7,000)	-44%	9,000	9,000	9,000	9,000
Wastewater Operations	487,200	271,000	494,000	6,800	1%	503,000	513,000	523,000	533,000
Wastewater Operations Pumping (Lift) Stations	11,200	4,400	10,500	(700)	-6%	10,500	10,500	10,500	10,500
Water Pumping Stations	8,000	1,200	4,000	(4,000)	-50%	4,000	4,000	4,000	4,000
Water Works Park	20,000	14,000	95,000	75,000	375%	95,000	95,000	95,000	95,000
<b>Grand Total</b>	<b>\$ 1,846,600</b>	<b>\$ 996,300</b>	<b>\$ 2,119,800</b>	<b>\$ 273,200</b>	<b>15%</b>	<b>\$ 2,146,200</b>	<b>\$ 2,173,800</b>	<b>\$ 2,205,700</b>	<b>\$ 2,233,400</b>

**Net Position**

The Authority's net position is the difference between the Authority's assets, deferred outflows of resources, liabilities, and deferred inflows of resources. A net deficit occurs when the liabilities and deferred inflows exceed assets and deferred outflows. Deferred inflows and deferred outflows generally relate to financing activity and the Authority's share of the GRS pension obligation.

In order to improve the Authority's net position, the GLWA continues to optimize its operations, focus on financial planning with a biennial budget, annually update the five-year capital and financial plan, semi-annual updates of the ten year financial and applying core principles in asset management.

The actual net position and projected net position for the Water Fund and Sewage Disposal Fund for the fiscal years ending June 30<sup>th</sup> is presented on the next page. These are the two major funds of GLWA, each of which includes the operations fund, improvement & extension fund, and construction fund for the water and sewage disposal systems.

	Net Position								
	Actual			Projected					
	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Water Fund</b>									
Operating revenues	\$ 351.7	\$ 338.3	\$ 331.6	\$ 330.6	\$ 336.8	\$ 348.1	\$ 358.6	\$ 369.4	\$ 380.6
Operating expenses	(101.7)	(108.5)	(119.8)	(131.5)	(137.1)	(139.6)	(141.0)	(143.3)	(146.4)
Depreciation & amortization	(144.1)	(146.1)	(144.1)	(131.9)	(125.7)	(127.8)	(130.7)	(129.2)	(90.5)
Operating income	105.9	83.7	67.6	67.2	74.0	80.6	86.9	96.9	143.6
Nonoperating expenses	(105.5)	(107.7)	(84.1)	(95.6)	(94.2)	(91.1)	(93.1)	(96.3)	(96.2)
Special item	(32.8)	-	-	-	-	-	-	-	-
Change in net position	(32.4)	(24.0)	(16.4)	(28.4)	(20.2)	(10.5)	(6.2)	0.6	47.4
Beginning net position	(4.1)	(36.5)	(60.4)	(76.9)	(105.3)	(125.5)	(136.0)	(142.2)	(141.6)
Ending net position	\$ (36.5)	\$ (60.4)	\$ (76.9)	\$ (105.3)	\$ (125.5)	\$ (136.0)	\$ (142.2)	\$ (141.6)	\$ (94.1)
<b>Sewage Disposal Fund</b>									
Operating revenues	\$ 505.8	\$ 473.6	\$ 469.5	\$ 471.9	\$ 481.2	\$ 496.0	\$ 511.0	\$ 526.7	\$ 542.8
Operating expenses	(151.3)	(176.4)	(174.0)	(187.1)	(184.9)	(188.9)	(194.0)	(198.5)	(202.0)
Depreciation & amortization	(185.6)	(187.3)	(168.5)	(151.4)	(145.8)	(146.0)	(144.9)	(144.2)	(127.0)
Operating income	168.9	110.0	126.9	133.4	150.4	161.1	172.1	184.0	213.8
Nonoperating expenses	(163.5)	(161.9)	(132.5)	(151.7)	(148.6)	(141.4)	(139.6)	(139.3)	(136.1)
Capital contribution	0.3	-	-	-	-	-	-	-	-
Special item	(61.5)	-	-	-	-	-	-	-	-
Change in net position	(55.8)	(52.0)	(5.6)	(18.3)	1.8	19.7	32.5	44.7	77.7
Beginning net position	(10.6)	(66.4)	(118.3)	(123.9)	(142.2)	(140.4)	(120.7)	(88.2)	(43.5)
Ending net position	\$ (66.4)	\$ (118.3)	\$ (123.9)	\$ (142.2)	\$ (140.4)	\$ (120.7)	\$ (88.2)	\$ (43.5)	\$ 34.1
<b>Combined</b>									
Operating revenues	\$ 857.6	\$ 811.9	\$ 801.1	\$ 802.5	\$ 818.0	\$ 844.1	\$ 869.6	\$ 896.1	\$ 923.4
Operating expenses	(253.0)	(284.9)	(293.9)	(318.5)	(322.1)	(328.6)	(335.0)	(341.8)	(348.5)
Depreciation & amortization	(329.8)	(333.3)	(312.7)	(283.3)	(271.5)	(273.8)	(275.6)	(273.4)	(217.5)
Operating income	274.7	193.7	194.5	200.6	224.4	241.7	259.0	280.9	357.4
Nonoperating expenses	(268.9)	(269.6)	(216.6)	(247.3)	(242.8)	(232.5)	(232.7)	(235.6)	(232.3)
Capital contribution	0.3	-	-	-	-	-	-	-	-
Special item	(94.3)	-	-	-	-	-	-	-	-
Change in net position	(88.2)	(75.9)	(22.1)	(46.7)	(18.4)	9.2	26.3	45.3	125.1
Beginning net position	(14.7)	(102.8)	(178.8)	(200.8)	(247.5)	(265.9)	(256.7)	(230.4)	(185.1)
Ending net position	\$ (102.8)	\$ (178.8)	\$ (200.8)	\$ (247.5)	\$ (265.9)	\$ (256.7)	\$ (230.4)	\$ (185.1)	\$ (60.0)

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## Section 5

# Member Partner Charges & Revenues

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## **Water System Revenue Charges**

The Water System Revenue Charges are based on industry practices and member partner contract terms. Inputs to the charge development process include meter data, usage patterns, budgetary decisions, capital needs, debt obligations, cost allocation methodologies, and related documents. GLWA's charges are developed by a financial consultant, The Foster Group, LLC in conjunction with a robust member partner engagement process. This process included four Charges Roll-Out meetings and several Water Charges Work Group meetings held between October 17, 2019 and January 23, 2020. During this time, the proposed units of service, proposed budget, results of the annual cost of service study, and recommended service charges were the topic of discussion with member partners which resulted in a recommendation to the GLWA Board for the FY 2021 Schedule of Charges.

### **The Foster Group, LLC Report – Water System**

The basis for the proposed water system service charges for FY 2021 are reflected in the service charge study prepared for GLWA, as prepared by The Foster Group and as set forth in a memorandum dated January 20, 2020. The cost of service study in the memorandum report only addresses the wholesale service costs of service (revenue requirements) that are GLWA's responsibility. Retail revenue requirement elements solely attributable to the City of Detroit local system are allocated separately by GLWA through the Indirect Retail and Direct Retail revenue requirements to the City of Detroit. The results of the study were presented to wholesale member partners via the member partner outreach program at key milestone dates throughout the study period, and member partners were formally notified of their proposed service charges on January 24, 2020. The memorandum report is available on the GLWA website at:

<https://www.glwater.org/wp-content/uploads/2020/05/Preliminary-FY-2021-Water-and-Sewer-Charges-Recommendations-012020.pdf>.

The proposed FY 2021 water service charges reflected an “across the board” increase of 3.5% to charges. There are a few special considerations that were made to execute this “across the board increase”. One member partner updated their Exhibit B Demands. This would reduce their charges by 1% and their proposed FY 2021 charges reflected that. The 3.5% adjustment was applied to the full gross wholesale revenue requirement for those member partners that have special contract arrangements.

After the public hearing on the proposed water service charges on March 11, 2020 the Board approved the proposed charges with a 0.5% reduction which required a decrease to be made to the original proposed budget of \$1.7 million. The final approved charges are set forth below:

Great Lakes Water Authority  
Approved FY 2021 Water Supply System Allocated Revenue Requirements and Service Charges

Line No.	Customer	Fixed Monthly Charge (a) \$/mo	Commodity Charge (a) \$/Mcf	Annual Revenue Req'ts \$
1	Allen Park	122,400	7.80	2,448,300
2	Almont Village	12,200	10.52	244,200
3	Ash Township	42,400	8.28	848,300
4	Belleville	16,000	9.77	320,000
5	Berlin Township	37,400	11.41	748,800
6	Brownstown Township	187,400	10.82	3,748,700
7	Bruce Twp	15,900	68.40	318,700
8	Burtchville Twp	16,800	18.67	336,000
9	Canton Township	527,600	12.17	10,552,100
10	Center Line	23,900	6.23	478,600
11	Chesterfield Township	217,600	10.33	4,352,200
12	Clinton Township	390,100	7.79	7,801,400
13	Commerce Township	183,400	14.50	3,668,400
14	Dearborn	539,900	7.24	10,797,800
15	Dearborn Heights	189,200	7.70	3,783,300
16	Eastpointe	80,600	6.15	1,611,700
17	Ecorse	78,800	4.31	1,575,700
18	Farmington	52,300	9.24	1,046,100
19	Farmington Hills	460,900	10.20	9,218,900
20	Ferndale	52,300	6.19	1,045,000
21	Flat Rock	70,500	9.18	1,410,400
22	Flint (b)	572,300	8.76	11,445,300
23	Fraser	63,200	8.51	1,263,000
24	Garden City	87,900	8.30	1,757,500
25	Gibraltar	17,300	8.33	345,800
26	Grosse Ile Township	57,300	11.65	1,146,700
27	Grosse Pt. Park	76,700	11.04	1,533,200
28	Grosse Pt. Shores	33,900	13.60	677,400
29	Grosse Pt. Woods	73,700	9.13	1,474,400
30	Hamtramck	40,900	5.39	817,200
31	Harper Woods	42,500	6.76	850,800
32	Harrison Township	79,100	6.82	1,582,400
33	Hazel Park	38,200	5.98	764,200
34	Highland Park	60,300	4.61	1,206,300
35	Huron Township	76,000	10.09	1,520,200
36	Imlay City	74,600	13.52	1,492,800
37	Imlay Twp	800	39.44	16,700
38	Inkster	63,800	5.45	1,276,400
39	Keego Harbor	15,500	12.35	309,500
40	Lapeer	80,300	11.84	1,605,400
41	Lenox Township	15,300	8.21	306,000
42	Lincoln Park	115,900	6.12	2,317,900
43	Livonia	594,800	9.92	11,896,300
44	Macomb Township	653,000	16.03	13,059,300
45	Madison Heights	99,400	6.82	1,987,500
46	Mayfield Twp	2,500	23.10	49,400
47	Melvindale	33,600	6.23	671,000
48	New Haven, Village of	20,500	6.74	409,800
49	N O C W A	1,143,600	10.22	22,871,800
50	Northville	46,100	11.72	922,300
51	Northville Township	290,100	16.95	5,802,200
52	Novi	468,800	12.69	9,375,800
53	Oak Park	71,700	6.03	1,433,600
54	Oakland Co. Drain Comm.	4,300	3.29	86,800
55	Plymouth	55,500	10.24	1,110,300
56	Plymouth Township	229,900	11.31	4,597,800
57	Redford Township	165,300	8.04	3,305,200
58	River Rouge	34,800	7.54	696,700
59	Riverview	45,000	7.82	899,100
60	Rockwood	14,400	11.56	287,200

Great Lakes Water Authority  
Approved FY 2021 Water Supply System Allocated Revenue Requirements and Service Charges

Line No.	Customer	Fixed Monthly Charge (a) \$/mo	Commodity Charge (a) \$/Mcf	Annual Revenue Req'ts \$
61	Romeo	13,000	18.18	259,600
62	Romulus	216,400	8.23	4,328,700
63	Roseville	138,700	5.91	2,774,800
64	Royal Oak Township	10,500	7.15	210,400
65	S O C W A	1,192,900	7.58	23,857,100
66	Shelby Township	724,600	15.15	14,491,100
67	South Rockwood	6,000	9.92	119,600
68	Southgate	114,600	7.90	2,291,500
69	St. Clair County-Greenwood Township	24,000	12.83	480,400
70	St. Clair Shores	158,300	6.68	3,165,400
71	Sterling Heights	785,000	10.99	15,700,400
72	Sumpter Township	34,500	9.64	689,600
73	Sylvan Lake	12,100	15.11	241,900
74	Taylor	241,400	7.24	4,827,900
75	Trenton	86,700	8.10	1,734,100
76	Troy	700,800	12.14	14,015,000
77	Utica	29,800	9.34	596,800
78	Van Buren Township	177,200	11.14	3,543,300
79	Walled Lake	41,700	10.64	833,500
80	Warren	530,000	6.89	10,599,900
81	Washington Township	116,900	12.49	2,337,200
82	Wayne	159,500	13.38	3,190,700
83	West Bloomfield Township	538,000	16.29	10,760,600
84	Westland	321,700	7.80	6,433,100
85	Wixom	127,600	13.73	2,551,500
86	Woodhaven	86,700	11.91	1,733,500
87	Ypsilanti Comm Util Auth	540,900	8.76	10,817,300
88	Total Wholesale Contract Customers			322,110,700
89	Adjustment to Flint Revenue Requirement for KWA Debt Service			(6,652,200)
90	Adjustment for Highland Park Bad Debt			(1,206,300)
91	Net Requirement from Wholesale Charges (agrees with GLWA Budget "Schedule 3A")			314,252,200
<b>Detroit Customer Class - \$</b>				
92	Wholesale Revenue Requirement (c)			43,255,400
93	less: Ownership Benefit per Lease			(20,700,000)
94	Net Wholesale Revenue Requirement			22,555,400
95	Indirect Retail Revenue Requirements (d)			46,830,400
96	less: Use of Lease Payment for Debt Service			(8,278,300)
97	Net Indirect Retail Revenue Requirements (d)			38,552,100
98	Subtotal Subject to GLWA Board Approval (94) + (97)			61,107,500
99	Direct Retail Revenue Requirements (e)			40,105,900
100	Total Local System Revenue Requirement (97) + (99)			78,658,000
101	Net Requirement from Detroit Customer Class (agrees with GLWA Budget "Schedule 3A")			101,213,400

(a) Reflects charges approved March 11, 2020.

(b) Net fixed monthly charge will include \$554,400 monthly credits for KWA debt service.

(c) Wholesale revenue requirements for the Detroit Customer Class.

(d) Local System revenue requirements related to Master Bond Ordinance (local debt service, etc.)

(e) Local System operating expenses (net of shared services reimbursement) and I&E deposit. Not Subject to GLWA Board approval.

Historical and projected produced and billed water volumes are presented in the table below.

**Produced and Billed Water Volumes**

Fiscal Year	Estimated Total Water Produced (Mcf) [1]	Reported Water Sales			Estimated Non-Revenue Water (Mcf)	Estimated Non-Revenue % of Production [3]
		Wholesale Customer Billed (Mcf)	Local System Billed (Mcf)	Total Water Billed (Mcf) [2]		
Actual 2017	23,915,600	14,824,000	2,912,030	17,736,030	6,179,570	25.8%
Actual 2018	23,228,600	14,391,768	2,876,255	17,268,023	5,960,577	25.7%
Actual 2019	20,968,100	13,708,571	2,806,192	16,514,763	4,453,337	21.2%
Estimated 2020	23,000,000	13,552,900	4,339,100 [4]	17,892,000	5,108,000	22.2%
Projected 2021	23,000,000	13,552,900	4,339,100 [4]	17,892,000	5,108,000	22.2%
Projected 2022	23,000,000	13,552,900	4,339,100 [4]	17,892,000	5,108,000	22.2%

[1] Represents, in part, estimated volumes based on pump curves and engineering analysis. GLWA engineering studies in 2017 concluded that the total water production values for calendar year 2016 were over-reported by 5.8%.

[2] Represents metered wholesale amounts for all customers other than Detroit, Dearborn, and Highland Park. Water sales to those customers reflect, in part, estimated retail water sales during this period. GLWA is modifying this approach, which will result in larger reported water sales figures in future years.

[3] As noted in [1] and [2], these values are likely overestimated. GLWA expects flow measuring methods to result in lower values in future years.

[4] Reflects retail sales plus estimated distribution system non-revenue water from engineering studies.

## **Sewer System Revenue Charges**

The Sewer System Revenue Charges are based on industry practices and member partner contract terms. GLWA's charges are developed by a financial consultant, The Foster Group, LLC in conjunction with a robust member partner engagement process which included four Charges Roll-Out meetings and several Sewer Charges Work Group meetings held between October 17, 2019 to January 23, 2020. During this time, the proposed Sewer Shares update, proposed budget, results of the annual cost of service study, and recommended service charges were presented to the member partners in order to get feed-back and to answer questions.

### **The Foster Group, LLC Report – Sewer System**

The basis for the proposed sewer system service charges for FY 2021 are reflected in the service charge study prepared for GLWA, as prepared by The Foster Group and as set forth in a memorandum dated January 20, 2020. The study in the memorandum report only addresses the wholesale service costs of service (revenue requirements) that are GLWA's responsibility. Retail revenue requirement elements solely attributable to the City of Detroit local system are allocated separately by GLWA through the Indirect Retail and Direct Retail revenue requirements to the City of Detroit. The results of the study were presented to wholesale member partners via the member partner outreach program at key milestone dates throughout the study period, and member partners were formally notified of their proposed service charges on January 24, 2020. The memorandum report is available on the GLWA website at:

<https://www.glwater.org/wp-content/uploads/2020/05/Preliminary-FY-2021-Water-and-Sewer-Charges-Recommendations-012020.pdf>

The proposed FY 2021 sewer service charges, industrial waste control charges and industrial surcharges reflected an “across the board” increase of 3.5% to charges. In order to execute the “across the board” increase, it was necessary to separate the “bad debt recovery” element in the suburban wholesale service charges from the amounts related to the budgeted wholesale revenue requirements. There are a few other special considerations that were made to execute this “across the board” increase. The 3.5% adjustment was applied to the full gross wholesale revenue requirement for Detroit. The 3.5% adjustment was applied to the “common to all” wholesale revenue requirement for the Oakland Macomb Interceptor District (OMID). OMID's specific revenue requirement is set by contract.

After the public hearing on the proposed water service charges on March 11, 2020 the Board approved the proposed charges with a 1.25% reduction which required a decrease to be made to the original proposed budget by \$6.1 million. The final approved charges are set forth below:



Great Lakes Water Authority  
Approved FY 2021 Sewage Disposal System Allocated Revenue Requirements and Service Charges

	Fixed Monthly Charge \$/mo	Annual Revenue Requirement \$
<u>Suburban Wholesale</u>		
1 OMID	6,400,000	76,799,400
2 Rouge Valley	4,575,900	54,910,700
3 Oakland GWK	3,821,000	45,851,800
4 Evergreen Farmington	2,944,100	35,329,000
5 SE Macomb San Dist	2,097,000	25,164,500
6 Dearborn	1,646,200	19,754,700
7 Grosse Pointe Farms	232,300	2,787,700
8 Grosse Pointe Park	153,000	1,835,600
9 Melvindale	129,600	1,554,600
10 Farmington	97,200	1,166,900
11 Center Line	87,300	1,047,900
12 Allen Park	72,200	866,300
13 Highland Park	478,900	5,747,300
14 Hamtramck	337,000	4,044,200
15 Grosse Pointe	75,400	904,300
16 Harper Woods	18,500	222,100
17 Redford Township	22,300	267,500
18 Wayne County #3	4,300	51,500
19 <b>Subtotal "Regional Wholesale Revenues from Charges"</b>		278,306,000
20 Industrial Specific Revenues		14,038,200
21 <b>Subtotal "Regional Wholesale Revenues from Charges"</b>		292,344,200
22 less: Highland Park Bad Debt		(1,294,200)
23 <b>Total "Regional Wholesale Revenues" (a)</b>		291,050,000
<i>* Wholesale charges will be effective July 1, 2020</i>		
<b>Detroit Customer Class - \$</b>		
24 <u>Wholesale</u> Revenue Requirement (c)		195,628,100
25 less: Ownership Benefit per Lease		(5,516,000)
26 <u>Net Wholesale</u> Revenue Requirement		190,112,100
27 <u>Indirect Retail</u> Revenue Requirements (d)		36,245,300
28 less: Use of Lease Payment for Debt Service		(3,257,200)
29 <u>Net Indirect Retail</u> Revenue Requirements (d)		32,988,100
30 Subtotal Subject to GLWA Board Approval (26) + (29)		223,100,200
31 <u>Direct Retail</u> Revenue Requirements (e)		72,771,700
32 <b>Total Local System Revenue Requirement (29) + (31)</b>		105,759,800
33 <b>Net Requirement from Detroit Customer Class (a)</b>		295,871,900

(a) Agrees with GLWA Budget "Schedule 3A"

(b) Reserved

(c) Wholesale revenue requirements for the Detroit Customer Class.

(d) Local System revenue requirements related to Master Bond Ordinance (local debt service, etc.)

(e) Local System operating expenses (net of shared services reimbursement) and I&E deposit. Not Subject to GLWA Board approval.

Due to terms of the amended wastewater services contract with OMID, OMID's total annual revenue requirement includes components for wholesale services and OMID specific charges. For FY 2021 the total revenue requirement for OMID is \$76,799,400, of which, \$68,717,500 is OMID's wholesale budget allocation, \$1,371,900 is for specific OMID O&M charges, \$750,000 for estimated pass thru utility charges (this will be billed based on actual charges) and \$5,960,000 capital contribution applied to revenue requirement.

Great Lakes Water Authority Approved FY 2021 Industrial Specific Retail Sewer Charges			
Industrial Waste Control Charges		Pollutant Surcharges	
Meter Size - inches	Charge \$/mo	Pollutant	Charge \$/lb
5/8	3.45	BIOCHEMICAL OXYGEN DEMAND (BOD) for concentrations > 275 mg/l	0.502
3/4	5.18		
1	8.63		
1-1/2	18.98		
2	27.60	TOTAL SUSPENDED SOLIDS (TSS) for concentrations > 350 mg/l	0.51
3	50.03		
4	69.00		
6	103.50		
8	172.50	PHOSPHORUS (P) for concentrations > 12 mg/l	7.519
10	241.50		
12	276.00		
14	345.00		
16	414.00	FATS, OIL AND GREASE (FOG) for concentrations > 100 mg/l	0.484
18	483.00		
20	552.00		
24	621.00		
30	690.00	SEPTAGE DISPOSAL FEE Per 500 gallons of disposal	48.00
36	759.00		
48	828.00		



Great Lakes Water Authority FY 2021 Industrial Specific Retail Sewer Charges	
Industrial Waste Control Charges- Administration Only	
<u>Meter Size - inches</u>	<u>Charge</u> \$/mo
5/8	0.86
3/4	1.30
1	2.16
1-1/2	4.75
2	6.90
3	12.51
4	17.25
6	25.88
8	43.13
10	60.38
12	69.00
14	86.25
16	103.50
18	120.75
20	138.00
24	155.25
30	172.50
36	189.75
48	207.00

On October 8, 2019 the Great Lakes Water Authority Board of Directors approved an Industrial Pretreatment Program (IPP) Agreement ('Agreement') between GLWA and the City of Pontiac Wastewater Treatment Facility Drainage District (COPWTFDD) and the Clinton River Water Resource Recovery Facility Drainage District (CRWRRFDD). This Agreement addresses overlapping service areas that are governed by two IPPs with differing requirements and IPP rules. The Industrial Waste Control (IWC) charges were analyzed to determine the administrative component (for reporting and oversight functions) and field work component (mainly sampling and testing). The table above reflects the GLWA administrative charges for the IWC member partners that fall within the geographical area defined in the Agreement. The IWC charges on the previous page include both the administrative and field work components that are charged to all other IWC member partners.

Historical wastewater volumes are presented in the table below. Projected volumes are not presented as sewer wholesale revenues are recovered through a 100% fixed monthly charge based on allocated sewer shares and do not include a usage component. The sewer shares allocation is updated every 3 to 5 years based on historical wastewater flow data. The current sewer shares allocation formula was based on historical flows for fiscal years 2013 through 2016 and has been used in allocating charges for fiscal years 2018 through 2021. It is anticipated that the sewer shares allocation will be recalculated for fiscal year 2022 charges.

**Treated and Billed Wastewater Volumes**

Fiscal Year	Total Wastewater Treated (mg)	Customer Wastewater Volume (mg)		
		[1]	[2]	Total
		Wholesale Customers	Local System	
Actual 2017	254,400	105,500	19,200	124,700
Actual 2018	235,600	119,400	19,500	138,900
Actual 2019	249,500	124,800	21,200	146,000

[1] Primarily metered wastewater volumes, but also includes water sales volumes for some customers whose wastewater is not metered. A fixed charge billing methodology was implemented in 2015. Volumes reflect measured and monitored wastewater flow.

[2] Reported water sales to retail customers.

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# Section 6 Capital Investment

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The Great Lakes Water Authority assures effective operational flexibility, while controlling spending and optimizing the cost of capital. This is accomplished by utilizing five categories in GLWA's Capital Financial Plan for funding both "Capital Outlay" and the "Capital Improvement Plan" (CIP) which are listed below.

Category	Capital Outlay - Over \$5,000 (O&M - Not Capitalized)	Capital Outlay - Direct Purchase Over \$5,000 (I&E Funded)	Capital Outlay - Projects and Programs (I&E Funded)	Capital Improvement Plan (I&E Funded)	Capital Improvement Plan (Bonds)
<b>Funding Source</b>	Operations & Maintenance	Improvement & Extension Fund	Improvement & Extension Fund	Improvement & Extension Fund	Construction Bond Fund
<b>Fund Number</b>	5910 - Water 5960 - Sewer	5506 - Water 5404 - Sewer	5506 - Water 5404 - Sewer	5506 - Water 5404 - Sewer	5519 - Water 5421 - Sewer
<b>Account Number</b>	901060	901100	901100	See CA&FR Team	See CA&FR Team
<b>Rationale</b>	Controllable asset, tagged and tracked for internal control purposes. Shorter lived assets such as computer software and hardware.	Items that cause variability in the annual financial plan that do not meet the criteria for CIP	Items that cause variability in the annual financial plan that do not meet the criteria for GLWA criteria bond funding	Engineering, design, and study services associated with a specific constructed asset in the CIP	Constructed assets eligible for bond funding
<b>Frequency</b>	Recurring in nature	Unique, nonrecurring purchases, and/or large dollar assets on a replacement program	Unique, nonrecurring purchases, and/or large dollar assets on a replacement program	Project specific	Project Specific
<b>Life</b>	Greater than One Year	Greater than One Year	Greater than One Year	Greater than 20 Years	Greater than 20 Years
<b>Examples</b>	IT Equipment & Software that does not meet the Capitalization Policy threshold	Vehicles, large equipment, pumps, motors, and security equipment; no or low relative amount of installation costs	Infrastructure, plant, and facility upgrade, rehabilitation, and/or replacement	Infrastructure, plant, and facility upgrade, rehabilitation, and/or replacement	Infrastructure, plant, and facility upgrade, rehabilitation, and/or replacement
<b>Justification</b>	Internal review panel, prioritization	Internal review panel, prioritization, replacement validation with asset records and other current market information	Internal review panel, prioritization, replacement validation with asset records and other current market information	Business Case Evaluation; Internal Review Panel; Member Outreach; GLWA Board Committee	Business Case Evaluation; Internal Review Panel; Member Outreach; GLWA Board Committee

Items identified as "Capital Outlay" are assets or programs acquired for the betterment of the system and are both above the dollar threshold for capitalizing on the financial statements (i.e. over \$5,000), and are assets that should be tagged and tracked for internal control purposes. In both instances, these assets have an estimated useful life of greater than one year.

Capital Outlay includes vehicles, shop, lab, plant and field equipment, office furniture and equipment, as well as software and hardware. Generally capital outlay items have a life of less than 20 years. Capital Outlay items are not included in the "Capital Improvement Plan" (CIP). The CIP focuses on longer lived constructed assets with a useful life greater than 20 years, although some of the CIP expenditures do have lives less than 20 years.

The tables in this section present an entity-wide view of GLWA's capital outlay. Some capital outlay costs are shared between the Water and Wastewater systems. Examples of this include fleet, centralized services, facilities, and information technology.

Table 1 – *Capital Outlay by System* depicts the capital outlay by Water & Wastewater systems. Each system budgets for specific types of expenditures as shown in Table 3 - *Total Capital Outlay by Asset Type* on the following page as well as the assets noted above which support both systems.

Table 1 – *Capital Outlay by System*

Operating System	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Water System	\$ 21,006,500	\$ 20,698,800	\$ 16,041,200	\$ 9,992,600	\$ 10,720,500	\$ 15,014,600
Wastewater System	16,417,900	24,985,900	21,373,500	11,930,300	12,535,100	11,298,700
Grand Total	\$ 37,424,400	\$ 45,684,700	\$ 37,414,700	\$ 21,922,900	\$ 23,255,600	\$ 26,313,300

Since assets are replaced on a periodic basis, annual expenditures may not be consistent. In addition, some capital outlay projects span several years and five-year planning documents. Examples of these projects include the following.

- ❖ The replacement of the security perimeter fencing and electronic components around all GLWA facilities. This project is scheduled to run from FY 2018 through FY 2022 replacing approximately 20% of these assets each year at an average annual projected cost of \$1.1 million.
- ❖ Instrumentation & control hardware and software for the wastewater system. This project is forecast for FY 2019 through FY 2022 at an average annual cost of \$4.0 million.
- ❖ GLWA enterprise wide software systems. The forecast replacement of these systems is scheduled from FY 2019 through FY 2023 at an average annual cost of \$1.0 million.
- ❖ Facility renovations such as the data center move. This project is expected to run from FY 2020 through FY 2022 at an average annual cost of \$1.0 million.
- ❖ An assessment of the Combined Sewer Overflow facilities reviewing the criticality, condition and forecast replacement schedule of these facilities. The assessment is scheduled to run from FY 2020 through FY 2021 at an average annual cost of \$2.3 million.

## Funding Sources

The Capital Outlay expenditures are proposed to be \$45.7 million for FY 2021, and \$37.4 million for FY 2022. As shown in Table 2 – *Capital Outlay Biennial Budget by Funding Source*, Capital Outlay is funded by two primary sources: Operations & Maintenance (O&M) and Improvement & Extension (I&E) funds.

- ❖ **Operations & Maintenance:** Capital outlay items funded by the O&M Fund are paid with current year revenues. The nature of these items is recurring so the impact on charges from



year-to-year is not significant. The total capital outlay paid with O&M funds is included in Schedule 2A in Section 2-Core Financial Plan Schedules

- ❖ **Improvement & Extension:** Capital outlay items funded by the I&E Fund are paid with revenue financed capital carried over from prior years. The nature of these items is not necessarily recurring each year. They are, instead, replaced on a longer-term cycle or unique to a three to five-year planning horizon. The total capital outlay paid with I&E funds is included in Schedules 5A and 5B in Section 2-Core Financial Plan Schedules.

Table 2 – Capital Outlay Biennial Budget by Funding Source

Funding Source	FY 2020 Amended Budget	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2021 Dollar Variance	FY 2021 Percent Variance	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
Operations & Maintenance	\$ 7,177,000	\$ 3,193,500	\$ 7,311,600	\$ 134,600	1.9%	\$ 7,859,800	\$ 6,740,300	\$ 7,422,100	\$ 6,808,100
Improvement & Extension	30,247,400	1,690,700	38,373,100	8,125,700	26.9%	29,554,900	15,182,600	15,833,500	19,505,200
<b>Grand Total</b>	<b>\$ 37,424,400</b>	<b>\$ 4,884,200</b>	<b>\$ 45,684,700</b>	<b>\$ 8,260,300</b>	<b>22.1%</b>	<b>\$ 37,414,700</b>	<b>\$ 21,922,900</b>	<b>\$ 23,255,600</b>	<b>\$ 26,313,300</b>

Table 3 - Total Capital Outlay by Asset Type (funded by both O&M and I&E)

Asset Type	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Operations &amp; Maintenance</b>	<b>\$ 7,177,000</b>	<b>\$ 7,311,600</b>	<b>\$ 7,859,800</b>	<b>\$ 6,740,400</b>	<b>\$ 7,422,100</b>	<b>\$ 6,808,100</b>
<b>Information Technology</b>	<b>5,690,600</b>	<b>6,419,300</b>	<b>6,931,100</b>	<b>5,855,500</b>	<b>6,372,500</b>	<b>5,900,000</b>
Data/Network	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Hardware	1,156,000	1,272,900	1,291,300	1,310,500	1,330,000	1,334,000
Software	2,534,600	3,146,400	3,639,800	2,545,000	3,042,500	2,566,000
<b>Leasehold Improvements</b>	<b>192,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>
<b>Machinery &amp; Equipment</b>	<b>1,210,600</b>	<b>688,600</b>	<b>664,500</b>	<b>669,900</b>	<b>820,800</b>	<b>693,800</b>
Computers & IT	4,650	4,700	60,400	14,200	151,700	17,900
Controls & Communication	656,000	237,300	189,800	206,400	255,200	208,400
Flow Measuring & Meters	2,750	-	3,000	-	3,000	-
Furniture & Fixtures	501,200	282,100	280,200	280,500	280,700	280,800
Laboratory	2,000	45,000	6,000	46,500	7,000	48,500
Machinery & Equipment	25,000	50,000	50,000	50,000	50,000	50,000
Pipes, Gates & Valves	-	12,500	12,500	12,600	12,700	12,800
Process Equipment	15,000	35,000	35,000	36,000	36,200	36,600
Pumps & Motors	4,000	22,000	27,600	23,700	24,300	38,800
<b>Tools, Shop &amp; Warehouse</b>	<b>22,600</b>	<b>105,300</b>	<b>111,800</b>	<b>110,900</b>	<b>119,100</b>	<b>109,000</b>
<b>Multiple Asset Types</b>	<b>35,700</b>	<b>70,400</b>	<b>70,600</b>	<b>70,800</b>	<b>70,800</b>	<b>70,800</b>
<b>Safety &amp; Security</b>	<b>25,500</b>	<b>26,000</b>	<b>79,800</b>	<b>31,300</b>	<b>36,900</b>	<b>32,500</b>

Asset Type	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
<b>Improvement &amp; Extension</b>	<b>\$ 30,247,400</b>	<b>\$ 38,373,100</b>	<b>\$ 29,554,900</b>	<b>\$ 15,182,500</b>	<b>\$ 15,833,500</b>	<b>\$ 19,505,200</b>
Buildings & Structures	1,007,500	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Information Technology	5,580,500	10,830,500	10,830,500	80,500	80,500	80,500
Hardware	5,500,000	6,750,000	6,750,000	-	-	-
Software	80,500	4,080,500	4,080,500	80,500	80,500	80,500
Leasehold Improvements	910,000	278,000	750,000	250,000	1,050,000	208,000
<b>Machinery &amp; Equipment</b>	<b>16,110,300</b>	<b>16,273,200</b>	<b>11,976,900</b>	<b>10,711,100</b>	<b>11,030,000</b>	<b>15,882,700</b>
Computers & IT	4,380,000	3,507,500	4,437,200	2,315,000	1,533,000	1,071,500
Controls & Communication	610,000	2,220,000	200,000	816,000	3,185,000	8,022,000
Flow Measuring & Meters	820,600	626,000	747,000	250,900	220,000	175,000
Furniture & Fixtures	484,000	556,000	120,000	110,000	105,000	123,800
Heavy Equipment	605,000	985,000	485,000	89,000	120,000	512,000
Heavy Equipment & Misc.	-	500,000	-	-	-	-
Laboratory	364,700	279,000	357,100	393,400	258,000	376,000
Machinery & Equipment	-	68,000	-	-	68,000	-
Pipes, Gates & Valves	767,000	955,000	941,500	1,489,000	655,000	565,000
Process Equipment	2,164,000	1,199,000	1,166,500	1,590,200	1,045,000	995,000
Pumps & Motors	5,749,000	5,297,100	3,417,600	3,622,600	3,766,000	4,032,400
Tools, Shop & Warehouse	166,000	80,600	105,000	20,000	75,000	10,000
Utility Vehicle	-	-	-	15,000	-	-
<b>Multiple Asset Types</b>	<b>2,000,000</b>	<b>2,950,000</b>	<b>2,000,000</b>	-	-	-
<b>Safety &amp; Security</b>	<b>2,359,000</b>	<b>1,093,800</b>	<b>850,300</b>	-	-	-
<b>Site Improvements</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>	<b>50,000</b>
<b>Vehicles</b>	<b>2,230,100</b>	<b>2,864,600</b>	<b>2,097,200</b>	<b>3,090,900</b>	<b>2,623,000</b>	<b>2,284,000</b>
Heavy Truck	385,000	150,000	-	-	475,000	-
Light Truck	495,000	590,000	130,000	110,000	80,000	80,000
Passenger	773,000	1,036,300	1,034,600	1,512,600	1,013,000	1,130,000
Trailer & Towable Equipment	-	20,000	40,000	-	40,000	-
Utility Vehicle	57,000	32,000	-	7,000	15,000	74,000
Vehicles	520,100	1,036,300	892,600	1,461,300	1,000,000	1,000,000
<b>Non-Capitalizable Improvement</b>	<b>-</b>	<b>3,033,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>	<b>\$ 37,424,400</b>	<b>\$ 45,684,700</b>	<b>\$ 37,414,700</b>	<b>\$ 21,922,900</b>	<b>\$ 23,255,600</b>	<b>\$ 26,313,300</b>

*Table 4 - Total Capital Outlay by Team (funded by both I&E and O&M)*

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
881101 - Public Affairs	\$ 37,500	\$ 5,000	\$ 18,000	\$ 10,000	\$ 22,000	\$ 5,000
881201- Security	1,173,200	-	-	-	-	-
881202- HazMat	31,800	26,000	79,800	31,200	36,900	32,500
882111 - Water Engineering	5,500	11,500	5,500	5,500	5,500	11,500
882111- Water Engineering	54,700	5,000	5,000	5,000	5,000	5,000
882121 - Water Quality	37,000	47,000	45,000	66,000	37,000	65,000
882131 - Water Works Park	365,400	636,100	358,100	423,800	404,000	404,000
882141 - Springwells Water Plant	745,200	979,400	642,600	361,800	911,800	360,800
882151 - Northeast Water Plant	940,300	930,000	410,000	610,000	410,000	610,000
882161 - Southwest Water Plant	248,200	640,000	275,000	275,000	275,000	275,000
882171 - Lake Huron Water Plant	159,000	678,000	63,000	28,000	436,000	50,000
882301 - Systems Operations Control	1,477,000	1,605,000	1,567,500	1,605,000	1,505,000	1,505,000
882421 - Facility Operations	162,500	187,500	187,500	187,500	187,500	187,500
882422 - Fleet Operations	990,100	1,506,300	942,600	1,550,100	1,000,000	1,000,000
882431 - Field Service Operations		75,000	75,000	75,000	75,000	75,000
882501 - Energy, Research & Innovation		127,000		75,000		50,000
883321- Info Technology Service Desk	1,170,100	1,410,000	1,433,300	1,454,000	1,474,000	1,482,000
883331- Info Technology Infrastructure	4,741,800	4,313,800	4,788,100	3,362,500	3,859,000	3,378,000
883341- Info Technology Business Applications	-	50,000	50,000	50,000	50,000	50,000
883341- Info Technology Enterprise Applications	666,100	4,000,000	4,000,000	-	-	-
883351- Info Technology Business Applications	2,800,000	5,582,500	5,596,200	925,000	925,000	925,000
883361- Info Technology Security & Risk	62,500	63,000	63,500	64,000	64,500	65,000
884124- Logistics & Materials	-	1,250,000	-	-	-	-
886001 - Chief Planning Officer	-	28,000	-	-	-	-
886001- Chief Planning Officer	2,000	2,000	2,000	2,000	2,000	2,000
886101 - Systems Planning	194,800	450,000	20,000	10,000	5,000	5,000
886201 - Asset Mangement	55,000		14,000	-	-	-
886401 - Systems Analytics	285,700	827,900	765,800	763,900	849,900	760,400
886601 - Capital Improvement Planning	57,500	-	-	-	-	-
891101 - Public Affairs	37,500	2,500	9,000	5,000	11,000	-
891201- Security	1,173,200	1,093,800	850,300	-	-	-
891202- HazMat	6,300	-	-	-	-	-
892201 - Wastewater Director	1,302,500	435,000	346,000	347,000	623,000	149,000
892211 - Wastewater Engineering	445,700	-	-	-	-	-
892221 - Wastewater Operations	1,200,000	1,620,000	1,651,000	1,098,500	1,056,000	1,116,000
892222 - Wastewater Process Control	<b>3,034,600</b>	1,304,700	2,970,600	814,200	151,700	584,400
892223 - Wastewater Primary Process	2,605,000	1,892,000	370,300	306,600	395,700	308,200
892224 - Wastewater Secondary Process	320,000	485,000	135,300	165,100	135,900	136,200
892225 - Wastewater Dewatering Process	350,000	368,000	238,000	259,000	211,700	146,600
892226 - Wastewater Incineration Process	253,100	88,000	178,500	89,000	49,500	496,000

Team	FY 2020 Amended Budget	FY 2021 Department Requested	FY 2022 Department Requested	FY 2023 Department Requested	FY 2024 Department Requested	FY 2025 Department Requested
892231 - Industrial Waste Control	154,900	73,000	190,000	75,500	36,500	226,800
892235 - Wastewater Laboratories	137,000	-	40,100	143,200	15,000	3,500
892270 - Combined Sewer Overflow	-	3,033,000	-	-	-	-
892271 - Puritan-Fenkell Combined Sewer Overflow	374,300	149,800	230,000	235,500	95,000	990,000
892272 - 7 Mile Combined Sewer Overflow	451,800	5,100	131,000	35,000	60,000	1,256,400
892273 - Hubbell-Southfield Combined Sewer Overflow	180,000	110,000	260,000	110,000	2,710,000	110,000
892274 - Leib Combined Sewer Overflow	220,000	462,000	302,000	197,500	42,000	42,000
892275 - St. Aubin Combined Sewer Overflow	33,000	281,000	152,000	827,400	18,000	68,000
892276 - Conner Creek Combined Sewer Overflow	140,000	325,000	275,000	573,000	285,000	6,140,000
892277 - Baby Creek Combined Sewer Overflow	424,200	307,000	222,000	324,800	229,000	234,000
892278 - Oakwood Combined Sewer Overflow	385,000	150,000	95,000	332,000	1,095,000	95,000
892301 - Systems Operations Control	1,375,000	1,475,000	1,125,000	1,475,000	1,375,000	1,375,000
892421 - Facility Operations	62,500	62,500	62,500	62,500	62,500	62,500
892422 - Fleet Operations	520,100	1,036,300	1,362,600	1,461,300	1,000,000	1,470,000
893331- Info Technology Infrastructure	1,000,000	1,000,000	1,000,000	-	-	-
893351- Info Technology Business Applications	2,750,000	2,750,000	2,750,000	-	-	-
896101 - Systems Planning	168,000	-	-	-	-	-
896201 - Asset Mangement	55,000	-	-	-	-	-
896401 - Systems Analytics	1,745,300	1,740,000	1,061,000	1,045,500	1,045,000	-
896601 - Capital Improvement Planning	57,500	-	-	-	13,000	-
Grand Total	\$37,424,400	\$45,684,700	\$37,414,700	\$21,922,900	\$23,255,600	\$26,313,300

## Capital Improvement Plan (CIP)

GLWA's CIP outlines the major capital asset investments in programs and projects to upgrade the Authority's water and wastewater system infrastructure, as well as the centralized service facilities and programs that support both systems. The CIP is a five-year plan which identifies capital projects and programs and their respective financing options. The plan does include a ten-year outlook.

Projects and programs established in the CIP are identified and recommended from many different sources. Several projects are necessary to meet permit and regulatory requirements, while others have been identified in master plans and condition or need assessments. The latter of which make up the primary sources of projects within the CIP .

## Capital Improvement Plan at-a-glance

Water System	Sewer System
The adopted FY 2021-2025 Water CIP calls for \$935.4 million of major capital expenditures over the next five fiscal years.	The FY 2021-2025 Sewer CIP calls for \$739.4 million of major capital expenditures over the next five fiscal years.
The FY 2021-2025 capital financing plan is based on a 75% Spend Rate Assumption	The FY 2021 - 2025 capital financing plan is based on a 75% Spend Rate Assumption
The Regional Water System CIP projects are driven by: <ul style="list-style-type: none"> <li>✓ The Water System Master plan innovative "right sizing" approach</li> <li>✓ Condition assessments to focus investment on "surgical" renewal and replacement</li> </ul> Less than 1% of the CIP is driven by mandated permit requirements	The Regional Sewer System CIP projects are driven by: <ul style="list-style-type: none"> <li>✓ The Sewer System Master plan "pipes don't know the boundaries" concept</li> <li>✓ Innovative Wet Weather strategies</li> </ul>
The CIP addresses: <ul style="list-style-type: none"> <li>✓ Water delivery</li> <li>✓ Production</li> <li>✓ General Purpose and Central Services</li> </ul>	The CIP addresses: <ul style="list-style-type: none"> <li>✓ Water Resource Recovery Facility</li> <li>✓ Collection</li> <li>✓ General Purpose, Metering, and Central Services</li> </ul>
Funding <ul style="list-style-type: none"> <li>✓ The CIP is funded with pay-go and State Drinking Water Revolving Fund loans</li> </ul>	Funding <ul style="list-style-type: none"> <li>✓ The CIP is funded will be funded with pay-go and State Clean Water Revolving Fund loans</li> </ul>

## **CIP Update Process**

Annually, this plan is updated to reflect changing system needs, priorities and funding opportunities. The CIP process is a substantial level of effort that involves many team members throughout the Authority. Modifications, adjustments, and improvements are continuously considered and vetted internally and externally through various Member Outreach Work Groups. Projects and programs that ultimately get funded within the CIP are typically identified based upon master planning or condition/need assessment efforts. Projects also are identified internally based upon the needs of engineers, operations or maintenance staff. An internal effort to coordinate and prioritize all identified projects is conducted to ensure the appropriate projects are being funded in a prioritized manner.

This CIP is a planning document and not necessarily a budget. The timing can be dynamic – this is particularly true when there are interagency approvals and innovative alternatives that occur in the design phase. The estimates vary in precision depending on the project phase. A project at preliminary design phase will be more subject to estimate compared to a project where construction is in process. Execution of the CIP will provide greater system reliability and result in meeting or exceeding current service levels. Current and prior CIPs are available on GLWA's website at <https://www.glwater.org/CIP/>.

The intersection of the CIP and the GLWA's overall financial plan balances several objectives to support the Authority's mission. Those objectives include the following:

- ✓ Smoothing of annual adjustments to service charges
- ✓ Transparency in the development of the financial plan
- ✓ Focus on affordability
- ✓ Reduced debt burden
- ✓ Collaboration among internal and external stakeholders
- ✓ Ensure a sustainability long-term financial position



## Funding

The Authority draws upon five sources of funding for its CIP:

### ❖ **Bond Proceeds**

The GLWA uses an incremental method of funding long-lived capital projects through a bond financing program rather than funding all projects in advance. The Authority issues revenue bonds pursuant to Michigan Public Act 94 of 1933 (the Revenue Bond Act). The Act provides a pledge of “net revenues” for the payment of the bond principal and interest. “Net revenues” means the revenues of the system remaining after deducting reasonable expenses for administration, operation, and maintenance of the water and sewer systems.

### ❖ **Transfers from the Improvement & Extension Fund (Revenue Financed Capital)**

Based upon ongoing expense, capital, and revenue optimization efforts, the GLWA is building a pay-as-you-go plan for shorter-lived and lower-dollar capital expenditures. These funds are accounted for in the Improvement & Extension fund. In addition, establishing sufficient revenue financed capital is critical to strategically reducing the water and sewer systems’ reliance on long-term debt. Striking the optimal balance between bond proceeds and revenue financed capital will lower the cost of capital over the long-term. Revenue financed capital is budgeted for use only after it is received to minimize financial plan risk. When I&E funds are assigned to offset a portion of the costs of specific capital expenses, a transfer is made from the I&E Fund to the Construction Bond Fund.

### ❖ **State and Federal Loan Programs**

The GLWA actively seeks funding from lower cost financing programs including the State Revolving Fund (SRF) loan program which includes federal financing. The SRF loan program includes both the Drinking Water Revolving Fund (DWRf) loan program and the Clean Water Revolving Fund (CWRf) loan program.

### ❖ **Grants**

The Authority utilizes public grants programs such as Stormwater, Asset Management, and Wastewater (SAW) program which provides both grants and loans. GLWA is pursuing federal and private grants for energy optimization.

### ❖ **Contributed Capital**

Periodically, the Authority may have the opportunity to optimize the systems with specific member partner participation. Depending on the nature of the shared financing strategy, the Authority may offset the cost of system expansion or improvements with contributed capital from that member partner.

To ensure proper accountability of funding sources and uses, the Authority’s water and wastewater systems each utilizes two funds for its capital program which are described below:

**Construction Fund:** This fund receives the proceeds of bond issuances and related interest earnings for the purposes of financing capital improvements. GLWA has made a concentrated effort to implement a CIP financial plan strategy where long-lived assets, defined as



constructed infrastructure and plant facilities with an estimated useful life greater than 20 years, are eligible for bond funding. The long-lived assets are funded with a blend of debt and I&E funds. I&E funds designated for CIP expenditures are transferred to the Construction Fund.

**Improvement & Extension (I&E) Fund:** The I&E Fund is defined by the Authority's Master Bond Ordinance (MBO) as the "fund used for improvements, enlargements, extensions or betterment" of the System. Cash receipts of the Authority are transferred into the I&E Fund pursuant to a flow of funds after commitments are met for a monthly allocation of operations and maintenance expense, debt service, pension, WRAP, budget stabilization fund, and extraordinary repair and replacement fund as administered by a trustee. Capital outlay items are funded with I&E Funds. Capital outlay are items that are generally purchased (rather than constructed) and with an estimated useful life of less than 20 years. As a general rule, assets in the CIP with a life of less than 20 years are funded with I&E funds.

The basis of accounting for the capital spending is the accrual basis. Under this basis of accounting, revenues are recognized when earned and measurable regardless of when collected; and expenses are recorded, or accrued, on a matching basis when incurred. Accrued expenses are expected to be paid in a subsequent accounting period.

Debt financing sources include bond proceeds for specific projects that are financed by the State Revolving Fund (SRF) at a lower cost of borrowing. The Authority intends to apply for future SRF funding; only approved SRF financings are shown in the financial plan.

The potential funding source identified for each project is subject to change based upon the systems need and financial resources available at the time. For the purposes of the financial plan, a board "Capital Spending Ratio" (CSR) is applied to the total CIP to ensure that borrowings do not exceed program needs. For this five-year financial plan, the capital improvement plan project expenses are netted to 75% of the respective amount in the CIP. This differential is based on historical variances and the project mix in the CIP. This variance is not unusual given the project nature of the CIP.

## Revenue Requirements

Revenue requirements are the basis for establishing customer charges. Included in that calculation are operations and maintenance expense, debt service, Master Bond Ordinance (MBO) reserve requirements, system lease requirements, revenue financed capital targets, water residential assistance program commitments, and legacy obligations. The cost of capital improvements is allocated to customers among four general cost pools as described following:

1. **Common-to-All (CTA)** represents costs that are allocable to all customers.
2. **Oakland-Macomb Interceptor Drainage District (OMID)** represents costs that are allocable to a portion of the sewer system that receives flows from OMID's system.
3. **Suburban Only** represents costs that are allocable to wholesale customers outside the City of Detroit.

4. **CSO 83/17** represents capital costs that are allocated based upon terms of a 1999 rate settlement agreement sanctioned by a federal court. The outcome was an allocation of 83% of “combined sewer overflow control facilities” (CSO) costs to City of Detroit customers and 17% to other customers.

These cost pools forecast the allocation of the debt service among Member Partners. The table below shows the allocation of the CIP by those cost pools – although it should be noted that the annual charges costs of services study allocates costs based on actual, not planned, investment in infrastructure based on the capital asset ledger.

**Capital Improvement Plan  
 Projected Capital Expenditures (\$000)**

<b>Cost Allocation</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>Total FY 2021-2025</b>	<b>Percent of Five Year Total</b>
<b>Water</b>							
Common-to-all	\$ 145,029	\$ 177,383	\$ 200,753	\$ 212,732	\$ 193,064	\$ 928,961	99.3%
Suburban Only	2,535	2,535	1,139	121	120	6,450	0.7%
<b>Total Water</b>	<b>\$ 147,564</b>	<b>\$ 179,918</b>	<b>\$ 201,892</b>	<b>\$ 212,853</b>	<b>\$ 193,184</b>	<b>\$ 935,411</b>	<b>100.0%</b>
<b>75% Spend Rate Assumption (1)</b>	<b>\$110,673</b>	<b>\$134,939</b>	<b>\$151,419</b>	<b>\$159,640</b>	<b>\$144,888</b>	<b>\$701,559</b>	
<b>Sewer</b>							
Common-to-all	\$ 100,330	\$ 100,117	\$ 127,781	\$ 194,221	\$ 145,006	\$ 667,455	90.3%
Suburban Only	10,308	12,595	12,890	5,077	24,787	65,657	8.9%
To Be Decided	-	45	172	3,960	2,146	6,323	0.8%
<b>Total Sewer</b>	<b>\$ 110,638</b>	<b>\$ 112,757</b>	<b>\$ 140,843</b>	<b>\$ 203,258</b>	<b>\$ 171,939</b>	<b>\$ 739,435</b>	<b>100.0%</b>
<b>75% Spend Rate Assumption (1)</b>	<b>\$82,979</b>	<b>\$84,568</b>	<b>\$105,632</b>	<b>\$152,444</b>	<b>\$128,954</b>	<b>\$554,577</b>	

(1) Amounts included in Biennial Budget & Five Year Financial Plan-See Core Financial Plan Schedules 5C & 5D

## Water CIP

The Water CIP supports activities to carry out the Water Master Plan completed in 2015 and accepted by the GLWA Board in 2016. The Master Plan is based on new forecasts of population and water use and by identifying the lowest life cycle solutions in collaboration with our member partners.

### **There are seven priorities identified in the Water Master Plan:**

- ❖ Reduce water treatment plant capacity to align with projected water demand
- ❖ Reduce non-revenue water
- ❖ Reduce energy use and energy costs
- ❖ Collaborate with customers to address long standing water transmission problems
- ❖ Update water quality goals and monitoring efforts
- ❖ Optimize return on investments using asset management to prioritize capital improvements
- ❖ Renew and rehabilitate the water distribution system in the City of Detroit (Note that this priority was identified prior to the effective date of GLWA operations. The costs to rehabilitate the City's system are borne by the Detroit Water & Sewerage Department (DWSD). This significance to GLWA shifts to effective planning and coordination with the DWSD.)

The [Water Master Plan](#) is available on GLWA's website.

## Sewer CIP

The Wastewater Master Plan (WWMP) which was started in 2017 is nearing completion. This is collaborative effort with member partners, MDEQ and other agencies, and regional stakeholders. The plan ensures that the wastewater system meets current and future needs and is able to provide cost-efficient, regulatory-compliant and reliable services to the GLWA communities for the next 40 years. Certain projects in the Sewer CIP are a part of the conceptual WWMP.

### **There are five desired outcomes identified in that plan which will serve as filters in determining which projects will be included in the plan:**

- ❖ Protect public health and safety
- ❖ Preserve natural resources and a healthy environment
- ❖ Maintain reliable, high-quality service
- ❖ Assure value of investment
- ❖ Contribute to economic prosperity

The proposed Wastewater Master Plan will be presented to the Board in August 2020.

## CIP Summary

The tables below summarize the Water Fund and Sewage Disposal Fund CIP Expenditures by project categories.

Water Capital Improvement Plan (\$000)									
Category	Lifetime Thru FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 & Beyond	Project Total
<b>Treatment Plants &amp; Facilities</b>									
Lake Huron	\$ 11,226	\$ 10,260	\$ 7,160	\$ 5,538	\$ 25,046	\$ 29,525	\$ 23,203	\$ 19,786	\$ 131,744
Northeast	1,152	939	3,869	3,040	889	1,228	2,383	53,914	67,414
Southwest	3,266	2,348	1,354	2,238	2,238	17	-	14,412	25,873
Springwells	118,841	23,861	28,653	25,132	25,403	34,174	31,213	187,652	474,929
Water Works Park	8,960	2,687	7,461	16,959	24,017	21,262	8,836	5,643	95,825
General Purpose	10,200	653	14,138	21,917	8,810	5,527	-	-	61,245
<b>Total Treatment Plants &amp; Facilities</b>	<b>153,645</b>	<b>40,748</b>	<b>62,635</b>	<b>74,824</b>	<b>86,403</b>	<b>91,733</b>	<b>65,635</b>	<b>281,407</b>	<b>857,030</b>
<b>Field Services - Transmission System</b>	<b>52,751</b>	<b>23,057</b>	<b>48,702</b>	<b>67,859</b>	<b>75,612</b>	<b>75,075</b>	<b>78,580</b>	<b>213,270</b>	<b>634,906</b>
<b>System Control Center - Pump Stations/Reservoir</b>	<b>3,150</b>	<b>5,792</b>	<b>12,018</b>	<b>16,185</b>	<b>21,196</b>	<b>26,958</b>	<b>23,841</b>	<b>83,244</b>	<b>192,384</b>
<b>General Purpose</b>	<b>22,037</b>	<b>16,085</b>	<b>19,426</b>	<b>18,199</b>	<b>18,429</b>	<b>19,001</b>	<b>24,683</b>	<b>131,276</b>	<b>269,136</b>
<b>Total Water Projects</b>	<b>231,583</b>	<b>85,682</b>	<b>142,781</b>	<b>177,067</b>	<b>201,640</b>	<b>212,767</b>	<b>192,739</b>	<b>709,197</b>	<b>1,953,456</b>
<b>Central Service Projects Allocated to Water</b>									
Security	-	4,029	4,018	2,603	-	-	-	-	10,650
Energy Management Programs	6 56	- 1,415	50 715	248 -	252 -	- 86	- 445	- 2,904	556 5,621
<b>Total Central Services Allocated To Water</b>	<b>62</b>	<b>5,444</b>	<b>4,783</b>	<b>2,851</b>	<b>252</b>	<b>86</b>	<b>445</b>	<b>2,904</b>	<b>16,827</b>
<b>Total Water CIP</b>	<b>\$ 231,645</b>	<b>\$ 91,126</b>	<b>\$ 147,564</b>	<b>\$ 179,918</b>	<b>\$ 201,892</b>	<b>\$ 212,853</b>	<b>\$ 193,184</b>	<b>\$ 712,101</b>	<b>\$ 1,970,283</b>
<b>75% Spend Rate Assumption (1)</b>			<b>\$110,673</b>	<b>\$134,939</b>	<b>\$151,419</b>	<b>\$159,640</b>	<b>\$144,888</b>		

(1) Amounts included in Biennial Budget & Five Year Financial Plan-See Core Financial Plan Schedules 5C & 5D

**Wastewater Capital Improvement Plan (\$000)**

Category	Lifetime Thru FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026 & Beyond	Project Total
<b>Water Resource Recovery Facility</b>									
Primary Treatment	\$ 73,669	\$ 12,301	\$ 13,353	\$ 13,237	\$ 11,925	\$ 44,809	\$ 41,230	\$ 152,872	\$ 363,396
Secondary Treatment & Disinfection	58,238	6,793	6,462	7,992	8,046	41,517	15,896	113,158	258,102
Residuals Management	9,357	8,502	3,770	1,021	14,432	6,058	-	-	43,140
IWC	2,301	10,369	1,331	-	-	-	-	-	14,001
CSO RTB & SDF	-	-	-	-	-	-	-	-	-
General Purpose	1,556	7,642	8,516	9,084	22,282	18,690	6,081	273	74,124
<b>Total WRRF</b>	<b>145,121</b>	<b>45,607</b>	<b>33,432</b>	<b>31,334</b>	<b>56,685</b>	<b>111,074</b>	<b>63,207</b>	<b>266,303</b>	<b>752,763</b>
<b>Field Services-</b>									
Inteceptors	10,596	17,658	27,310	18,347	21,270	31,112	26,704	23,317	176,314
<b>System Control Center</b>									
Pumping Stations	9,035	34,916	12,067	1,041	9,898	23,830	30,803	138,071	259,661
In System Devices	-	-	-	32	86	3,374	1,984	41,321	46,797
<b>SCC Total</b>	<b>9,035</b>	<b>34,916</b>	<b>12,067</b>	<b>1,073</b>	<b>9,984</b>	<b>27,204</b>	<b>32,787</b>	<b>179,392</b>	<b>306,458</b>
<b>General Purpose</b>	<b>28,710</b>	<b>31,386</b>	<b>32,174</b>	<b>55,492</b>	<b>47,443</b>	<b>31,230</b>	<b>42,870</b>	<b>102,687</b>	<b>371,992</b>
<b>CSO Facilities</b>	<b>-</b>	<b>147</b>	<b>4,067</b>	<b>3,226</b>	<b>2,400</b>	<b>904</b>	<b>4,669</b>	<b>6,466</b>	<b>21,879</b>
<b>Total Wastewater Projects</b>	<b>193,462</b>	<b>129,714</b>	<b>109,050</b>	<b>109,472</b>	<b>137,782</b>	<b>201,524</b>	<b>170,237</b>	<b>578,165</b>	<b>1,629,406</b>
<b>Central Service Projects Allocated to Wastewater</b>									
Facilities	802	321	91	1,745	1,724	1,708	1,702	1,652	9,745
Security	-	1,579	1,051	-	-	-	-	-	2,630
Programs	(51)	86	446	1,540	1,337	26	-	-	3,384
<b>Total Central Services Allocated</b>	<b>751</b>	<b>1,986</b>	<b>1,588</b>	<b>3,285</b>	<b>3,061</b>	<b>1,734</b>	<b>1,702</b>	<b>1,652</b>	<b>15,759</b>
<b>Total Wastewater CIP</b>	<b>\$ 194,213</b>	<b>\$ 131,700</b>	<b>\$ 110,638</b>	<b>\$ 112,757</b>	<b>\$ 140,843</b>	<b>\$ 203,258</b>	<b>\$ 171,939</b>	<b>\$ 579,817</b>	<b>\$ 1,645,165</b>
<b>75% Spend Rate Assumption (1)</b>			<b>\$82,979</b>	<b>\$84,568</b>	<b>\$105,632</b>	<b>\$152,444</b>	<b>\$128,954</b>		

(1) Amounts included in Biennial Budget & Five Year Financial Plan-See Core Financial Plan Schedules 5C & 5D

## CIP Types

A "Project" consists of the replacement and/or rehabilitation of specific capital assets within a finite timeframe and scope.

A "Program" consists of the replacement and/or rehabilitation of specific capital assets on an ongoing or recurring basis. The program scope and/or projected expenses may vary from year-to-year depending on the needs identified within the program and as newly established programs develop consistent schedules, requirements and history over time. These programs will typically be funded in perpetuity.

## Categories

The table below lists the categories of CIP and whether they are considered recurring. The General Purpose category is used to identify projects that cross over multiple project categories.

Category	Type	Recurring
<b>Water</b>		
Water Treatment Plants & Facilities	Project	No
Field Services	Program	Yes
System Control Center	Project & Program	Yes
Water Quality	Program	Yes
Metering	Program	Yes
General Purpose	Program	Yes
Programs	Program	Yes
<b>Wastewater</b>		
Water Resourc Recovery Facility	Project	No
Field Services	Program	Yes
System Control Center	Project & Program	Yes
Water Quality	Program	Yes
Metering	Program	Yes
General Purpose	Program	Yes
Programs	Program	Yes
CSO Facilities	Project	No
<b>Central Services</b>		
Information Technology	Project	No
Fleet	Program	Yes
Facilities	Project	No
Security	Program	Yes
Energy Management	Project	No
Engineering	Program	Yes
General Purpose	Program	Yes
Programs	Program	Yes

## Nonrecurring Projects in the CIP for FY 2021 through FY 2025

The tables below list the nonrecurring projects that are budgeted for greater than \$30 million over the FY 2021 through FY 2025 time period. There are eight (8) projects in the Water category and eight (8) projects in the Wastewater category.

Water Nonrecurring Projects with 2021-2025 CIP Total Greater than \$30M (\$000)											
CIP #	Project Title	Lifetime Actual Thru FY 2019	Projected Expenditures								Project Total
			FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026+	FY 2021-2025 CIP Total	
122003	Water Works Park to Northeast Transmission Main	2,611	1,169	11,703	18,407	18,678	18,170	20,839	65,949	87,797	157,526
122004	96-inch Water Transmission Main Relocation and Isolation Valve Installations	1,790	2,549	5,267	15,765	19,937	19,797	19,797	59,969	80,563	144,871
114002	Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements	2,080	3,039	7,113	12,893	18,905	18,690	19,175	92,940	76,776	174,835
115001	Water Works Park Water Treatment Plant Yard Piping, Valves and Venturi Meters	1,760	251	5,462	13,349	21,478	20,883	8,836	-	70,008	72,019
122013	14 Mile Transmission Main Loop	638	3,762	1,194	17,085	17,085	17,085	17,085	7	69,534	73,941
116002	Pennsylvania and Springwells Raw Water Supply Tunnel Improvements	10,200	653	14,138	21,917	8,810	5,527	-	-	50,392	61,245
111001	Lake Huron Water Treatment Plant, Low-Lift, High Lift and Filter Backwash Pumping System	14	1,236	1,636	1,749	13,725	12,768	12,841	11,121	42,719	55,090
132010	West Service Center Pumping Station - Reservoir, Reservoir Pumping, and Division Valve	296	663	4,323	12,209	11,853	8,361	-	-	36,746	37,705

Wastewater Nonrecurring Projects with 2021-2025 CIP Total Greater than \$30M (\$000)											
CIP #	Project Title	Lifetime Actual Thru FY 2019	Projected Expenditures								Project Total
			FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026+	FY 2021-2025 CIP Total	
212008	WRRF Aeration Improvements 1 and 2	-	183	4,612	7,977	7,619	40,638	15,336	5,149	76,182	81,514
232002	Freud & Conner Creek Pump Station Improvements	5,631	7,364	6,445	57	9,898	23,830	30,803	138,071	71,033	222,099
211007	WRRF PS #2 Bar Racks Replacements and Grit Collection System Improvements	1	256	3,098	7,546	2,120	20,899	34,034	8,642	67,697	76,596
222002	Detroit River Interceptor (DRI) Evaluation and Rehabilitation	10,592	16,199	23,634	9,786	1,465	10,014	9,986	-	54,885	81,676
260600	CSO Facilities Improvement Program	6,742	7,555	7,492	10,289	10,576	4,759	20,280	85,250	53,396	152,943
260500	CSO Outfall Rehabilitation	3,331	4,802	11,706	9,156	11,995	10,976	8,243	4,197	52,076	64,406
222004	Sewer System Infrastructure and Pumping Stations Improvements	4	1,459	2,701	5,433	16,434	9,864	3,279	1,952	37,711	41,126
222001	Oakwood District Intercommunity Relief Sewer Modification at Oakwood District	-	-	975	3,128	3,371	11,234	13,439	21,365	32,147	53,512



The following tables outline the impact of these nonrecurring projects on the financial plan. In general, improvements to the system provide for more efficient operations. In the table below, projects are noted which have additional elements for optimizing operations and reducing O&M costs. Many of these align with the Water Master Plan Right-Sizing strategies that have incorporated the 2015 Water Master Plan recommendations to right size infrastructure to allow for future capital cost avoidance. A specific aspect of the plan is the Northeast Water Treatment Plant (NEWTP) Repurposing in alignment with the 2015 Water Master Plan recommendations to repurpose the to allow for future capital cost avoidance. Redundancy & Reliability identifies projects that have a direct impact at improving system redundancy and reliability – generally a key factor ensuring service levels and reducing risk.

Water Nonrecurring Projects – Impact on Financial Plan				
Project/Project Drivers	Optimized Operations/ Reduced O&M Costs?	Service Level Reliability & Redundancy Improved?	SRF/DWRF Funded? (Lower Cost of Capital)	Avoided Future Capital Costs?
<b>CIP# 122003 - Water Works Park to Northeast Transmission Main</b> <ul style="list-style-type: none"> <li>Facilitates the rightsizing of the system.</li> <li>Reduction of facility in operation will result in decrease among all related O&amp;M categories costs.</li> </ul>	Yes (Water Master Plan Rightsizing and NEWTP Repurposing)	Yes	Yes	Yes
<b>CIP#122004 - 96-Inch Water Transmission Main Relocation and Isolation Valve Installations</b> <ul style="list-style-type: none"> <li>Relocates water main from closed landfill site.</li> <li>Provides additional isolation valves for more efficient service.</li> </ul>	Yes	Yes		
<b>CIP# 114002 - Springwells Water Treatment Plant Low-Lift and High-Lift Pumping Station Improvements</b> <ul style="list-style-type: none"> <li>Replace equipment and associated appurtenances placed in service from 1930 to 1958 (exceeded original design life).</li> <li>Serviceability hindered by lack of replacement parts.</li> </ul>	Yes	Yes		
<b>CIP# 115001 – Water Works Park Water Treatment Plant Yard Piping, Valves and Venturi Meters</b> <ul style="list-style-type: none"> <li>Replace equipment installed between 1875 and 1992, with the majority installed prior to 1960.</li> <li>Reconfigure piping network to be hydraulically efficient.</li> <li>Project must be coordinated with the WWP to Northeast transmission main project (CIP# 122003).</li> <li>New yard piping, valves, and water production flow meters will provide a reliable and redundant system.</li> </ul>	Yes (Water Master Plan Rightsizing and NNEWTP Repurposing)	Yes		

Water Nonrecurring Projects – Impact on Financial Plan				
Project/Project Drivers	Optimized Operations/ Reduced O&M Costs?	Service Level Reliability & Redundancy Improved?	SRF/DWRF Funded? (Lower Cost of Capital)	Avoided Future Capital Costs?
<b>CIP #122013 - 14 Mile Transmission Main Loop</b> <ul style="list-style-type: none"> <li>A single feed water transmission main serves over 250,000 people, including health care facilities, schools and businesses.</li> <li>This project provides a second transmission main loop to provide redundancy on this branch of the system.</li> <li>Operation of both mains in parallel will reduce the operating pressure on the existing main, which will lessen potential breaks on the existing main.</li> </ul>		Yes	Yes	
<b>CIP #116002 – Pennsylvania and Springwells Raw Water Supply Tunnel Improvements</b> <ul style="list-style-type: none"> <li>Four sections of the Pennsylvania, Springwells and Northeast Tunnels require repairs that range in length from 60 to 400 lineal feet.</li> <li>The repairs address cracking to prevent soil infiltration and potential loss of service for extensive portions of the GLWA water service area.</li> </ul>		Yes		
<b>CIP #111001 – Lake Huron Water Treatment Plant (LHWTP) - Low Lift, High Lift, and Filter Backwash Pumping System</b> <ul style="list-style-type: none"> <li>The 2015 Water Master Plan Update requires that the LHWTP's treatment and pumping capacity be aligned with the decreasing trend in overall system water demands.</li> <li>Addressing the age and condition of existing major plant pumping and related electrical equipment.</li> <li>The low-lift pumping equipment will be redesigned to operate as demand allows for current and forecasted water system demands.</li> <li>Piping and transfer pumps associated with the phosphoric acid tanks will also be replaced which are over 20 years old to maintain reliability and integrity.</li> </ul>	Yes (Water Master Plan Rightsizing)	Yes		

Water Nonrecurring Projects – Impact on Financial Plan				
Project/Project Drivers	Optimized Operations/ Reduced O&M Costs?	Service Level Reliability & Redundancy Improved?	SRF/DWRF Funded? (Lower Cost of Capital)	Avoided Future Capital Costs?
<b>CIP #132010 - West Service Center Pumping Station - Reservoir, Reservoir Pumping and Division Valve</b> <ul style="list-style-type: none"> <li>This project addresses poor condition of the existing reservoirs and the suction hydraulic issues of the reservoir pumping system.</li> <li>Construction of two new reservoirs and a new reservoir pump house will maintain water quality in the reservoirs and adequate reservoir pumping capacity at the WSC.</li> <li>Replacement of the flow-control division valve vault No. 3 will improve the transmission system's operational flexibility.</li> <li>The proposed capital improvements will also increase system reliability and reduce maintenance associated with the aging assets at the WSC.</li> </ul>	Yes  (Water Master Plan Rightsizing)	Yes		

Sewer Nonrecurring Projects – Impact on Financial Plan				
Project/Project Drivers	Optimized Operations / Reduced O&M Costs?	Service Level Reliability & Redundancy Improved?	SRF/DWRF Funded? (Lower Cost of Capital)	Avoided Future Capital Costs?
<b>CIP# 212008 - WRRF Aeration Improvements 1 and 2</b> <ul style="list-style-type: none"> <li>The Intermediate Lift Pumps convey primary effluent to the secondary bioreactors (aeration decks) have reached their useful life and are in need of replacement.</li> <li>Provides for increased in operational efficiency.</li> </ul>	Yes	Yes		
<b>CIP# 232002 - Freud &amp; Conner Creek Pump Station Improvements</b> <ul style="list-style-type: none"> <li>The primary objective is to improve performance of Connor Creek and Freud sewage pumping stations.</li> <li>Optimize the utilization of interconnected piping and operation between both pumping stations and the Connor Creek Retention and Treatment Basin.</li> </ul>		Yes		

Sewer Nonrecurring Projects – Impact on Financial Plan				
Project/Project Drivers	Optimized Operations / Reduced O&M Costs?	Service Level Reliability & Redundancy Improved?	SRF/DWRF Funded? (Lower Cost of Capital)	Avoided Future Capital Costs?
<b>CIP# 211007 - WRRF PS #2 Bar Racks Replacements and Grit Collection System Improvements</b> <ul style="list-style-type: none"> <li>Efficient, state-of-the-art, grit collection and pumping system and grit washing and classification to reduce truck traffic and cost of disposal.</li> <li>Improve the performance of all downstream processes, reduce maintenance costs and increase life of downstream equipment.</li> <li>New instrumentation and controls for operations and monitoring.</li> <li>Addresses plant operational inefficiencies that cause downtime for maintenance and risk permit violation.</li> </ul>	Yes	Yes		
<b>CIP# 222002 - Detroit River Interceptor (DRI) Evaluation and Rehabilitation</b> <ul style="list-style-type: none"> <li>The DRI conveys approximately 55% of the Detroit drainage and 36% of the total GLWA flow to the WRRF.</li> <li>A reliable and efficient DRI is a key factor in maintaining the wastewater conveyance system and mitigating problems such as Combined Sewer Overflow (CSO) discharges to the Detroit River, residential basement flooding, and preventing large sinkholes.</li> </ul>	Yes	Yes	Yes	
<b>CIP# 260600 - CSO Facilities Improvement Program</b> <ul style="list-style-type: none"> <li>The average age of the eight CSO Facilities is over 16 years. Each has some level of differing equipment and technology. This creates inefficient maintenance and operations</li> <li>Operational difficulties in utilizing basin equipment systems, including power, generators, flushing, pumping, gates, and screening have yielded lessons learned about which technologies work best and which do not.</li> <li>As GLWA executes the Wastewater Masterplan, major initiatives are being planned to maximize the use of existing CSO infrastructure. Maximizing the existing infrastructure is contingent upon infrastructure being in proper operational condition to accept additional flows and meet GLWA NPDES permit requirements.</li> <li>This project is complementary of the Strategic Asset Management Plan improvement initiatives and the new, upcoming Enterprise Asset Management System.</li> </ul>	Yes	Yes		
<b>CIP #260500 – CSO Outfall Rehabilitation</b> <ul style="list-style-type: none"> <li>Rehabilitation of the CSO outfalls is essential to properly discharge the combined sewer overflows to the receiving waters and to prevent sewer back up into the Conveyance System.</li> </ul>		Yes		

Sewer Nonrecurring Projects – Impact on Financial Plan				
Project/Project Drivers	Optimized Operations / Reduced O&M Costs?	Service Level Reliability & Redundancy Improved?	SRF/DWRF Funded? (Lower Cost of Capital)	Avoided Future Capital Costs?
<b>CIP# 222004 - Sewer System Infrastructure and Pumping Stations Improvements</b> <ul style="list-style-type: none"> <li>The Valve Remote (VR) Gates, In-System Storage Devices (ISDs), and backwater gates are operational elements in the collection system that help in minimizing the untreated overflows and maximizing the flows to the WRRF and CSO control facilities.</li> <li>These assets have reached their life expectancy and need rehabilitation based upon a needs assessment.</li> </ul>	Yes			
<b>CIP# 222001- Oakwood District Intercommunity Relief Sewer Modification at Oakwood District</b> <ul style="list-style-type: none"> <li>Improvements to include: 1) Clean &amp; Inspect Trunk Sewers, 2) Analysis and improvement of Oakwood Pump Station and Retention Treatment Basin (PS/RTB) operations, 3) Second influent sewer to Oakwood PS, and 4) Northwest Interceptor (NWI) Diversion for CSO Control</li> <li>Projects will be prioritized and validated as part of Wastewater Master Plan.</li> </ul>		Yes		

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## Section 7

# Authorizing Resolutions



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**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

## Great Lakes Water Authority Board of Directors

### General Certification

The undersigned hereby certifies that (i) the Resolution **2020-082** regarding **“Resolution Adopting the FY 2021 & FY 2022 Biennial Budget”** attached hereto is a true and complete copy of the Resolution duly passed by the Great Lakes Water Authority Board of Directors at a meeting held on March 11, 2020 at which meeting a quorum was present and remained throughout, (ii) the original thereof is on file in the records of the Great Lakes Water Authority Board of Directors, (iii) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act No. 267, Public Acts of Michigan, 1976, as amended) and (iv) Minutes of such meeting were kept and will be or have been made available as required thereby.

YES: Abe A. Munfakh, Jaye Quadrozzi, Brian Baker, Gary A. Brown, and  
Freman Hendrix

NO: None

ABSTAIN: None

EXCUSED: Beverly Walker-Griffea

Dated: March 11, 2020



By: Rechanda L. Willis  
Title: Executive Board Assistant



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Resolution Adopting the FY 2021 & FY 2022 Biennial Budget**

Agenda of: February 26, 2020, March 11, 2020  
Item No.: **2020-082**  
Amount: N/A

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

**FROM:** Sue F. McCormick  
Chief Executive Officer  
Great Lakes Water Authority

**DATE:** March 11, 2020

**RE:** Resolution Adopting the FY 2021 & FY 2022 Biennial Budget

**MOTION**

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer, The Board of Directors (Board) of the Great Lakes Water Authority (GLWA):

- 1) **Concludes the Public Hearing related to the FY 2021 and FY 2022 Biennial Budget held on February 26, 2020, and held open through March 11, 2020;**
- 2) **Pending public comment, adopts the attached resolution, 2020-082 adopting the FY 2021 and FY 2022 Biennial Budget for the GLWA;**
- 3) **Notes that the GLWA By-Laws Article X, Section 5, requires a super-majority affirmative vote of at least five (5) members of the Board is necessary for the approval of the operating budget; and**
- 4) Authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote and authorizes the CEO to take such other action as may be necessary to accomplish the intent of this vote.

**BACKGROUND**

The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the Regional Water and Sewer systems on January 1, 2016 (the “Effective Date”) pursuant to the Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015. Section 5.6 of the Lease Agreements require the Authority to adopt a two-year budget for the Regional Water and Sewer Systems that sets forth budgeted revenues and expenses for each such Fiscal Year.

**JUSTIFICATION**

The Board has received a proposed Budget for FY 2021 and FY 2022 which was reviewed at Audit Committee meetings on December 19, 2019, January 27, 2020, and February 21, 2020; Board meetings of January 8, 2020, January 22, 2020 and February 26, 2020; and Member Partner meetings on January 9, 2020, January 23, 2020 and February 21, 2020 as it relates to the proposed Schedule of Charges.

**BUDGET IMPACT**

This action establishes a budget for FY 2021 and FY 2022.

**COMMITTEE REVIEW**

The GLWA Audit Committee reviewed the budget and supplemental analysis at the meetings noted above.



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Great Lakes Water Authority**

**Resolution 2020 - 082**

**Resolution Adopting the Biennial FY 2021 & FY 2022 Budget**

By Board Member: Brian Baker

**WHEREAS** The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the regional water and sewer systems on January 1, 2016 (the “Effective Date”) pursuant to Water System and Sewer System Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015; and

**WHEREAS** In accordance with the by-laws of the GLWA, the Board shall adopt a two-year (Biennial) operating budget for the Regional Water and Sewer Systems; and

**WHEREAS** The Authority, through the terms of the Leases, committed to an annual increase in revenue requirement budget of no more than 4% through the fiscal year ending June 30, 2025; and

**WHEREAS** The GLWA Board is now adopting its fifth fiscal year budget demonstrating its ability to achieve and excel in meeting that commitment with a Regional Water System annual revenue requirement budget increase of 0.6% which equates to an average 1.9% increase in revenues from Water Service Charges and a Regional Sewer System annual revenue requirements budget increase of 1.3% which equates to an average 2.0% increase in revenues from Sewer Service Charges; and

**WHEREAS** The budgeted expenses for each such Fiscal Year shall equal the sum of the projected expenses and revenue requirements for the Regional Water System and the Regional Sewer System for each such Fiscal Year; and

**WHEREAS** The budgeted annual revenue requirements for the Regional Water System for FY 2021 is \$341,642,000 and for FY 2022 is \$351,891,400 as shown on “Schedule 1A – Water System Revenue Requirements” of the budget document; and

**WHEREAS** The budgeted annual revenue requirements for the Regional Sewer System for FY 2021 is \$486,751,300 and for FY 2022 is \$501,353,700 as shown on “Schedule 1B – Sewer System Revenue Requirements” of the budget document; and

- WHEREAS** The operations and maintenance budget for the Regional Water System for FY 2021 is \$137,127,300 and for FY 2022 is \$139,642,500 as shown on “Schedule 1A – Water System Revenue Requirements” of the budget document; and
- WHEREAS** The operations and maintenance budget for the Regional Sewer System for FY 2021 is \$184,946,100 and for FY 2022 is \$188,934,600 as shown on Schedule 1B – Sewer System Revenue Requirements” of the budget document; and
- WHEREAS** The amounts necessary to pay the principal of and interest on all Regional Water System bonds and to restore any reserves therefore established in the Master Bond Ordinance is \$184,938,100 for FY 2021 and \$185,670,700 for FY 2022 as shown on “Schedule 4 - Debt Service Coverage Calculations Consistent with the Master Bond Ordinance” of the budget document; and
- WHEREAS** The amounts necessary to pay the principal of and interest on all Regional Sewer System bonds and to restore any reserves therefore established in the Master Bond Ordinance is \$241,569,300 for FY 2021 and \$247,618,200 for FY 2022 as shown on “Schedule 4 - Debt Service Coverage Calculations Consistent with the Master Bond Ordinance” of the budget document; and
- WHEREAS** The amounts necessary to fund the annual water system capital expenditures of \$110,673,000 in FY 2021 and \$134,939,000 in FY 2022 for the capital improvement plan in accordance with the Schedule 5C - Water Construction Bond Fund budget with those capital amounts reflecting a 75% Capital Spending Ratio applied to FY 2021 and FY 2022 as shown in the proposed FY 2021 through FY 2025 Capital Improvement Plan; and
- WHEREAS** The amounts necessary to fund the annual sewer system capital expenditures of \$82,979,000 in FY 2021 and \$84,568,000 in FY 2022 for the capital improvement plan in accordance with Schedule 5D - Sewer Construction Bond Fund budget with those capital amounts reflecting a 75% Capital Spending Ratio applied to FY 2021 and FY 2022 as shown in the proposed FY 2021 through FY 2025 Capital Improvement Plan; and
- WHEREAS** The amounts necessary to fund the annual water system capital expenditures of \$17,892,000 in FY 2021 and \$13,760,200 in FY 2022 for capital outlay in accordance with the 5A - Water Improvement and Extension Fund budget; and
- WHEREAS** The amounts necessary to fund the annual sewer system capital expenditures of \$20,481,100 in FY 2021 and \$15,794,700 in FY 2022 for the capital outlay in accordance with the 5B - Sewer Improvement and Extension Fund budget; and
- WHEREAS** The GLWA Audit Committee began review of the budget and five-year financial plan document developed for FY 2021 through FY 2025 at its meeting on December 19, 2019; with updates at its meetings on January 27, 2020, and February 21, 2020; and



**WHEREAS** The GLWA Board conducted a public hearing on the proposed budget in accordance with the provisions of Public Act No. 43 of the Acts of the State Legislature of 1963 (“Budget Hearings of Local Governments”); and

**WHEREAS** A notice for the public hearing on the proposed budget scheduled for February 26, 2020 at 2:00 pm at the Water Board Building, 735 Randolph, Detroit, Michigan was published in The Detroit Legal News announcing a public hearing on the budget in addition to posting the notice and proposed budget on [glwater.org/financials](http://glwater.org/financials); and

**WHEREAS** The public hearing carried through March 11, 2020, at 1:00 p.m.; and

**WHEREAS** An affirmative vote of 5 Board Members is necessary for the adoption of this Resolution,

**NOW THEREFORE BE IT:**

**RESOLVED** That the GLWA Board conducted a public hearing on February 26, 2020, and continued that hearing on March 11, 2020, to receive public comment regarding the proposed budget for the Fiscal Years 2021 and 2022; and be it further

**RESOLVED** That the GLWA Board approves the budget for Fiscal Years 2021 and 2022; and be it finally

**RESOLVED** That the Chief Executive Officer, and the Chief Financial Officer/Treasurer are authorized to take such other action as may be necessary to accomplish the intent of this resolution.



**Note:** Amounts highlighted in yellow in the following tables are presented in the Biennial Budget Authorizing Resolution.

### Schedule 1A - Water System Revenue Requirements Budget

Water System Revenue Requirements	Current Year		Biennial Budget					
	FY 2020 Adopted	FY 2020 Estimated	FY 2021 Requested	FY 2021 \$ Change	FY 2021 % Change	FY 2022 Requested	FY 2022 \$ Change	FY 2022 % Change
<b>Revenues</b>								
11 Revenues from Charges	\$ 330,580,000	\$ 326,215,000	\$ 336,807,600	\$ 6,227,600	1.9%	\$ 348,085,700	\$ 11,278,100	3.3%
10.1 Non-Operating Revenue	9,084,200	5,732,100	4,834,400	(4,249,800)	-46.8%	3,805,700	(1,028,700)	-21.3%
<b>Total Revenues</b>	<b>339,664,200</b>	<b>331,947,100</b>	<b>341,642,000</b>	<b>1,977,800</b>	<b>0.6%</b>	<b>351,891,400</b>	<b>10,249,400</b>	<b>3.0%</b>
<b>Revenue Requirements</b>								
1 Operations & Maintenance (O&M) Expense	\$131,490,500	\$131,490,500	\$137,127,300	\$5,636,800	4.3%	\$139,642,500	\$2,515,200	1.8%
2 General Retirement System Legacy Pension	6,048,000	6,048,000	6,048,000	-	0.0%	6,048,000	-	0.0%
3 Debt Service Allocation	137,557,600	137,581,000	143,189,900	5,632,300	4.1%	141,151,000	(2,038,900)	-1.4%
4 General Retirement System Accelerated Pension	6,268,300	6,268,300	6,268,300	-	0.0%	6,268,300	-	0.0%
5 Water Residential Assistance Program Contribution	1,698,300	1,698,300	1,669,400	(28,900)	-1.7%	1,759,500	90,100	5.4%
6 Lease Payment to Local System I&E Account	22,500,000	22,500,000	22,500,000	-	0.0%	22,500,000	-	0.0%
7 Improvement & Extension Fund Allocation	30,125,500	22,385,000	23,962,500	(6,163,000)	-20.5%	33,683,700	9,721,200	40.6%
8 Operating Reserve Deposit	3,976,000	3,976,000	876,600	(3,099,400)	-78.0%	838,400	(38,200)	-4.4%
9 Extraordinary Repair & Replacement Deposit	-	-	-	-	0.0%	-	-	0.0%
<b>Annual Budgeted Revenue Requirements</b>	<b>\$ 339,664,200</b>	<b>\$ 331,947,100</b>	<b>\$ 341,642,000</b>	<b>\$ 1,977,800</b>	<b>0.6%</b>	<b>\$ 351,891,400</b>	<b>\$ 10,249,400</b>	<b>3.0%</b>

Budget Document Note (not included in Resolution): Revenues from Charges for FY 2021 above is comprised of the following

Regional System Wholesale Revenues – Suburban Wholesale Customers	\$314,252,200
Regional System Wholesale Revenues – Detroit Customers	22,555,400
<b>Total Revenues from Charges</b>	<b>\$336,807,600</b>

### Schedule 1B - Sewer System Revenue Requirements Budget

Sewer System Revenue Requirements	Current Year		Biennial Budget					
	FY 2020 Adopted	FY 2020 Estimated	FY 2021 Requested	FY 2021 \$ Change	FY 2021 % Change	FY 2022 Requested	FY 2022 \$ Change	FY 2022 % Change
<b>Revenues</b>								
11 Revenues from Charges	\$ 471,874,500	\$ 471,874,500	\$ 481,162,100	\$ 9,287,600	2.0%	\$ 496,004,300	\$ 14,842,200	3.1%
10.1 Non-Operating Revenue	8,730,800	5,051,500	5,589,200	(3,141,600)	-36.0%	5,349,400	(239,800)	-4.3%
<b>Total Revenues</b>	<b>480,605,300</b>	<b>476,926,000</b>	<b>486,751,300</b>	<b>6,146,000</b>	<b>1.3%</b>	<b>501,353,700</b>	<b>14,602,400</b>	<b>3.0%</b>
<b>Revenue Requirements</b>								
1 Operations & Maintenance (O&M) Expense	\$187,057,200	\$187,057,200	\$184,946,100	\$ (2,111,100)	-1.1%	\$188,934,600	\$3,988,500	2.2%
2 General Retirement System Legacy Pension	10,824,000	10,824,000	10,824,000	-	0.0%	10,824,000	-	0.0%
3 Debt Service	215,738,800	213,802,800	209,739,900	(5,998,900)	-2.8%	215,438,500	5,698,600	2.7%
4 General Retirement System Accelerated Pension	11,620,700	11,620,700	11,620,700	-	0.0%	11,620,700	-	0.0%
5 Water Residential Assistance Program Contribution	2,403,000	2,403,000	2,415,100	12,100	0.5%	2,506,800	91,700	3.8%
6 Lease Payment to Local System	27,500,000	27,500,000	27,500,000	-	0.0%	27,500,000	-	0.0%
7 Improvement & Extension Fund Allocation	25,461,600	23,718,300	39,705,500	14,243,900	55.9%	43,199,600	3,494,100	8.8%
8 Operating Reserve Deposit	-	-	-	-	0.0%	1,329,500	1,329,500	0.0%
9 Extraordinary Repair & Replacement Deposit	-	-	-	-	0.0%	-	-	0.0%
<b>Annual Budgeted Revenue Requirements</b>	<b>\$ 480,605,300</b>	<b>\$ 476,926,000</b>	<b>\$ 486,751,300</b>	<b>\$ 6,146,000</b>	<b>1.3%</b>	<b>\$ 501,353,700</b>	<b>\$ 14,602,400</b>	<b>3.0%</b>

Budget Document Note (not included in Resolution): Revenues from Charges for FY 2021 above is comprised of the following

Regional System Wholesale Revenues – Suburban Wholesale Customers	\$291,050,000
Regional System Wholesale Revenues – Detroit Customers	190,112,100
<b>Total Revenues from Charges</b>	<b>\$481,162,100</b>

**Note:** Amounts highlighted in yellow in the following tables are presented in the Biennial Budget Authorizing Resolution.

#### Schedule 1C - Combined Water and Sewer System Revenue Requirements Budget

Combined System Revenue Requirements	Current Year		Biennial Budget					
	FY 2020 Adopted	FY 2020 Estimated	FY 2021 Requested	FY 2021 \$ Change	FY 2021 % Change	FY 2022 Requested	FY 2022 \$ Change	FY 2022 % Change
<b>Revenues</b>								
11 Revenues from Charges	\$ 802,454,500	\$ 798,089,500	\$ 817,969,700	\$ 15,515,200	1.9%	\$ 844,090,000	\$ 26,120,300	3.2%
10.1 Non-Operating Revenue	17,815,000	10,783,600	10,423,600	(7,391,400)	-41.5%	9,155,100	(1,268,500)	-12.2%
<b>Total Revenues</b>	<b>820,269,500</b>	<b>808,873,100</b>	<b>828,393,300</b>	<b>8,123,800</b>	<b>1.0%</b>	<b>853,245,100</b>	<b>24,851,800</b>	<b>3.0%</b>
<b>Revenue Requirements</b>								
1 Operations & Maintenance (O&M) Expense	\$318,547,700	\$318,547,700	\$322,073,400	\$3,525,700	1.1%	\$328,577,100	\$6,503,700	2.0%
2 General Retirement System Legacy Pension	16,872,000	16,872,000	16,872,000	-	0.0%	16,872,000	-	0.0%
3 Debt Service	353,296,400	351,383,800	352,929,800	(366,600)	-0.1%	356,589,500	3,659,700	1.0%
4 General Retirement System Accelerated Pension	17,889,000	17,889,000	17,889,000	-	0.0%	17,889,000	-	0.0%
5 Water Residential Assistance Program Contribution	4,101,300	4,101,300	4,084,500	(16,800)	-0.4%	4,266,300	181,800	4.5%
6 Lease Payment to Local System	50,000,000	50,000,000	50,000,000	-	0.0%	50,000,000	-	0.0%
7 Improvement & Extension Fund Allocation	55,587,100	46,103,300	63,668,000	8,080,900	14.5%	76,883,300	13,215,300	20.8%
8 Operating Reserve Deposit	3,976,000	3,976,000	876,600	(3,099,400)	-78.0%	2,167,900	1,291,300	147.3%
9 Extraordinary Repair & Replacement Deposit	-	-	-	-	0.0%	-	-	0.0%
<b>Annual Budgeted Revenue Requirements</b>	<b>\$820,269,500</b>	<b>\$808,873,100</b>	<b>\$828,393,300</b>	<b>\$ 8,123,800</b>	<b>1.0%</b>	<b>\$853,245,100</b>	<b>\$ 24,851,800</b>	<b>3.0%</b>

#### Schedule 4 - Debt Service Coverage Calculations Consistent with the Master Bond Ordinance

Flow of Funds Basis		FY 2021 Water Fund	FY 2021 Sewer Fund	FY 21 Combined (Informational Only)	FY 2022 Water Fund	FY 2022 Sewer Fund	FY 22 Combined (Informational Only)
<b>Revenues</b>							
1	Regional System Wholesale Revenues	\$ 336,807,600	\$ 481,162,100	\$ 817,969,700	\$ 348,085,700	\$ 496,004,300	\$ 844,090,000
2	Local System Revenues	72,508,900	100,125,100	172,634,000	74,426,400	111,413,300	185,839,700
3	Miscellaneous Revenue (Local System)	6,149,100	5,634,800	11,783,900	6,161,600	5,636,300	11,797,900
4	Non-Operating Revenue (Regional System)	4,834,400	5,589,200	10,423,600	3,805,700	5,349,400	9,155,100
5	<b>Total Revenues</b>	<b>\$ 420,300,000</b>	<b>\$ 592,511,200</b>	<b>\$ 1,012,811,200</b>	<b>\$ 432,479,400</b>	<b>\$ 618,403,300</b>	<b>\$ 1,050,882,700</b>
<b>Revenue Requirements</b>							
<b>Operations &amp; Maintenance Expense</b>							
6	Regional System Wholesale Expenses	\$ 137,127,300	\$ 184,946,100	\$ 322,073,400	\$ 139,642,500	\$ 188,934,600	\$ 328,577,100
7	Local System Expenses	35,833,900	69,915,700	105,749,600	37,186,700	72,429,900	109,616,600
8	GRS Pension allocable to Regional System	6,048,000	10,824,000	16,872,000	6,048,000	10,824,000	16,872,000
9	GRS Pension allocable to Local System	4,272,000	2,856,000	7,128,000	4,272,000	2,856,000	7,128,000
10	<b>Total Operations &amp; Maintenance Expense</b>	<b>183,281,200</b>	<b>268,541,800</b>	<b>451,823,000</b>	<b>187,149,200</b>	<b>275,044,500</b>	<b>462,193,700</b>
11	<b>Net Revenues after Operations &amp; Maintenance Expense</b>	<b>\$ 237,018,800</b>	<b>\$ 323,969,400</b>	<b>\$ 560,988,200</b>	<b>\$ 245,330,200</b>	<b>\$ 343,358,800</b>	<b>\$ 588,689,000</b>
<b>Debt Service by Lien</b>							
12	Senior Lien Bonds	130,616,400	132,686,600	263,303,000	133,195,400	144,396,500	277,591,900
13	Second Lien Bonds	49,280,800	54,642,000	103,922,800	44,683,600	48,104,300	92,787,900
14	SRF Junior Lien Bonds	5,040,900	54,240,700	59,281,600	7,791,700	55,117,400	62,909,100
15	<b>Total Debt Service</b>	<b>\$ 184,938,100</b>	<b>\$ 241,569,300</b>	<b>\$ 426,507,400</b>	<b>\$ 185,670,700</b>	<b>\$ 247,618,200</b>	<b>\$ 433,288,900</b>
<b>Debt Service Coverage</b>							
16	Senior Lien Bonds (11)/(12)	1.81	2.44		1.84	2.38	
17	Second Lien Bonds (11)/[(12)+(13)]	1.32	1.73		1.38	1.78	
18	SRF Junior Lien Bonds (11)/(15)	1.28	1.34		1.32	1.39	

**Note:** Amounts highlighted in yellow in the following tables are presented in the Biennial Budget Authorizing Resolution.

### Schedule 5A - Water Improvement & Extension Fund

	Current Year	Biennial Budget	
Inflows & Outflows	FY 2020 Estimated	FY 2021 Requested	FY 2022 Forecast
<b>Water Improvement &amp; Extension Fund</b>			
Water System Revenue Transfers	\$22,385,000	\$23,962,500	\$33,683,700
Receipt of DWSD Shortfall Loan	-	-	-
Grant Revenues	-	-	-
Earnings on Investments, Net	-	-	-
Capital Outlay	(10,125,300)	(17,892,000)	(13,760,200)
Revenue Financed Capital - Strategic	(50,000,000)	(75,000,000)	(85,000,000)
Increase (Decrease) in I&E Reserves	(\$37,740,300)	(\$68,929,500)	(\$65,076,500)
Beginning Year Balance	264,584,900	226,844,600	157,915,100
<b>Projected Ending Balance</b>	<b>\$226,844,600</b>	<b>\$157,915,100</b>	<b>\$92,838,600</b>

### Schedule 5B - Sewer Improvement & Extension Fund

	Current Year	Biennial Budget	
Inflows & Outflows	FY 2020 Estimated	FY 2021 Requested	FY 2022 Forecast
<b>Sewer Improvement &amp; Extension Fund</b>			
Sewer System Revenue Transfers	\$23,718,300	\$39,705,500	\$43,199,600
Receipt of DWSD Shortfall Loan	19,288,300	19,288,300	8,705,000
Grant Revenues	-	-	-
Earnings on Investments, Net	-	-	-
Capital Outlay	(20,122,200)	(20,481,100)	(15,794,700)
Revenue Financed Capital - Strategic	(25,000,000)	(42,500,000)	(35,000,000)
Increase (Decrease) in I&E Reserves	(\$2,115,600)	(\$3,987,300)	\$1,109,900
Beginning Year Balance	96,648,700	94,533,100	90,545,800
<b>Projected Ending Balance</b>	<b>\$94,533,100</b>	<b>\$90,545,800</b>	<b>\$91,655,700</b>

**Note:** Amounts highlighted in yellow in the following tables are presented in the Biennial Budget Authorizing Resolution.

### Schedule 5C - Water Construction Bond Fund

	Current Year	Biennial Budget	
	FY 2020 Estimated	FY 2021 Requested	FY 2022 Forecast
<b>Inflows &amp; Outflows</b>			
<b>Water Construction Bond Fund</b>			
Bond Proceeds, Net	\$0	\$0	\$0
Earnings on Investments, Net	1,131,300	820,400	376,100
Transfer from Improvement & Extension Fund	50,000,000	75,000,000	85,000,000
Contributions In Aid of Construction	-	-	-
Grant Revenues (DWRP Loans)	12,898,300	12,365,800	16,590,200
Project Expenditures	(83,829,000)	(110,673,000)	(134,939,000)
Increase (Decrease) in Construction Funds	(\$19,799,400)	(\$22,486,800)	(\$32,972,700)
Beginning Year Balance	92,331,900	72,532,500	50,045,700
<b>Projected Ending Balance</b>	<b>\$72,532,500</b>	<b>\$50,045,700</b>	<b>\$17,073,000</b>

### Schedule 5D - Sewer Construction Bond Fund

	Current Year	Biennial Budget	
	FY 2020 Estimated	FY 2021 Requested	FY 2022 Forecast
<b>Inflows &amp; Outflows</b>			
<b>Sewer Construction Bond Fund</b>			
Bond Proceeds, Net	\$0	\$0	\$0
Earnings on Investments, Net	706,800	497,700	327,800
Transfer from Improvement & Extension Fund	25,000,000	42,500,000	35,000,000
Contributions In Aid of Construction	-	-	-
Grant Revenues (DWRP Loans)	40,505,000	33,200,000	15,112,000
Project Expenditures	(94,826,000)	(82,979,000)	(84,568,000)
Increase (Decrease) in Construction Funds	(\$28,614,200)	(\$6,781,300)	(\$34,128,200)
Beginning Year Balance	82,031,700	53,417,500	46,636,200
<b>Projected Ending Balance</b>	<b>\$53,417,500</b>	<b>\$46,636,200</b>	<b>\$12,508,000</b>



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

## Great Lakes Water Authority Board of Directors

### General Certification

The undersigned hereby certifies that (i) the Resolution **2020-083** regarding **“Resolution Regarding Approval of FY 2021 Schedule of Service Charges”** attached hereto is a true and complete copy of the Resolution duly passed by the Great Lakes Water Authority Board of Directors at a meeting held on March 11, 2020 at which meeting a quorum was present and remained throughout, (ii) the original thereof is on file in the records of the Great Lakes Water Authority Board of Directors, (iii) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act No. 267, Public Acts of Michigan, 1976, as amended) and (iv) Minutes of such meeting were kept and will be or have been made available as required thereby.

YES: Abe A. Munfakh, Jaye Quadrozzi, Brian Baker, Gary A. Brown, and  
Freman Hendrix

NO: None

ABSTAIN: None

EXCUSED: Beverly Walker-Griffea

Dated: March 11, 2020



By: Rechanda L. Willis  
Title: Executive Board Assistant





**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Resolution Regarding Approval of FY 2021 Schedule of Service Charges**

Agenda of: March 11, 2020  
Item No.: **2020-083**  
Amount: N/A

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

**FROM:** Sue F. McCormick  
Chief Executive Officer  
Great Lakes Water Authority

**DATE:** March 11, 2020

**RE:** **Resolution Regarding Approval of FY 2021 Schedule of Service Charges**

**MOTION**

Upon recommendation of Nicolette Bateson, Chief Financial Officer/Treasurer, the Board of Directors (Board) of the Great Lakes Water Authority, **approves the following actions, which require a supermajority affirmative vote of at least five (5) members of the Board, and the attached Resolution 2020-083** with an effective date of July 1, 2020:

- 1) FY 2021 wholesale water service schedule of charges;
- 2) FY 2021 wholesale sewer service schedule of charges;
- 3) FY 2021 City of Detroit allocated wholesale water revenue requirement of \$22,555,400, which is the net of \$43,255,400 gross revenue requirement less the Ownership Equity Credit of \$20,700,000 pursuant to the terms of the Water and Sewer Services Agreement (WSSA);
- 4) FY 2021 City of Detroit allocated wholesale sewer revenue requirement of \$190,112,100 which is the net of \$195,628,100 gross revenue requirement less the Ownership Equity Credit of \$5,516,000 in accordance with the WSSA;

- 5) FY 2021 City of Detroit allocated indirect water revenue requirement of \$46,830,400, in accordance with the Regional Water Supply System Lease;
- 6) FY 2021 City of Detroit allocated indirect sewer revenue requirement of \$36,245,300, in accordance with the Regional Sewage Disposal System Lease; and
- 7) authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

#### **BACKGROUND**

Pursuant to the water system and sewer system leases signed between the Great Lakes Water Authority (GLWA/Authority) and the City of Detroit, the GLWA began operations of the regional water supply and sewage disposal system on January 1, 2016. Consistent with the terms of those leases, the Authority shall, for each fiscal year fix and approve rates and charges to its customers in an amount that is expected to produce revenues sufficient to satisfy the Authority revenue requirement. The attached, proposed schedule of charges meets that requirement.

Leading up to this charge recommendation, staff presented the proposed FY 2021 and 2022 Biennial Budget and five-year financial plan for FY 2021 to 2025 to the Board at its meeting on January 8, 2020 and an analysis of proposed water and sewer system charges at its January 22, 2020 meeting. A Public Hearing was opened for the FY 2021 Water Service Charges and Sewer Service Charges on February 26, 2019 and will be held open until the FY 2021 charges are approved.

#### **JUSTIFICATION**

Great Lakes Water Authority ("GLWA") management and its consultant, The Foster Group, developed a Schedule of Water Service Charges and Sewer Service Charges for FY 2021 including the City of Detroit Revenue Requirement for the water and sewer systems. These charges support the proposed FY 2021 water system revenue requirements budget and the proposed FY 2021 sewer system revenue requirements, respectively. The FY 2021 water and sewer revenue requirements reflect GLWA's commitment to not only work within, but perform beyond, the four percent revenue requirement budget limitation outlined in the September 9, 2014 Memorandum of Understanding that resulted in the establishment of the Great Lakes Water Authority. The proposed wholesale customer charges and revenue requirements for the City of Detroit are the result of significant customer engagement in the charge setting process to evaluate the appropriate allocation of revenue requirements.



**BUDGET IMPACT**

The recommended FY 2021 Schedule of Water Service Charges and Sewer Service Charges as presented produces the necessary revenues to fund the FY 2021 Water System and Sewer System Budget.

**COMMITTEE REVIEW**

The Audit Committee has reviewed the FY 2021 financial plan, including charge setting matters, at its meetings on December 19, 2019, January 17, 2020 and February 21, 2020.

**Proposed FY 2021 Water Charges**

The proposed FY 2021 water service charges reflect the approved Water BUDGET increase of 0.6 percent from FY 2020. As a result of the Contract Alignment Process (CAP) that was undertaken in 2019, the FY 2021 Units of Service were virtually unchanged from FY 2020. For FY 2021 GLWA is anticipating reduced investment earnings and a reduction in estimated sales volumes as compared to FY 2020, **therefore the average water system charges increase is proposed to be 3.2 percent.**

**Proposed FY 2021 Sewer Charges**

The proposed FY 2021 sewer service charges reflect the proposed Sewer BUDGET increase of 1.3 percent from FY 2020. For FY 2021 GLWA is anticipating reduced investment earnings as compared to FY 2020, **therefore the average sewer system charges increase is proposed to be 2.0 percent.**

**Coordination with DWSD's Budget**

Under the terms of the lease agreements and related financial commitments, key inputs are required from DWSD. An analysis of the DWSD budget inputs and related reconciliation based upon some of the changes above is also attached.

**SHARED SERVICES IMPACT**

This item does not impact the Shared Services Agreement between the GLWA and the City of Detroit.



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Great Lakes Water Authority**

**Resolution 2020-083**

**Approval of FY 2021 Schedule of Service Charges**

By Board Member: Gary Brown

**Whereas** The Great Lakes Water Authority (“GLWA”) management and its consultant, The Foster Group, have developed the attached Schedule of Water Service Charges and Sewer Service Charges for FY 2021, including the direct and indirect City of Detroit Revenue Requirements for the water and sewer systems, to support the FY 2021 water system and sewer system revenue requirements budget with an effective date of July 1, 2020; and

**Whereas** The FY 2021 water and sewer revenue requirements reflect GLWA’s commitment to work within the four percent limitation outlined in the Memorandum of Understanding; and

**Whereas** A Public Hearing was held for the Water Service Charges and Sewer Service Charges proposed by the GLWA for FY 2021 on February 26, 2020 at 2:00 p.m.; and

**NOW THEREFORE BE IT:**

**RESOLVED** The Great Lakes Water Authority Board approves the proposed:

- 1) FY 2021 wholesale water service schedule of charges;
- 2) FY 2021 wholesale sewer service schedule of charges;
- 3) FY 2021 City of Detroit allocated wholesale water revenue requirement of \$22,555,400, which is the net of \$43,255,400 gross revenue requirement less the Ownership Equity Credit of \$20,700,000 pursuant to the terms of the Water and Sewer Services Agreement (WSSA);
- 4) FY 2021 City of Detroit allocated wholesale sewer revenue requirement of \$190,112,100 which is the net of \$195,628,100 gross revenue requirement less the Ownership Equity Credit of \$5,516,000 in accordance with the WSSA;

- 5) FY 2021 City of Detroit allocated indirect water revenue requirement of \$46,830,400, in accordance with the Regional Water Supply System Lease;
- 6) FY 2021 City of Detroit allocated indirect sewer revenue requirement of \$36,245,300, in accordance with the Regional Sewage Disposal System Lease; and

**RESOLVED** That the Chief Executive Officer, and the Chief Financial Officer/Treasurer are authorized to take such other action as may be necessary to accomplish the intent of this vote.

Great Lakes Water Authority  
Approved FY 2021 Water Supply System Allocated Revenue Requirements and Service Charges

Line No.	Customer	Fixed Monthly Charge (a) \$/mo	Commodity Charge (a) \$/Mcf	Annual Revenue Req'ts \$
1	Allen Park	122,400	7.80	2,448,300
2	Almont Village	12,200	10.52	244,200
3	Ash Township	42,400	8.28	848,300
4	Belleville	16,000	9.77	320,000
5	Berlin Township	37,400	11.41	748,800
6	Brownstown Township	187,400	10.82	3,748,700
7	Bruce Twp	15,900	68.40	318,700
8	Burtchville Twp	16,800	18.67	336,000
9	Canton Township	527,600	12.17	10,552,100
10	Center Line	23,900	6.23	478,600
11	Chesterfield Township	217,600	10.33	4,352,200
12	Clinton Township	390,100	7.79	7,801,400
13	Commerce Township	183,400	14.50	3,668,400
14	Dearborn	539,900	7.24	10,797,800
15	Dearborn Heights	189,200	7.70	3,783,300
16	Eastpointe	80,600	6.15	1,611,700
17	Ecorse	78,800	4.31	1,575,700
18	Farmington	52,300	9.24	1,046,100
19	Farmington Hills	460,900	10.20	9,218,900
20	Ferndale	52,300	6.19	1,045,000
21	Flat Rock	70,500	9.18	1,410,400
22	Flint (b)	572,300	8.76	11,445,300
23	Fraser	63,200	8.51	1,263,000
24	Garden City	87,900	8.30	1,757,500
25	Gibraltar	17,300	8.33	345,800
26	Grosse Ile Township	57,300	11.65	1,146,700
27	Grosse Pt. Park	76,700	11.04	1,533,200
28	Grosse Pt. Shores	33,900	13.60	677,400
29	Grosse Pt. Woods	73,700	9.13	1,474,400
30	Hamtramck	40,900	5.39	817,200
31	Harper Woods	42,500	6.76	850,800
32	Harrison Township	79,100	6.82	1,582,400
33	Hazel Park	38,200	5.98	764,200
34	Highland Park	60,300	4.61	1,206,300
35	Huron Township	76,000	10.09	1,520,200
36	Imlay City	74,600	13.52	1,492,800
37	Imlay Twp	800	39.44	16,700
38	Inkster	63,800	5.45	1,276,400
39	Keego Harbor	15,500	12.35	309,500
40	Lapeer	80,300	11.84	1,605,400
41	Lenox Township	15,300	8.21	306,000
42	Lincoln Park	115,900	6.12	2,317,900
43	Livonia	594,800	9.92	11,896,300
44	Macomb Township	653,000	16.03	13,059,300
45	Madison Heights	99,400	6.82	1,987,500
46	Mayfield Twp	2,500	23.10	49,400
47	Melvindale	33,600	6.23	671,000
48	New Haven, Village of	20,500	6.74	409,800
49	N O C W A	1,143,600	10.22	22,871,800
50	Northville	46,100	11.72	922,300
51	Northville Township	290,100	16.95	5,802,200
52	Novi	468,800	12.69	9,375,800
53	Oak Park	71,700	6.03	1,433,600
54	Oakland Co. Drain Comm.	4,300	3.29	86,800
55	Plymouth	55,500	10.24	1,110,300
56	Plymouth Township	229,900	11.31	4,597,800
57	Redford Township	165,300	8.04	3,305,200
58	River Rouge	34,800	7.54	696,700
59	Riverview	45,000	7.82	899,100
60	Rockwood	14,400	11.56	287,200

Great Lakes Water Authority  
Approved FY 2021 Water Supply System Allocated Revenue Requirements and Service Charges

Line No.	Customer	Fixed Monthly Charge (a) \$/mo	Commodity Charge (a) \$/Mcf	Annual Revenue Req'ts \$
61	Romeo	13,000	18.18	259,600
62	Romulus	216,400	8.23	4,328,700
63	Roseville	138,700	5.91	2,774,800
64	Royal Oak Township	10,500	7.15	210,400
65	S O C W A	1,192,900	7.58	23,857,100
66	Shelby Township	724,600	15.15	14,491,100
67	South Rockwood	6,000	9.92	119,600
68	Southgate	114,600	7.90	2,291,500
69	St. Clair County-Greenwood Township	24,000	12.83	480,400
70	St. Clair Shores	158,300	6.68	3,165,400
71	Sterling Heights	785,000	10.99	15,700,400
72	Sumpter Township	34,500	9.64	689,600
73	Sylvan Lake	12,100	15.11	241,900
74	Taylor	241,400	7.24	4,827,900
75	Trenton	86,700	8.10	1,734,100
76	Troy	700,800	12.14	14,015,000
77	Utica	29,800	9.34	596,800
78	Van Buren Township	177,200	11.14	3,543,300
79	Walled Lake	41,700	10.64	833,500
80	Warren	530,000	6.89	10,599,900
81	Washington Township	116,900	12.49	2,337,200
82	Wayne	159,500	13.38	3,190,700
83	West Bloomfield Township	538,000	16.29	10,760,600
84	Westland	321,700	7.80	6,433,100
85	Wixom	127,600	13.73	2,551,500
86	Woodhaven	86,700	11.91	1,733,500
87	Ypsilanti Comm Util Auth	540,900	8.76	10,817,300
88	Total Wholesale Contract Customers			322,110,700
89	Adjustment to Flint Revenue Requirement for KWA Debt Service			(6,652,200)
90	Adjustment for Highland Park Bad Debt			(1,206,300)
91	<b>Net Requirement from Wholesale Charges (agrees with GLWA Budget "Schedule 3A")</b>			<b>314,252,200</b>
<b>Detroit Customer Class - \$</b>				
92	<b>Wholesale</b> Revenue Requirement (c)			43,255,400
93	less: Ownership Benefit per Lease			(20,700,000)
94	<b>Net Wholesale</b> Revenue Requirement			22,555,400
95	<b>Indirect Retail</b> Revenue Requirements (d)			46,830,400
96	less: Use of Lease Payment for Debt Service			(8,278,300)
97	<b>Net Indirect Retail</b> Revenue Requirements (d)			38,552,100
98	Subtotal Subject to GLWA Board Approval (94) + (97)			61,107,500
99	<b>Direct Retail</b> Revenue Requirements (e)			40,105,900
100	<b>Total Local System Revenue Requirement (97) + (99)</b>			78,658,000
101	<b>Net Requirement from Detroit Customer Class (agrees with GLWA Budget "Schedule 3A")</b>			<b>101,213,400</b>

(a) Reflects charges approved March 11, 2020.

(b) Net fixed monthly charge will include \$554,400 monthly credits for KWA debt service.

(c) Wholesale revenue requirements for the Detroit Customer Class.

(d) Local System revenue requirements related to Master Bond Ordinance (local debt service, etc.)

(e) Local System operating expenses (net of shared services reimbursement) and I&E deposit. Not Subject to GLWA Board approval.

Great Lakes Water Authority  
Approved FY 2021 Sewage Disposal System Allocated Revenue Requirements and Service Charges

	Fixed Monthly Charge \$/mo	Annual Revenue Requirement \$
<u>Suburban Wholesale</u>		
1 OMID	6,400,000	76,799,400
2 Rouge Valley	4,575,900	54,910,700
3 Oakland GWK	3,821,000	45,851,800
4 Evergreen Farmington	2,944,100	35,329,000
5 SE Macomb San Dist	2,097,000	25,164,500
6 Dearborn	1,646,200	19,754,700
7 Grosse Pointe Farms	232,300	2,787,700
8 Grosse Pointe Park	153,000	1,835,600
9 Melvindale	129,600	1,554,600
10 Farmington	97,200	1,166,900
11 Center Line	87,300	1,047,900
12 Allen Park	72,200	866,300
13 Highland Park	478,900	5,747,300
14 Hamtramck	337,000	4,044,200
15 Grosse Pointe	75,400	904,300
16 Harper Woods	18,500	222,100
17 Redford Township	22,300	267,500
18 Wayne County #3	4,300	51,500
19 <b>Subtotal "Regional Wholesale Revenues from Charges"</b>		278,306,000
20 Industrial Specific Revenues		14,038,200
21 <b>Subtotal "Regional Wholesale Revenues from Charges"</b>		292,344,200
22 less: Highland Park Bad Debt		(1,294,200)
23 <b>Total "Regional Wholesale Revenues" (a)</b>		291,050,000
<i>* Wholesale charges will be effective July 1, 2020</i>		
<b>Detroit Customer Class - \$</b>		
24 <u>Wholesale</u> Revenue Requirement (c)		195,628,100
25 less: Ownership Benefit per Lease		(5,516,000)
26 <u>Net Wholesale</u> Revenue Requirement		190,112,100
27 <u>Indirect Retail</u> Revenue Requirements (d)		36,245,300
28 less: Use of Lease Payment for Debt Service		(3,257,200)
29 <u>Net Indirect Retail</u> Revenue Requirements (d)		32,988,100
30 Subtotal Subject to GLWA Board Approval (26) + (29)		223,100,200
31 <u>Direct Retail</u> Revenue Requirements (e)		72,771,700
32 <b>Total Local System Revenue Requirement (29) + (31)</b>		105,759,800
33 <b>Net Requirement from Detroit Customer Class (a)</b>		295,871,900

(a) Agrees with GLWA Budget "Schedule 3A"

(b) Reserved

(c) Wholesale revenue requirements for the Detroit Customer Class.

(d) Local System revenue requirements related to Master Bond Ordinance (local debt service, etc.)

(e) Local System operating expenses (net of shared services reimbursement) and I&E deposit. Not Subject to GLWA Board approval.



Great Lakes Water Authority  
Approved FY 2021 Industrial Specific Retail Sewer Charges

Industrial Waste Control Charges	
Meter Size - inches	Charge \$/mo
5/8	3.45
3/4	5.18
1	8.63
1-1/2	18.98
2	27.60
3	50.03
4	69.00
6	103.50
8	172.50
10	241.50
12	276.00
14	345.00
16	414.00
18	483.00
20	552.00
24	621.00
30	690.00
36	759.00
48	828.00

Pollutant Surcharges	
Pollutant	Charge \$/lb
BIOCHEMICAL OXYGEN DEMAND (BOD) for concentrations > 275 mg/l	<b>0.502</b>
TOTAL SUSPENDED SOLIDS (TSS) for concentrations > 350 mg/l	<b>0.51</b>
PHOSPHORUS (P) for concentrations > 12 mg/l	<b>7.519</b>
FATS, OIL AND GREASE (FOG) for concentrations > 100 mg/l	<b>0.484</b>
SEPTAGE DISPOSAL FEE Per 500 gallons of disposal	<b>48.00</b>



Great Lakes Water Authority  
Proposed FY 2021 Industrial Specific Retail Sewer Charges

Industrial Waste Control Charges- Administration Only	
Meter Size - inches	Charge \$/mo
5/8	0.86
3/4	1.30
1	2.16
1-1/2	4.75
2	6.90
3	12.51
4	17.25
6	25.88
8	43.13
10	60.38
12	69.00
14	86.25
16	103.50
18	120.75
20	138.00
24	155.25
30	172.50
36	189.75
48	207.00



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

## Great Lakes Water Authority Board of Directors

### General Certification

The undersigned hereby certifies that (i) the Resolution **2020-056** regarding "**Resolution Regarding Approval of FY 2021 through FY 2020 Capital Improvemet Plan**" attached hereto is a true and complete copy of the Resolution duly passed by the Great Lakes Water Authority Board of Directors at a meeting held on February 26, 2020 at which meeting a quorum was present and remained throughout, (ii) the original thereof is on file in the records of the Great Lakes Water Authority Board of Directors, (iii) the meeting was conducted, and public notice thereof was given, pursuant to and in full compliance with the Open Meetings Act (Act No. 267, Public Acts of Michigan, 1976, as amended) and (iv) Minutes of such meeting were kept and will be or have been made available as required thereby.

YES: Abe A. Munfakh, Beverly Walker-Griffea, Jaye Quadrozzi, Brian Baker, Gary A. Brown, and Freman Hendrix

NO: None

ABSTAIN: None

EXCUSED: None

Dated: February 26, 2020



By: Revia C. Bowie  
Title: Board Assistant



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Resolution Regarding Approval of FY 2021 through FY 2025 Capital Improvement Plan**

Agenda of: February 26, 2020  
Item No.: **2020-056**

**TO:** The Honorable  
Board of Directors  
Great Lakes Water Authority

**FROM:** Sue F. McCormick  
Chief Executive Officer  
Great Lakes Water Authority

**DATE:** February 12, 2020

**RE:** **Resolution Regarding Approval of FY 2021 through FY 2025 Capital Improvement Plan**

**MOTION**

Upon recommendation of Suzanne Coffey, Chief Planning Officer, The Board of Directors for the Great Lakes Water Authority (GLWA), **Adopts the resolution supporting the Capital Improvement Plan (CIP) for Fiscal Years 2021 through 2025 and the Chief Executive Officer to approve the five year Capital Improvement Plan (CIP) for Fiscal Years 2021 through 2025, noting an affirmative vote of at least five (5) Board Members is necessary for approval of this Motion;** and also authorizes the Chief Executive Officer to take such other action as may be necessary to accomplish the intent of this vote.

**JUSTIFICATION**

A capital improvement plan addresses the following objectives.

1. Identifies an organization's priorities within available resources over a multiple year period.
2. Communicates the scope, funding, and timing to stakeholders, coordinating agencies, investors, and the public.

3. Encompasses stakeholder engagement in its development.
4. Aligns with strategic objectives of the organization, including effective capital delivery and regulatory compliance at the lowest cost of capital investment.

#### **BUDGET IMPACT**

The FY 2021 through FY 2025 Capital Improvement Plan identifies \$935.4 million of water system capital improvements and \$739.4 million of sewer system improvements. Given that GLWA adopts a two-year budget, it is recommended that FY 2021 and FY 2022 be designated as a two-year capital budget for purposes of carrying out the CIP that coincides with GLWA adopted biennial operating budget (also referenced as the revenue requirement budget).

#### **COMMITTEE REVIEW**

Capital Planning Committee Reviewed Preliminary Drafts of the CIP

October 15, 2019

December 17, 2019

Full Board Reviewed Final Proposed CIP and Referred to Capital Planning Committee

January 22, 2020

The November 19, 2019 Capital Planning Committee Meeting was canceled, the content was addressed during December 17<sup>th</sup> committee meeting.

#### **APPROVAL REQUIRED**

The Articles of Incorporation of the Great Lakes Water Authority requires an affirmative vote of at least five (5) members to approve the 5-year Capital Improvement Plan.



**Board of Directors**  
735 Randolph Street, Suite 1900  
Detroit, Michigan 48226  
(313) 224-4785

**Great Lakes Water Authority**

**Resolution 2020 - 056**

**Adopting the FY 2021 through FY 2025 Capital Improvement Plan**

By Board Member: Freman Hendrix

- Whereas** The Great Lakes Water Authority (“GLWA” or the “Authority”) assumed the operation of the regional water and sewer systems on January 1, 2016 (the Effective Date”) pursuant to the Lease Agreements between the GLWA and the City of Detroit dated June 12, 2015; and
- Whereas** During the term of the Lease Agreements, the Authority shall be entitled to make such rehabilitation of and replacements and improvements to the Leased Water and Sewer Facilities as it determines to be necessary to keep the Leased Facilities in compliance with performance standards; and
- Whereas** In connection with the terms of the Lease Agreements, the Authority shall for each Fiscal Year prepare and approve a Capital Improvement Plan, which shall set forth the improvements to the Leased Sewer Facilities that the Authority proposes to undertake during the next five (5) Fiscal Years; and
- Whereas** The GLWA Planning Services staff facilitated the preparation of the FY 2021 through FY 2025 Capital Improvement Plan which encompassed engineering and operating unit personnel, business case evaluation preparation, scoring by the Capital Improvement Plan Development Review Committee members for each system, customer engagement, and review by the GLWA Board Capital Planning Committee on October 15, 2019, December 17, 2019 and February 25, 2020; and
- Whereas** The FY 2021 through FY 2025 Capital Improvement Plan and related financial plan has been prepared within the boundaries establish by the GLWA’s long-term financial strategy emphasizing effective capital delivery at the lowest cost of capital; and
- Whereas** The FY 2021 through FY 2025 Capital Improvement Plan identifies \$935.4 million of water system capital improvements and \$739.4 million of sewer system improvements; and

- Whereas** In accordance with its Articles of Incorporation, the GLWA is required to adopt a two year operating budget; and
- Whereas** The first two years of the Capital Improvement Program are hereby adopted as a capital budget to coincide with the two year operating budget; and
- Whereas** An affirmative vote of 5 Board Members is necessary for the adoption of this Resolution.

## Section 8

# Acronyms & Glossary



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## Acronyms

<b>AMR</b>	- Automatic Meter Reading
<b>AMP</b>	- Asset Management Plan
<b>BCE</b>	- Business Case Evaluation
<b>BDF</b>	- Biosolids Dryer Facility
<b>BI</b>	- Business Intelligence
<b>CACO</b>	- Chief Administrative and Compliance Officer
<b>CAP</b>	- Contract Alignment Process
<b>CIP</b>	- Capital Improvement Plan
<b>CMMS</b>	- Computerized Maintenance Management System
<b>COD</b>	- City of Detroit
<b>COF</b>	- Central Offloading Facility
<b>COOP</b>	- Continuity of Operations Planning
<b>CSO</b>	- Combined Sewer Overflow
<b>CWRF</b>	- Clean Water Revolving Fund
<b>DMT</b>	- Detroit Marine Terminal
<b>DWRF</b>	- Drinking Water Revolving Fund
<b>DWSD</b>	- Detroit Water & Sewerage Department
<b>EAM</b>	- Enterprise Asset Management
<b>EGLE</b>	- Michigan Department of Environment, Great Lakes, and Energy
<b>ELT</b>	- Executive Leadership Team
<b>ERP</b>	- Enterprise Resource Planning
<b>EUM</b>	- Effective Utility Management
<b>FTE</b>	- Full-time equivalent
<b>FY</b>	- Fiscal Year
<b>GIS</b>	- Geographic Information System
<b>GLWA</b>	- Great Lakes Water Authority

## Acronyms

<b>GRS</b>	City of Detroit General Retirement System
<b>HR</b>	Human Resources
<b>HVAC</b>	Heating, ventilation and air conditioning
<b>I&amp;E Fund</b>	Improvement & Extension Fund
<b>IPP</b>	Industrial Pretreatment Program
<b>IT</b>	Information Technology
<b>MBO</b>	GLWA Master Bond Ordinance
<b>MDEQ</b>	Michigan Department of Environmental Quality (see EGLE)
<b>MOU</b>	Memorandum of Understanding
<b>NESPS</b>	Northeast Sewer Pump Station
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>O&amp;M</b>	Operations & Maintenance
<b>OD</b>	Organizational Development
<b>OMID</b>	Oakland Macomb Interceptor Drain Drainage District
<b>OPEB</b>	Other post-employment benefits
<b>OWI</b>	One Water Institute
<b>PA94</b>	Michigan Public Act 94
<b>PM</b>	Preventative Maintenance
<b>POA</b>	Plan of adjustment (bankruptcy)
<b>SAMP</b>	Strategic Asset Management Plan
<b>SAW</b>	Stormwater, Asset Management, and Wastewater
<b>SCADA</b>	Supervisory Control and Data Acquisition system
<b>SRF</b>	State Revolving Fund
<b>TSIP</b>	Transmission System Pipe Integrity Program
<b>UAAL</b>	Unfunded Accrued Actuarial Liability
<b>USS</b>	Units of Service Study

## Acronyms

**VFD** – Variable Frequency Drive

**WATF** – Wastewater Analytics Task Force

**WAM** – Work Order and Asset Management software

**WAMR** – Wholesale Automatic Meter Reading

**WRAP** - Water Residential Assistance Program

**WRRF** - Wastewater Resource Recovery Facility

**WSSA** – Water and Sewer Services Agreement

**WWTP** – Wastewater Treatment Plant

## Glossary

**BC Notes** – Financial Recovery Bonds issued by the City of Detroit to fund pension obligation certificates and post-retirement health benefits.

**Biennial Budget** – The practice of preparing and adopting a budget for two-year periods.

**BigTime** – is custom-built PSA software for accountants, architects, engineers, and other professional services firms

**Biosolids Dryer Facility (BDF)** - Facility converting wastewater sludge into marketable pelletized biosolids product, which is beneficially reused as sustainable fertilizer.

**Bond & Interest Redemption Fund** – A requirement of the Master Bond Ordinance to set up bank accounts to provide for payment of principal and interest on bonded debt. Monthly deposits to the bank accounts are made to reflect 1/12th of the annual debt service requirement.

**BS&A** – Financial accounting software designed specifically for municipalities currently being used by GLWA.

**Capital Improvement Program (CIP)** - A short-range plan, usually four to ten years, which identifies capital projects and equipment purchases, provides a planning schedule and identifies options for financing the plan.

**Capital Outlay Plan** - Assets that are purchased and are either above the dollar threshold for capitalizing on the financial statements (i.e. over \$5,000) or are an asset that should be tagged and tracked for internal control purposes. In both instances, they have an estimated useful life of more than a year.

**Capital Program Allocation** - Portion of operations and maintenance expenses that are properly allocable to capital program management overhead.

**Capturis** – A multi-site utility information management system.

**Centralized Services** - Functions that support all Great Lakes Water Authority.

**Ceridian** – Human resources software currently used by GLWA for payroll processing and benefits

**Clean Water Revolving Fund (CWRP)** – Michigan's Water Pollution Control Revolving fund, better known as the State Revolving Fund (SRF) is a low-interest loan financing program that assists qualified local municipalities with the construction of needed water pollution control facilities. Interest rates are usually between 2% and 2.5% and are repaid over 20-30 years.

**Construction Bond Fund** – Used to account for funds generated from proceeds of revenue bond issues and reserved for capital improvements. These are not part of the regular flow of funds and cannot be used for any purposes other than capital improvements.

## Glossary

**Contract Alignment Process (CAP)** - As part of strategy to achieve water charge stability member partners asked for alignment of the model contract reopener to a common schedule to minimize the annual charge volatility created by changing contract demands which come as a result of the model contract amendments. As part of the 2017 and 2018 reopener meetings, the model contract reopener schedule within each member partner contract was amended to change the next regularly scheduled reopener date to 2022 and every 4 years thereafter.

**Contractual Transition Services** - Staff positions which are filled with outside contractors until they can be permanently filled.

**Drinking Water Revolving Fund (DWRF)** - A program designed to assist water suppliers in satisfying the requirements of the Safe Drinking Water Act by offering low-interest to eligible water suppliers to finance qualified water supply system projects. Interest rates are usually between 2% and 2.5% and are repaid over 20-30 years.

**DTE** - DTE Energy is a utility providing electric and gas service to GLWA.

**Enterprise Resource Planning (ERP)** - A suite of integrated software applications that is used to collect store, manage, and interpret data from many different business activities.

**Extraordinary Repair and Replacement Reserve Fund** - Serves as a contingency fund for unanticipated capital improvements in excess of \$1 million. Must be maintained at 15% of annual operating expense.

**Fiscal Year** - A twelve-month period that an organization uses for budgeting, forecasting and reporting. The Authority fiscal year begins on July 1<sup>st</sup> and ends the following June 30<sup>th</sup>.

**Full-Time Equivalent (FTE)** - A unit of measure used for staff positions. An FTE of 1.0 is equivalent to 2,080 working hours per year.

**General Retirement System (GRS)** - The City of Detroit pension plan that provides retirement, disability and survivor benefits to the plan members. Plan members include the City of Detroit active employees, retirees and beneficiaries. A Board of Trustees administers the General Retirement System. The Board of Trustees consists of five elected active employees, one elected retiree, a non-member individual, and three ex-officio trustees.

**GLWA Member Partners** - Includes GLWA team members, board members, water and wastewater partners, associated stakeholders, elected officials, consultants and regulatory agencies.

**Improvement & Extension Fund (I&E)** - Used to account for funds for revenue finance capital improvements, extensions or betterment of the Water and Wastewater Systems.

**Innovyze** - A software vendor that provides hydraulic modeling and asset management analysis software for water and wastewater systems.

## Glossary

**Local Sewer System** - That portion of the Sewer System that provides sewer service directly to Retail Sewer Customers, which consists of the Detroit Local Sewer Facilities and is serviced by the Detroit Water Sewerage Department per the Water and Sewer Services Agreement.

**Local Water System** - That portion of the Water System that provides water service directly to the Retail Water Customers, which consists of the Detroit Local Water Facilities and is serviced by the Detroit Water Sewerage Department per the Water and Sewer Services Agreement.

**Master Bond Ordinance (MBO)** – An ordinance which provided for the assumption of the outstanding bonds issued for the water and sewer systems of the City of Detroit, for the issuance of revenue bonds to improve the leased water and sewer systems, to provide for the collection of revenues for the operation and maintenance, debt services and other matters related to the leased water and sewer systems.

**Michigan Department of Environment, Great Lakes, and Energy (EGLE)** - An agency of the state of Michigan. Formally known as the Michigan Department of Environmental Quality (MDEQ) until April 22, 2019, the department was created in 1995. Its mission statement says that it "promotes wise management of Michigan's air, land, and water resources to support a sustainable environment, healthy communities, and vibrant economy."

**Michigan Department of Environmental Quality (MDEQ)** – See Michigan Department of Environment, Great Lakes, and Energy (EGLE).

**National Pollutant Discharge Elimination System (NPDES)** – Created in 1972 by the Clean Water Act the agency addresses water pollutants to waters of United States through its permit program.

**Northeast Sewer Pump Station (NESPS)** – A GLWA wastewater pump station that exclusively handles flows from the Oakland Macomb Interceptor Drain Drainage District (OMID). Per the 2019 contract amendment, GLWA will continue to operate the NESPS but OMID will maintain and finance improvements to the NESPS starting in FY2020.

**Oakland Macomb Interceptor Drain Drainage District (OMID)** – A wholesale member partner of the sewer system.

**One Water Institute (OWI)** – A GLWA training program that provides quality education, training and leadership development to GLWA Member Partners to facilitate the creation of a highly-skilled water sector workforce able to provide quality service to customers throughout Southeastern Michigan, using a common language, skills and knowledge base.

**Operation and Maintenance (O&M) Fund** - Accounts for the day-to-day operating expenses of the Department.



## Glossary

**Other post-employment benefits (OPEB)** - The benefits, other than pensions, that a state or local government employee receives as part of his or her package of retirement benefits.

**Ovation** – A reliable and innovative control system that integrates data from monitoring devices for equipment and instrumentation into a single, unified system, reducing complexity and minimizing maintenance.

**Regional Sewer System** - That portion of the Sewer System that provides sewer service to the wholesale customers thereof and Retail Sewer Customers up to the point of connection to the Local Sewer System, which includes the Leased Sewer Facilities.

**Regional Water System** - That portion of the Water System that provides water service to the wholesale customers thereof and Retail Customers up to the point of connection to the Local Water System, which includes the Leased Water Facilities.

**Revenue Financed Capital** – Capital improvements that are funded with current revenues instead of issuing bonds or obtaining SRF loans.

**Revenue Requirement** – The funding requirements defined in the Master Bond Ordinance. These include funds for operation and maintenance, debt service, debt reserves, pension obligation, WRAP, budget stabilization, lease payment, ER&R fund, I&E fund and the surplus fund.

**Shared Services** - Recoverable operations and maintenance costs pursuant to a shared services agreement.

**State Revolving Fund (SRF)** - A State Revolving Fund (SRF) is a fund administered by a U.S. state for the purpose of providing low-interest loans for investments in water and sanitation infrastructure (e.g., sewage treatment, stormwater management facilities, drinking water treatment), as well as for the implementation of nonpoint source pollution. Loans issued may be Drinking Water Revolving Fund (DWRF) or Clean Water Revolving Fund (CWRf). These funds are a combination of federal and state funds.

**Stormwater, Asset Management, and Wastewater (SAW) Program** – Grants or loans issued by the State of Michigan for qualifying wastewater and stormwater related expenditures.

**Trustee** – A trust company or bank, currently U.S. Bank, who shall hold all sums received by it designated as trust funds by the MBO and all funds shall be used only for the purposes and in the manner set forth in the MBO.

**Unfunded Accrued Actuarial Liability (UAAL)** – An actuarial term for pension plans that refers to the difference between the actuarial values of assets owned by the plan and the total benefits due to be paid.

**Units of Service Study (USS)** - A multi-phase study performed by Black and Veatch to determine the water units of service for GLWA's non-master metered member partners: Detroit, Dearborn and Highland Park.

## Glossary

**Water Residential Assistance Program (WRAP)** – Established by the MOU and funded by charges to the customers to provide assistance to indigent residential customers throughout the communities served by GLWA and is independently administered on behalf of the Authority. 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.

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Water Works Park  
Water Treatment Facility



**GLWA**  
*Great Lakes Water Authority*

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