

UW/39/21

TO: Chair and Members of the Union Water Supply System
Joint Board of Management

FROM: Rodney Bouchard, Union Water Manager

DATE: December 8, 2021

RE: Proposed 2022 UWSS Operations and Capital Budget Report



RECOMMENDATION

That the Union Water Supply System Joint Board of Management (UWSS Board) adopts the Proposed 2022 Operational and Capital Budget for the Union Water Supply System;

And further, that the UWSS Board adopts an increase of \$0.0269 per cubic metre for the UWSS Wholesale Rate. The new proposed UWSS Wholesale Rate for 2022 would be \$0.6985 per cubic meter.

And further, that the UWSS General Manager be provided the delegated authority to implement the 2022 UWSS Operations & Maintenance Budget and 2022 Capital Program.

REPORT HIGHLIGHTS

- Potable water demand from UWSS is anticipated to be approximately 20,565,000 m³ (4,524,300,000 imperial gallons) for 2020. This represents a 1.5% increase in water demand over 2021.
- An increase of \$0.0269 per cubic meter is proposed for the UWSS Wholesale Rate. The new proposed Rate 1 wholesale rate for 2022 would be \$0.6985 per cubic meter.
- UWSS Revenue for 2022 is estimated at \$14,943,000 of which \$14,365,000 is from wholesale of water to municipalities, \$413,000 from investment revenue, \$22,000 from Sundry Revenue and \$143,000 from property rental revenue.
- Operational and Debt Service Expenditures for 2022 are estimated at \$8,871,000. This includes \$3,533,000 for OCWA Operations and Maintenance services and \$2,389,596 for the Sunlife Loan (former MFP Debt).
- A budget of \$340,000 has been established for proposed 2022 Operational Studies and Programs.
- 2022 Revenue versus Operational and Debt Service Expenditures are anticipate to result in a surplus of approximately \$6,071,000 for 2022 Fiscal Year;
- A Capital Program of \$8,340,000 is proposed for 2022. This includes continuation of the DAF Phase 1 Project ;
- A draw of \$2,268,000 from the UWSS Reserves would be needed to fund the 2022 Capital Program.
- Projected total UWSS Reserves for January 1, 2022 are estimated at \$19,288,000, including \$11,060,000 in the Rate Stabilization Reserve

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Re: Proposed 2022 UWSS Operations and Capital Budget

BACKGROUND:

Since the Transfer Order of January 2001, the Board is responsible for considering and approving an annual budget for the Union Water Supply System. The format of the budget is generally the same as that previously prepared for 2021.

This draft budget is being presented to the UWSS board for consideration and approval. The draft 2022 budget is outlined to provide details in regards to the following:

- Anticipated revenue for 2022 from wholesale of water to the partner municipalities and from other revenue sources;
- Anticipated operating expenditures for 2022 including estimated costs for operation of the system by the Ontario Clean Water Agency (OCWA), under its contract with UWSS;
- Proposed Capital Works program for 2022 for UWSS;
- Forecasted Operational Expenditures and Capital Works program for 2022-2027.

DISCUSSION:

The draft 2022 Budget documents have been prepared based on the discussions with the contracted operator, OCWA, in regards to operational budget, major maintenance needs, and existing operational issues that would require implementation of capital works to resolve. The Budget documents reflect the following:

- The operations and maintenance costs associated with the 5-Year Cost Plus Operations and Maintenance Agreement between UWSS and OCWA that came into effect on July 1, 2019;
- Capital Projects that were approved and initiated in previous years that are on-going into 2022.

Details regarding the budget components are discussed below.

OPERATING EXPENDITURES

Expenditures for the Union Water Supply System (UWSS) include *Fixed Expenditures* such as the OCWA operations contract, administration, and debt service and *Programs and Studies* that are proposed for 2022 to identify cost effective improvements for the operation of the UWSS. The total projected expenditures for 2022 is budgeted at approximately at \$8,871,000.

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Fixed Expenditures

Fixed expenditures for the budget process include the OCWA Operations Budget, UWSS Administrative Budget, and Debt Service. The total fixed expenditures for 2022 is budgeted at \$8,531,230. The fixed expenditures consist of the following components:

OCWA Operations Budget:	\$3,533,115
UWSS Administrative Budget:	\$ 432,639
Legal/Professional Fees:	\$ 150,000
Leamington Administration Support:	\$ 50,000
Residuals Ponds Maintenance:	\$ 175,000
CO2 Gas Bulk Purchase Contract:	\$ 110,000
Watermain Repairs:	\$ 100,000
Corrosion Monitoring Program:	\$ 50,000
Property Taxes:	\$ 159,500
Electricity and Natural Gas:	<u>\$ 1,381,380</u>
<i>Total Operations, Administrative, Energy:</i>	<i>\$6,141,634</i>
Debt Service:	
Sunlife Debt (MFP Debt):	<u>\$2,389,596</u>
<i>Total Debt Service:</i>	<i>\$2,389,596</i>
Total Fixed Costs:	\$8,531,230

Programs and Studies

A number of Programs and Studies are included in the 2022 Budget. These studies are designed to achieve one of the following goals:

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- Assess and identify improvements to operational processes to improve cost efficiencies potentially resulting in decrease of fixed operations costs such as electricity costs and chemical costs;
- Evaluate water demand and water usage by various sectors including residential, commercial, industrial, and food processing/greenhouse industry to assess future capital infrastructure needs;
- Evaluate water quality to for potential issues such as toxic algae in raw water, nitrification issues in larger distribution systems, etc.
- Evaluate new technologies that may benefit UWSS' operations

For the 2022 budget year, \$340,000 has been allocated to Programs and Studies. The following studies are proposed or currently in place.

Lake Erie HAB Monitoring Project:	\$100,000
New WTP Reservoir #3 Study & Preliminary Engineering:	\$ 80,000
Leak Detection Study:	\$ 75,000
Backup Power Generation/Energy Study:	<u>\$ 50,000</u>
UWSS Infrastructure Review and Master Servicing Plan:	<u>\$ 35,000</u>
Total:	\$340,000

Operating Expenditure Summary

Fixed Expenditures:	\$8,531,230
Programs and Studies:	<u>\$ 340,000</u>
Total Operating Expenditures for 2020:	\$8,871,230

REVENUE

Revenue for the budget process is mainly based on wholesale billings from the sale of potable water to the 4 municipal owners. A much smaller component of revenue is based on miscellaneous revenue such as investment income and sundry income. The total estimated revenue for 2022 is \$14,943,049

Wholesale Water Revenue Summary

Wholesale water revenue is based on annual water usage by the 4 owner municipalities and the wholesale water rates.

Water Usage

The projected water “usage” by municipal owners for 2022 is 20,565,000 m³ (4,524,300,000 imperial gallons), which is based on a 1.5% increase in water demand over 2021.

Figure 1 depicts the total UWSS water usage trend from 1998-2021 (value for 2021 is a projected total).

Figure 1

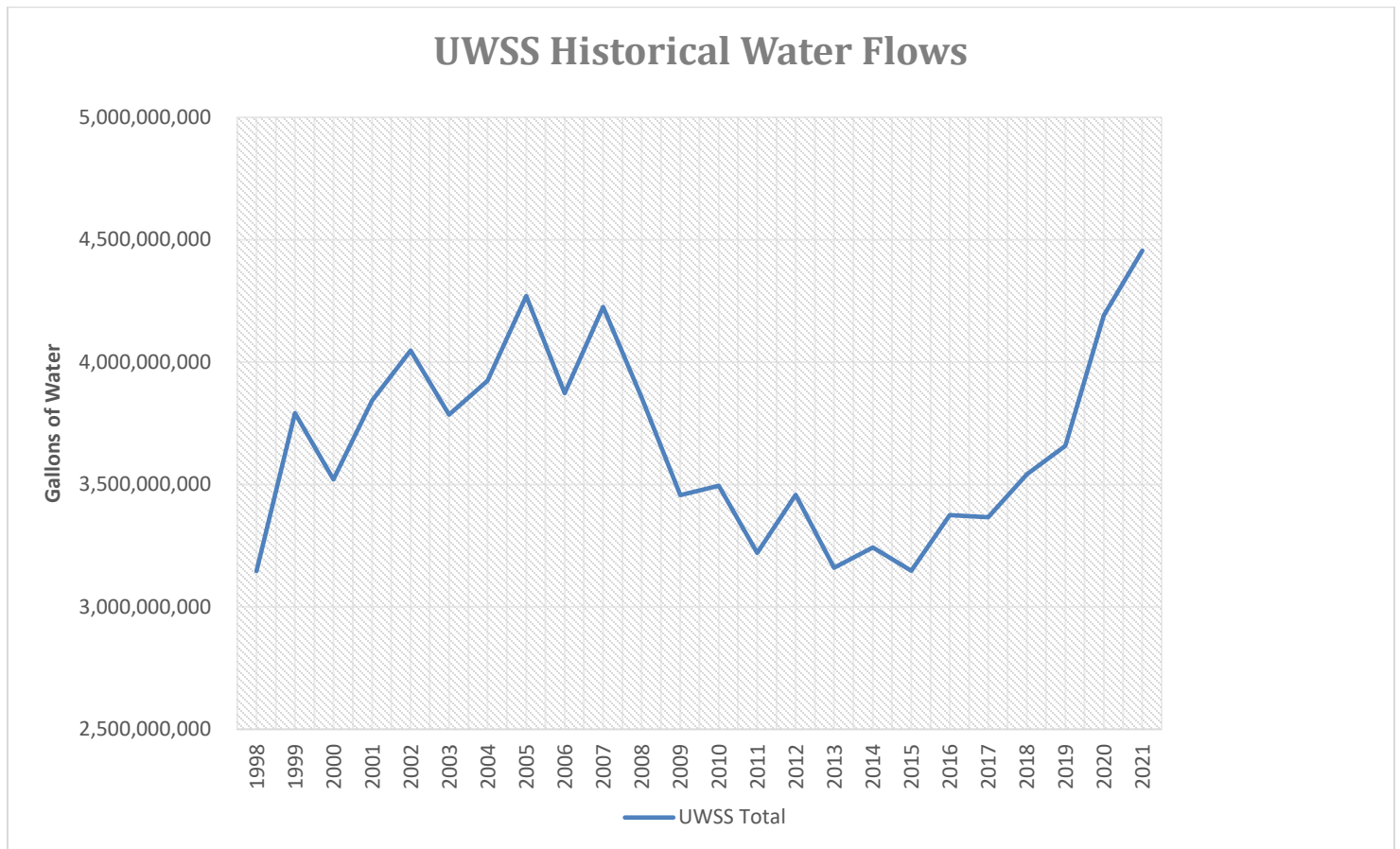
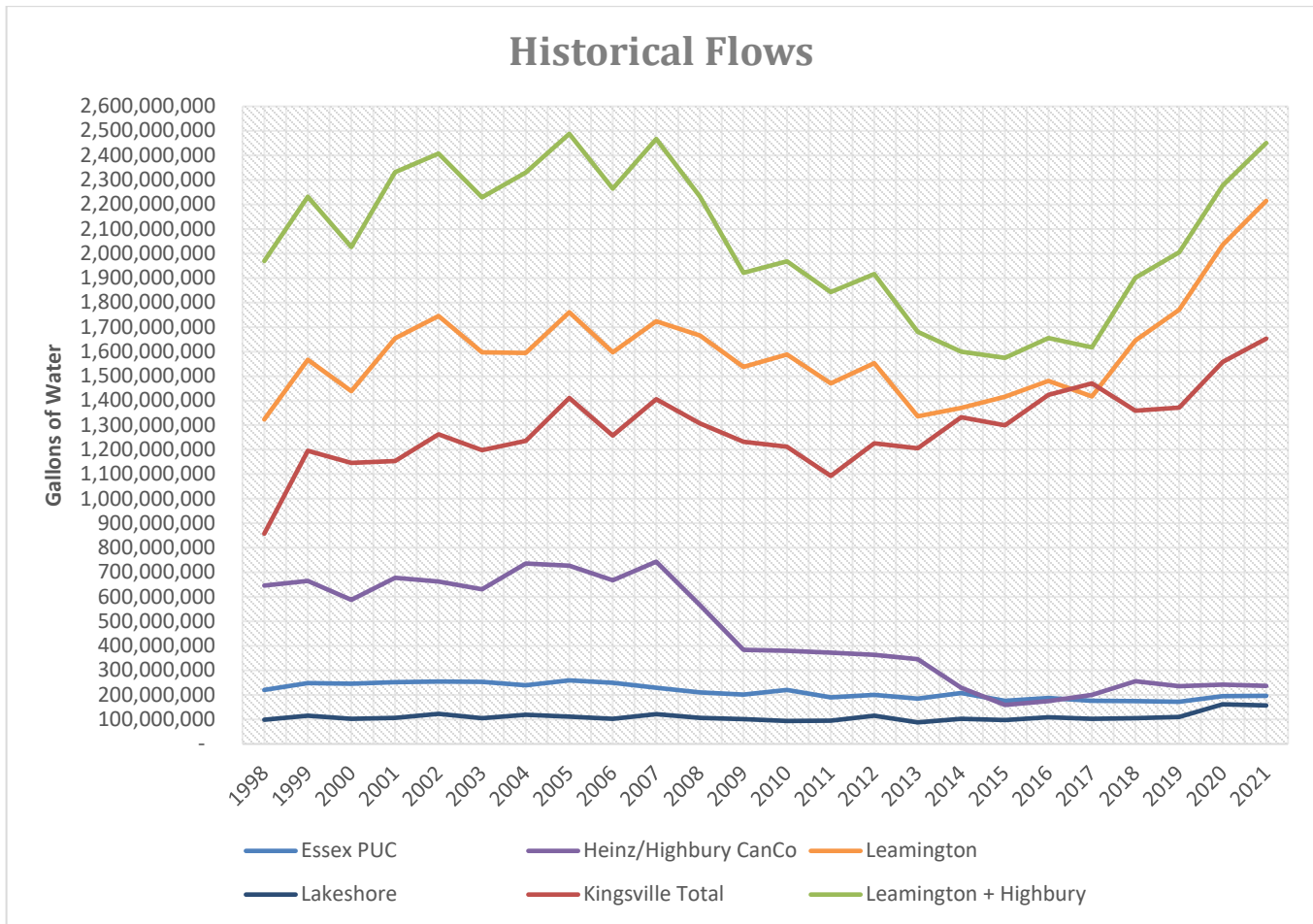


Figure 2 depicts the water usage trend by each municipal partner from 1998-2021.

Figure 2



Wholesale Water Rates

For the 2022 budgeting process, it is proposed that an increase of \$0.0269 per cubic meter be applied to the UWSS wholesale rate. This would result in a 2022 UWSS wholesale rate of \$0.6985 per cubic meter to be applied as of January 1, 2022.

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Based on the anticipated water demand of 20,565,000 m3 of potable water for 2022, the wholesale rate water revenue is estimated at:

Wholesale Rate Revenue Total: \$14,364,653

Miscellaneous Revenue

Miscellaneous revenue includes income from investments and sundry income.

Investment (interest) income:	\$ 413,311
Property Rental Revenue:	\$ 142,800
Sundry revenue:	<u>\$ 22,285</u>
Total Misc. Revenue:	\$ 578,396

Sundry revenue is revenue received from various sources such as lease of space on water towers for telecommunications equipment. The property rental revenue is revenue from recently acquired property that is being leased to a tenant.

Revenue Summary

Wholesale Rate Revenue:	\$14,364,653
Miscellaneous Revenue :	<u>\$ 578,396</u>
Total Estimated Revenue for 2022:	\$14,943,049

REVENUE VERSUS OPERATING EXPENDITURES

A comparison of Revenue versus Expenditures for 2022 budget is as follows. It should be noted that the total estimated expenditures also include the proposed budget for operational Programs and Studies of \$340,000.

Total Estimated Revenue:	\$14,943,049
Total Estimated Expenditures:	<u>\$ 8,871,230</u>
Surplus/(Deficit):	\$ 6,071,819

CAPITAL PROGRAM

The proposed Capital Program for 2022 is budgeted at \$8,305,000.

Capital Works:

The following major capital works projects are proposed for 2022:

Dissolved Air Flootation Phase 1 (cont'd from 2021):	\$6,250,000
Albuna Water Tower Upgrades:	\$ 250,000
Residuals System Upgrades:	\$ 250,000
New High Lift Pump #7:	\$ 175,000
Grounds Improvements (asphalt/road repairs, landscaping):	\$ 150,000
Variable Frequency Drives for Low Lift Pumps:	\$ 150,000
Distribution System Component Improvements:	\$ 150,000
Low Lift Roof Replacement:	\$ 130,000
New Backup Wastewater Pump:	\$ 90,000
Kingsville Water Tower Utility Building:	\$ 85,000
PLC Upgrades at Cottam Booster & Generator B:	\$ 75,000
Outbuilding Improvements:	\$ 75,000
Electrical Improvements (new capacitors):	\$ 70,000
Filter Aid System Upgrades:	\$ 60,000
Travelling Screen #3 Major Maintenance:	\$ 50,000
Master Water Meter Upgrades:	\$ 50,000
Low Lift Pump #7 Rehab:	\$ 45,000
Treatment Plant Building Improvements - Admin Area:	\$ 45,000
New Carbon Feed Pumps (4):	\$ 40,000
Fencing Upgrades (various areas):	\$ 40,000
High Lift Pump #8 Major Maintenance:	\$ 35,000
Communication System Upgrades:	\$ 30,000
Surge Valves - High Lift Pumps #8 and #9:	\$ 25,000
Clearwell #1 Intake valve rotork:	<u>\$ 20,000</u>
Total Capital Works for 2022:	\$8,340,000

BUDGET SUMMARY

The proposed 2021 budget is summarized as follows:

Total Estimated Revenue: (includes wholesale rate revenue and miscellaneous revenue)	\$14,943,049
Total Estimated Operating Expenditures: (includes Operations Contract, UWSS Admin, Programs & Studies)	<u>(\$8,871,230)</u>
Revenue versus Operating Expenditures: Surplus/ (Deficit)	\$6,071,819
Capital Program: (includes Capital Purchases and Capital Works)	<u>(\$8,340,000)</u>
NET SURPLUS/ (DEFICIT) : (Operating surplus/deficit less Capital Program)	(\$2,268,181)

The capital program for 2022 will be funded through 2022 Revenue and UWSS Reserves.

CASH /RESERVES VERSUS DEBT

Cash and Reserves for UWSS as of January 1, 2022 are forecasted to be approximately \$19,288,000 dollars. It should be noted that of the estimated \$19,288,000 in available cash and reserves for 2022, approximately \$11,060,000 are dedicated to UWSS Settlement Reserve, which is associated with the 2006 settlement that was reached regarding the MFP debt. Although the UWSS Board has authority to use these funds as it sees fit, the intent is to keep these funds in an interest bearing investment funds to offset the annual MFP Debt obligation and to function as a rate stabilizing Reserve Fund. These funds are currently invested in a GIC that will come to term in 2022 but are fully liquid and accessible if needed.

The 2022 UWSS Operating and Capital Budget projects a Net Deficit of \$2,268,181 for 2022 year end. Thus, it is anticipated that UWSS reserves at the end of 2022 will decrease to approximately \$17,300,000

Based on debt repayment schedules, the total UWSS long term debt balance as of January 2022 is \$9,375,773 and consists solely of the Sunlife Loan (aka former MFP Debt) that has a term date of 2026. At the end of 2022, this debt will decrease to \$7,908,943.

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Re: Proposed 2022 UWSS Operations and Capital Budget

PROPOSED 6-YEAR CAPITAL WORKS PLAN

The UWSS General Manager, with assistance and input from OCWA Operations Staff has developed a proposed 6-year Capital Works Plan (2022-2027) for the UWSS. This Plan reflects the intention to undertake upgrades and improvements to the UWSS to address lifecycle replacement/upgrade issues and to improve water treatment, storage and transmission efficiencies.

The Proposed 6-Year Capital Plan is included as Appendix B to this Report. The Plan identifies the proposed works for each year and the anticipated value of the works. The total proposed rate and Reserve funded capital works expenditures for 2022-2027 are projected at \$26,120,000. Proposed debt funded capital works for this period is valued at \$42,000,000 and include proposed Reservoir #3/ UV project (\$30,000,000) and upgrade of 12-inch watermain to Cottam (\$12,000,000).

CONCLUSIONS:

It is the UWSS General Manager's opinion that the Budget presented in this report provides a Budget for UWSS that is fiscally prudent while also providing for the major maintenance and lifecycle replacements needed to ensure that UWSS facilities and operations are effective and sustainable for the future.

Respectfully submitted,



Rodney Bouchard, General Manager
Union Water Supply System Joint Board of Management
rb/kmj

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**2022 UWSS PROPOSED OPERATIONS AND CAPITAL BUDGET
TABLES AND DETAILS**

**UNION WATER SUPPLY SYSTEM
2022 PROPOSED
BUDGET
Budgeted Water Demand and Wholesale Rate Revenue**

Flow Metering Location	2021 Budget Estimate	2021 Forecasted to Dec 31, 2021	2022 Rate Increase of \$0.0269 per m3	2023 Rate Increase of \$0.0279 per m3	2024 Rate Increase of \$0.0291 per m3	2025 Rate Increase of \$0.0302 per m3	2026 Rate Increase of \$0.0314 per m3	2027 Rate Increase of \$0.0163 per m3
Essex PUC	881,000	889,810	892,000	896,460	900,942	905,447	909,974	914,524
Gosfield N. Twsp	695,000	681,100	690,000	693,450	696,917	700,402	703,904	707,423
Gosfield S. Twsp	5,957,000	6,135,710	6,260,000	6,353,900	6,449,209	6,545,947	6,644,136	6,743,798
Highbury CanCo	1,063,000	1,073,630	1,075,000	1,080,375	1,085,777	1,091,206	1,096,662	1,102,145
Kingsville PUC	688,000	694,880	698,000	701,490	704,997	708,522	712,065	715,625
Leamington PUC	9,496,000	10,065,760	10,235,000	10,419,230	10,606,776	10,797,698	10,992,057	11,189,914
Lakeshore	697,000	710,940	715,000	718,575	722,168	725,779	729,408	733,055
Total Flow:	19,477,000	20,251,830	20,565,000	20,863,480	21,166,786	21,475,000	21,788,205	22,106,484
	4,284,940,000	4,455,402,600	4,524,300,000	4,589,965,600	4,656,693,006	4,724,500,109	4,793,405,109	4,863,426,515
		4%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Rate 1 Flow	19,477,000	20,251,830	20,565,000	20,863,480	21,166,786	21,475,000	21,788,205	22,106,484
Rate 1	\$0.6716	\$0.6716	\$0.6985	\$0.7264	\$0.7555	\$0.7857	\$0.8171	\$0.8334
Rate 1 Revenue	\$13,080,753	\$13,601,129	\$14,364,653	\$15,155,232	\$15,991,507	\$16,872,908	\$17,803,142	\$18,423,544
Capital Rate - Greenhouse Flow			11,310,750	11,474,914	11,641,733	11,811,250	11,983,513	12,158,566
Capital Rate				\$0.08	\$0.08	\$0.08	\$0.08	\$0.08
Capital Rate Revenue			\$0.00	\$917,993.12	\$931,338.60	\$944,900.02	\$958,681.02	\$972,685.30
Rate 3 Flow	0	0	0	0	0	0	0	0
Rate 3 Flow	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Rate 3 Revenue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Lifecycle Rate	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791	\$0.0791
	\$1,541,020	\$1,602,325	\$1,627,103	\$1,650,719	\$1,674,716	\$1,699,102	\$1,723,883	\$1,749,065
Total Revenue	\$13,080,753	\$13,601,129	\$14,364,653	\$16,073,225	\$16,922,846	\$17,817,808	\$18,761,823	\$19,396,229

UNION WATER SUPPLY SYSTEM
2022 PROPOSED BUDGET
Budget Summary

	2021	2021	2022	2023	2024	2025	2026	2027
	Rate Increase of \$0.0258 per m3	Forecasted to Dec 31, 2021	Rate Increase of \$0.0269 per m3	Rate Increase of \$0.0279 per m3	Rate Increase of \$0.0291 per m3	Rate Increase of \$0.0302 per m3	Rate Increase of \$0.0314 per m3	Rate Increase of \$0.0163 per m3
REVENUE								
Senior Government Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Wholesale Rate Billings	\$13,080,753	\$13,601,129	\$14,364,653	\$16,073,225	\$16,922,846	\$17,817,808	\$18,761,823	\$19,396,229
Investment Income	\$405,207	\$455,000	\$413,311	\$421,577	\$430,009	\$438,609	\$447,381	\$456,329
Sundry revenue	\$21,848	\$34,707	\$22,285	\$22,731	\$23,186	\$23,649	\$24,122	\$24,605
Property Rental Revenue	\$0	\$0	\$142,800					
Municipal Study Revenue	\$70,000	\$70,000	\$0					
Capital Rate Income - Greenhouse Sector			\$0	\$917,993	\$931,339	\$944,900	\$958,681	\$972,685
TOTAL REVENUES	\$13,577,809	\$14,160,836	\$14,943,049	\$16,517,533	\$17,376,040	\$18,280,066	\$19,233,327	\$19,877,163
OPERATING EXPENDITURE								
General Administration	\$411,577	\$357,060	\$432,639	\$435,002	\$440,468	\$446,039	\$451,718	\$457,506
Leamington Assistance	\$30,000	\$30,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Miscellaneous Legal/Professional fees	\$45,000	\$150,000	\$150,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
OCWA Operating Contract	\$3,430,209	\$3,430,209	\$3,533,115	\$3,639,109	\$3,748,282	\$3,860,730	\$3,976,552	\$4,095,849
Programs and Studies	\$430,000	\$349,740	\$340,000	\$250,000	\$150,000	\$150,000	\$150,000	\$150,000
Operational/Maintenance/Upgrades - General	\$350,000	\$305,000	\$325,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Property Taxes	\$147,500	\$147,500	\$159,500	\$162,690	\$165,944	\$169,263	\$172,648	\$176,101
CO2 Liquified Gas Procurement	\$100,000	\$25,000	\$110,000	\$112,200	\$114,444	\$116,733	\$119,068	\$121,449
Electricity and Natural Gas	\$1,315,600	\$1,350,000	\$1,381,380	\$1,450,449	\$1,522,971	\$1,599,120	\$1,679,076	\$1,763,030
TOTAL OPERATING EXPENDITURES	\$6,259,886	\$6,144,509	\$6,481,634	\$6,474,449	\$6,567,109	\$6,766,885	\$6,974,062	\$7,188,935
Debt Service - Sunlife Loan	\$2,370,377	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392	\$2,449,323	\$2,467,669	\$0
Capital Loan for Reservoir and UV - \$30million @ 3% for 10yrs			\$0	\$3,698,728	\$3,698,728	\$3,698,728	\$3,698,728	\$3,698,728
Cottam WM replacement loan - \$12million @ 3% for 10yrs								\$1,457,928
TOTAL DEBT SERVICE EXPENDITURES	\$2,370,377	\$2,370,377	\$2,389,596	\$6,107,662	\$6,127,120	\$6,148,051	\$6,166,397	\$5,156,656
CASH CAPITAL EXPENDITURE								
Capital Repair, Maintenance & Upgrade Works	\$13,457,410	\$5,429,750	\$8,340,000	\$2,865,000	\$6,360,000	\$4,480,000	\$2,690,000	\$1,420,000
	\$0							
TOTAL CASH FUNDED CAPITAL EXPENDITURES	\$13,457,410	\$5,429,750	\$8,340,000	\$2,865,000	\$6,360,000	\$4,480,000	\$2,690,000	\$1,420,000
NET SURPLUS/(DEFICIT)	(\$8,509,865)	\$216,200	(\$2,268,181)	\$1,070,422	(\$1,678,189)	\$885,130	\$3,402,868	\$6,111,572

**UNION WATER SUPPLY SYSTEM
2022 PROPOSED BUDGET
Operational Revenue and Expenditures Budget**

Number	Account Description	2021	2021	2022	2023	2024	2025	2026	2027
		Rate Increase of \$0.0258 per m3	Forecasted to Dec 31, 2021	Rate Increase of \$0.0269 per m3	Rate Increase of \$0.0279 per m3	Rate Increase of \$0.0291 per m3	Rate Increase of \$0.0302 per m3	Rate Increase of \$0.0314 per m3	Rate Increase of \$0.0163 per m3
REVENUE ACCOUNTS									
FEES REVENUE									
0700-3700	Wholesale Rate Billings	\$13,080,753	\$13,601,129	\$14,364,653	\$16,073,225	\$16,922,846	\$17,817,808	\$18,761,823	\$19,396,229
	Capital Rate Income - Greenhouse Sector			\$0	\$917,993	\$931,339	\$944,900	\$958,681	\$972,685
		\$13,080,753	\$13,601,129	\$14,364,653	\$16,073,225	\$16,922,846	\$17,817,808	\$18,761,823	\$19,396,229
MISCELLANEOUS REVENUES									
0700-4100	Investment Income (Operations)	\$405,207	\$455,000	\$413,311	\$421,577	\$430,009	\$438,609	\$447,381	\$456,329
0700-3999	Sundry revenue	\$21,848	\$34,707	\$22,285	\$22,731	\$23,186	\$23,649	\$24,122	\$24,605
	Property Rental Revenue			\$142,800	\$71,400				
	Property Sale				\$650,000				
	Municipal Study Revenue (Windsor Utilities)	\$70,000	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0
		\$497,055	\$559,707	\$578,397	\$1,165,708	\$453,195	\$462,258	\$471,504	\$480,934
	TOTAL REVENUES :	\$13,577,809	\$14,160,836	\$14,943,049	\$17,238,933	\$17,376,040	\$18,280,066	\$19,233,327	\$19,877,163
EXPENDITURE ACCOUNTS									
WAGES AND BENEFITS									
0700-5000	Salaried	\$187,272	\$187,262	\$191,017	\$194,838	\$198,735	\$202,709	\$206,763	\$210,899
	Part time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-5200 to 5210	Benefits - Full time	\$65,805	\$65,805	\$67,121	\$68,464	\$69,833	\$71,230	\$72,654	\$74,107
	Benefits - Part time	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		\$253,077	\$253,067	\$258,139	\$263,302	\$268,568	\$273,939	\$279,418	\$285,006
OFFICE OVERHEAD, RENTS AND SERVICES									
0700-7010	Office supplies	\$2,000	\$1,500	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7015	Board expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
0700-7020	Dues, Memberships, Subsc	\$5,000	\$3,750	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
0700-7030	Travel & Mileage	\$2,500	\$375	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
0700-7040	Training	\$6,000	\$750	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7050	Conferences	\$6,000	\$1,500	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
0700-7052	Meeting Expenses	\$2,000	\$500	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
0700-7070	Uniforms/Clothing	\$500	\$150	\$500	\$500	\$500	\$500	\$500	\$500
0700-7950	Legal/Professional fees	\$45,000	\$150,000	\$150,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
0700-7959-002070	Audit Fees	\$6,500	\$6,500	\$6,500	\$6,700	\$6,900	\$7,100	\$7,300	\$7,500
0700-7080 & 7085	Operational Purchases/Maint.	\$17,500	\$0	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500	\$17,500
0700-7110	Communications	\$1,500	\$1,300	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
0700-7120	Postage & Courier	\$500	\$100	\$500	\$500	\$500	\$500	\$500	\$500
0700-7130	Advertising & Promotion	\$7,000	\$2,500	\$5,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
0700-7140	Insurance	\$15,000	\$17,818	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000	\$22,000
0700-7130	Donations & Grants	\$4,000	\$0	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000
0700-7240	Tech Hardware Maintenance (SCADA, etc)	\$40,000	\$17,500	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000	\$40,000
0700-7250	Tech Hardware Purchases (non-TCA)	\$5,000	\$4,250	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
0700-7260	Software Licensing and Support	\$25,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
0700-7270	Software Purchases	\$2,500	\$1,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
0700-7290	Telecom Maintenance	\$5,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
	COVID 19 Related	\$5,000	\$3,000	\$5,000	\$0	\$0	\$0	\$0	\$0
		\$203,500	\$253,993	\$324,500	\$246,700	\$246,900	\$247,100	\$247,300	\$247,500
	TOTAL OPERATIONAL EXPENDITURES:	\$6,262,546	\$6,147,169	\$6,481,634	\$6,474,449	\$6,567,109	\$6,766,885	\$6,974,062	\$7,188,935
	NET OPERATIONAL SURPLUS/(DEFICIT)	\$7,315,262	\$8,013,667	\$8,461,415	\$10,764,484	\$10,808,931	\$11,513,181	\$12,259,265	\$12,688,228
DEBT SERVICE									
0700-6000 & 6100	Sun Life Debt Obligation	\$2,370,377	\$2,370,377	\$2,389,596	\$2,408,934	\$2,428,392	\$2,449,323	\$2,467,669	\$0
	\$30million Capital Loan	\$0	\$0	\$0	\$3,698,728	\$3,698,728	\$3,698,728	\$3,698,728	\$3,698,728
	Cottam WM Replacement Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,457,928
	TOTAL DEBT SERVICE:	\$2,370,377	\$2,370,377	\$2,389,596	\$6,107,662	\$6,127,120	\$6,148,051	\$6,166,397	\$5,156,656
	SURPLUS/(DEFICIT) AFTER DEBT	\$4,944,885	\$5,643,290	\$6,071,819	\$4,656,822	\$4,681,811	\$5,365,130	\$6,092,868	\$7,531,572

UNION WATER SUPPLY SYSTEM
PROPOSED 2022 BUDGET
Capital Program

Item Description	Studies	Treatment Plant Upgrades & Renewals	Low Lift Upgrades	Cottam Booster Upgrades	SCADA / Communication/ Security System Upgrades	Transmission Facilities	General/ Various Facilities	TOTAL	Comments
STUDIES/PROGRAMS									
Lake Erie HAB Monitoring Project - UWSS & Univ. of Windsor/GLIER	\$100,000							\$100,000	
Leak Detection Study	\$75,000							\$75,000	
New Ruthven WTP Reservoir #3 Study/ Preliminary Engineering	\$80,000							\$80,000	Original project budget was \$30k
Backup power generation/ energy study	\$50,000							\$50,000	Increase of \$10k
UWSS Infrastructure Review and Master Servicing Plan	\$35,000							\$35,000	Continuation of 2021 work
Total Studies/Programs	\$340,000							\$340,000	
CAPITAL WORKS/ MAJOR MAINTENANCE									
Low Lift #7 Rehab			\$45,000					\$45,000	
Low Lift Roof Replacement			\$130,000					\$130,000	Original budget was \$75k
Travelling Screen #3 major maintenance			\$50,000					\$50,000	
Filter Aid System Upgrade		\$60,000						\$60,000	
Highlift Pump #8 Major Maintenance		\$35,000						\$35,000	
Highlift Pump #7 - New		\$175,000						\$175,000	
Surge Valves for High Lift Pumps #8 and #9		\$25,000						\$25,000	
New Carbon Feed Pumps (4)		\$40,000						\$40,000	
Communication System upgrades					\$30,000			\$30,000	
PLC Upgrades - Cottam Booster, Generator B					\$75,000			\$75,000	
Electrical Upgrades - capacitors, etc.							\$70,000	\$70,000	
New Variable Frequency Drives (VFDs) and upgrades to Cottam Booster Pumps				\$150,000				\$150,000	
Albuna Water Tower Upgrades						\$250,000		\$250,000	
Distribution System Components						\$150,000		\$150,000	
Master Water Meters Upgrades						\$50,000		\$50,000	
Treatment Plant Bldg Improvements - Admin Area		\$45,000						\$45,000	
Clearwell #1 Inlet Rotork - new		\$20,000						\$20,000	
Wastewater Pump - New backup pump		\$90,000						\$90,000	Original budget was \$50k
Wastewater Pond Upgrades		\$250,000						\$250,000	
Grounds Improvements (landscaping; asphalt/road repairs, etc)							\$150,000	\$150,000	
Outbuilding Improvements							\$75,000	\$75,000	
Fencing Upgrades - various areas							\$40,000	\$40,000	
Total Capital Works/ Major Maintenance		\$740,000	\$225,000	\$150,000	\$105,000	\$450,000	\$335,000	\$2,005,000	
NEW CAPITAL WORKS									
DAF System Design for 2 units; construction of Clarifier #2 retrofit (Total project budget is \$9,250,000; Estimate \$3,000,000 in 2021 and \$6,250,000 in 2022)		\$6,250,000						\$6,250,000	
Kingsville Water Tower new utility Building							\$85,000	\$85,000	
Total New Capital Works		\$6,250,000	\$0	\$0	\$0	\$0	\$85,000	\$6,335,000	
TOTAL MAJOR MAINTENANCE and CAPITAL		\$6,990,000	\$225,000	\$150,000	\$105,000	\$450,000	\$420,000	\$8,340,000	

UNION WATER SUPPLY SYSTEM
PROPOSED 2022 BUDGET
2021 Capital Expenditures

Item Description	TOTAL	Expenditures	Budget Remainder	Projected Expenditures to Year End	Projected +/- Budget	Comments
STUDIES/PROGRAMS						
Lake Erie HAB Monitoring Project - UWSS & Univ. of Windsor/GLIER	\$100,000	\$101,740	-\$1,740	\$101,740	-\$1,740	Fully Allocated/ Funded for 2021
Emergency Water Servicing Study - UWSS & WUC	\$115,000	\$64,514	\$50,486	\$115,000	\$0	Preliminary Report Issued. Final Due December.
New Ruthven WTP Reservoir #3 Study/ Reservoir Optimization	\$30,000	\$3,153	\$26,847	\$0	\$30,000	Delayed due to other work - Reallocate to 2022
Backup power generation/ energy study	\$40,000	\$0	\$40,000	\$0	\$40,000	Delayed due to other work - Reallocate to 2022
UWSS Water Treatment Capacity Testing (Stress Test)	\$0	\$0	\$0	\$33,000	-\$33,000	Undertaken in place of Reservoir #3 Study
UWSS Infrastructure Review and Master Servicing Plan	\$145,000	\$67,281	\$77,719	\$100,000	\$45,000	Draft Report issued - Final report to be issued in October 2021
Total Studies/Programs	\$430,000	\$236,687	\$193,313	\$349,740	\$80,260	
CAPITAL WORKS/ MAJOR MAINTENANCE						
Low Lift #6 Rehab	\$35,000	\$40,183	-\$5,183	\$40,183	-\$5,183	Initially allocated to LL#3 but more pressing to do LL#6 - Done
Low Lift Roof Replacement	\$75,000	\$0	\$75,000	\$0	\$75,000	Delayed due to other work - Reallocate to 2022
Low Lift Main Electrical-Transformer/Feed/Switch Gear/Breaker Upgrades	\$200,000	\$172,776	\$27,224	\$172,776	\$27,224	Work Complete
Filter Aid System Upgrade	\$60,000	\$0	\$60,000	\$0	\$60,000	Delayed due to DAF project - Reallocate to 2022
Filter # 2 - Rehab (recoat filter box; new underdrains)	\$376,205	\$287,709	\$88,496	\$380,169	-\$3,964	Work Complete
Filter # 4 - Rehab (recoat filter box; new underdrains)	\$376,205	\$287,709	\$88,496	\$380,169	-\$3,964	Work Complete
Highlift Pump #7 - New	\$175,000	\$0	\$175,000	\$0	\$175,000	Delayed due to DAF project - Reallocate to 2022
Communication System upgrades	\$35,000	\$0	\$35,000	\$20,000	\$15,000	Upgrades to be done at Low Lift/Cottam etc. in Oct-Nov 2021
PLC Upgrades - Low Lift, Cottam Booster, Generator B	\$150,000	\$85,450	\$64,550	\$85,450	\$64,550	New Low Lift PLC Installed. PLC for Cottam and Gen B in 2022
Electrical Upgrades - capacitors, etc.	\$70,000	\$0	\$70,000	\$70,000	\$0	To be reviewed in 2021 and equip purchased in 2022
Cottam Booster mixing system design and install	\$75,000	\$0	\$75,000	\$0	\$75,000	Delayed due to other work - Reallocate to future year
Kingsville Water Tower Recoating; Safety Upgrades; Improvements	\$1,650,000	\$1,616,187	\$33,813	\$1,737,877	-\$87,877	Substantially complete - Minor items remaining - Overbudget due error in budget for engineering/contract management; mitigated through other project underspending.
Essex Water Tower New Cathodic Protection System	\$40,000	\$33,434	\$6,566	\$33,434	\$6,566	Work Complete
Distribution System Components	\$150,000	\$172,769	-\$22,769	\$172,769	-\$22,769	Work Complete - overbudget due to material/shipping cost increases (COVID), labour, etc. Over spending mitigated through other project underspending.
Master Water Meters Upgrades	\$50,000	\$19,803	\$30,197	\$25,000	\$25,000	Pipe:Scan Ordered. Meter 1A Rotork ordered in November 2021. Awaiting delivery
Laboratory Upgrades	\$75,000	\$75,441	-\$441	\$75,441	-\$441	Lab construction complete
Treatment Plant Bldg Improvements - Admin Area	\$30,000	\$15,943	\$14,057	\$15,943	\$14,057	Work complete for 2021. Additional work reallocate to 2022
Clearwell #1 Inlet Rotork - new	\$20,000	\$0	\$20,000	\$15,000	\$5,000	Equipment ordered in November. Awaiting delivery
Wastewater Pump - New backup pump	\$50,000	\$0	\$50,000	\$0	\$50,000	Delayed due to other work - Reallocate to 2022
Grounds Improvements (landscaping; asphalt/road repairs, etc)	\$170,000	\$0	\$170,000	\$0	\$170,000	Delayed due to other work - Reallocate to 2022
Ammonia Building Retrofits	\$125,000	\$74,887	\$50,113	\$100,000	\$25,000	Work Ongoing
Fencing - Treatment Plant Property; Leamington Water Tower Property	\$20,000	\$0	\$20,000	\$0	\$20,000	Delayed due to other work - Reallocate to 2022
Low Lift Wet Well Algae Monitoring System	\$50,000	\$49,650	\$350	\$49,650	\$350	New budget item approved in Sept 2021-Equipment Received and Installed
Total Capital Works/ Major Maintenance	\$4,057,410	\$2,931,942	\$1,125,469	\$3,373,861	\$683,549	
NEW CAPITAL WORKS						
DAF System Design for 2 units; construction of Clarifier #2 retrofit (Total project budget is \$9,250,000; Estimate \$7,000,000 in 2021 and \$2,250,000 in 2022)	\$9,250,000	\$1,988,792	\$7,261,208	\$2,000,000	\$7,250,000	Construction underway - Completion May 2022
Kingsville Water Tower new utility Building	\$150,000	\$55,889	\$94,111	\$55,889	\$94,111	Design/engineering/subsurface/survey work completed - Construction in 2022
Total New Capital Works	\$9,400,000	\$2,044,681	\$7,355,319	\$2,055,889	\$7,344,111	
TOTAL MAJOR MAINTENANCE and CAPITAL	\$13,457,410	\$4,976,623	\$8,480,787	\$5,429,750	\$8,027,660	

**UWSS 6-YEAR CAPITAL PLAN
TABLES AND DETAILS**

UNION WATER SUPPLY SYSTEM Six Year Recommended Capital / Major Maintenance - December 12, 2021							
	2022	2023	2024	2025	2026	2027	Total Capital Expenditures 2022-2027
Union Area Water Supply System							
Studies and Programs							
Lake Erie HAB Monitoring Study - UWSS & U of Windsor	\$ 100,000	\$ 100,000					\$ 200,000
Leak Detection Study	\$ 75,000						\$ 75,000
New Ruthven WTP Reservoir #3 Study/ Preliminary Engineering	\$ 80,000						\$ 80,000
Backup power generation / energy study	\$ 50,000						\$ 50,000
UWSS Infrastructure Review and Master Servicing Plan	\$ 35,000						\$ 35,000
Contingency (un-identified future studies)		\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 750,000
Subtotal Studies and Programs	\$ 340,000	\$ 250,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 1,190,000
Low Lift							
Intake #1 & 2* (Note 5)			\$ 30,000	\$ 30,000			\$ 60,000
Intake # 2 (See Item 16 for more detail)							\$ -
Intake # 3, shoreline intake							\$ -
Coarse Bar Screen (2)							\$ -
Travelling Screen #1							\$ -
Travelling Screen #2							\$ -
Travelling Screen #3	\$ 50,000						\$ 50,000
Pump Wells(2)							\$ -
Low Lift Pump 1 *(Note 1)							\$ -
Low Lift Pump 2							\$ -
Low Lift Pump 3							\$ -
Low Lift Pump 4		\$ 35,000					\$ 35,000
Low Lift Pump 5							\$ -
Low Lift Pump 6							\$ -
Low Lift Pump 7	\$ 45,000						\$ 45,000
Zebra Mussel Control System			\$ 20,000				\$ 20,000
Pump discharge line							\$ -
Low Lift Surge Tanks (2) and Compressor System *(Note 6)							\$ -
Low Lift Roof Replacement	\$ 130,000						\$ 130,000
Low Lift Diesel Generator				\$ 1,500,000			\$ 1,500,000
Low Lift transformer, feed, switch gear, breaker upgrades							\$ -
General Building Maintenance & Equipment							
Grounds Improvements	\$ 150,000		\$ 35,000		\$ 100,000	\$ 100,000	\$ 385,000
Ammonia Building Retrofits							\$ -
Fencing Upgrades	\$ 40,000						\$ 40,000
Outbuilding Improvements	\$ 75,000					\$ 200,000	\$ 275,000
							\$ -
Clarification System							
Clarifier 1 -							\$ -
Clarifier 2 -							\$ -
Clarifier 3							\$ -
Clarifier 4							\$ -
Chemical System							
Coagulant Feed System		\$ 15,000			\$ 20,000		\$ 35,000
Coagulant Storage							\$ -

Filter Aid System Upgrades	\$ 60,000					\$ 60,000
Carbon Feed System						\$ -
Carbon Flushing Lines						\$ -
Tank Mixers (3)						\$ -
Recirc. Pump						\$ -
Slurry Transfer Pumps (2)						\$ -
Carbon Feed Pumps (4)	\$ 40,000			\$ 30,000		\$ 70,000
Carbon Scrubber System						\$ -
Filtration						\$ -
Filter 1						\$ -
Filter 2						\$ -
Filter 3						\$ -
Filter 4						\$ -
Filter 5						\$ -
Filter 6						\$ -
Filter 7						\$ -
Filter 8						\$ -
Turbidity Meters for Filter Backwash						\$ -
Filter Meter Replacements						\$ -
Valves						\$ -
Removal of Microstrainers/ Install of Flooring						\$ -
Pumps						
Backwash Pump 1 - Actuator upgrade						\$ -
Backwash Pump 2				\$ 150,000		\$ 150,000
High Lift Pump 1 *(Note 2) Diesel Pump						\$ -
High Lift Pump 2						\$ -
High Lift Pump 3						\$ -
High Lift Pump 4						\$ -
High Lift Pump 5						\$ -
High Lift Pump 6						\$ -
High Lift Pump 7	\$ 175,000					\$ 175,000
High Lift Pump 8	\$ 12,500					\$ 12,500
High Lift Pump 9	\$ 12,500			\$ 200,000		\$ 212,500
High Lift Pump No. 10						\$ -
High Lift Reservoirs and components		\$ 50,000				\$ 50,000
Wastewater Pumps (2)	\$ 90,000			\$ 90,000		\$ 180,000
Surge Tanks (2)						
HL Compressor 1						\$ -
HL Compressor 2				\$ 20,000		\$ 20,000
HL Compressor 3		\$ 15,000				\$ 15,000
Main Plant Reservoirs and Clearwells						
Reservoir #1						\$ -
Reservoir #2						\$ -
Clearwells	\$ 20,000			\$ 200,000		\$ 220,000
Main Plant Electrical						
General Electrical upgrades	\$ 70,000					\$ 70,000
New Generators for Treatment Plant						\$ -
Energy Monitoring and Management System - High Lift						\$ -
Generator B Transfer Switch Automation						\$ -
Disinfection						
Dehumidification						\$ -
Chlorine Feed System						\$ -
Ammonia Feed System						\$ -
Scrubber System						\$ -
SCADA /Communication/Security						
Security System Install						\$ -

System upgrade and Maintenance	\$ 75,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 225,000
UWSS Wide Communication System Improvements	\$ 30,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 130,000
Monitoring Equipment							
Turbidity Meter Replacement -							\$ -
Chlorine Analyzer Replacements							\$ -
Blue Green Algae Monitoring Probe							\$ -
Building Maintenance							
Facility Enhancements - General							\$ -
Maintenance Shop Roof Replacement							\$ -
Windows & Doors Replacement							\$ -
Admin Building	\$ 45,000		\$ 25,000				\$ 70,000
Laboratory Upgrade							\$ -
New Equipment							
Portable Backup Generator for Low Lift, Water Towers, Emergency							\$ -
Cottam Reservoir & Booster PS							
Reservoir							\$ -
Booster Pump 1							\$ -
Booster Pump 2							\$ -
Booster Pump 3							\$ -
Booster Pump 4							\$ -
VFDs for Pumps 1-4	\$ 150,000						\$ 150,000
Surge Tanks (2)							\$ -
Compressor							\$ -
Reservoir Cover Regrading/Repairs							\$ -
Rechlorination system upgrades							\$ -
Passive Mixing System Install							\$ -
Distribution System							
Leamington Tower							\$ -
Albuna Tower	\$ 250,000					\$ 500,000	\$ 750,000
Kingsville Tower							\$ -
Essex Tower							\$ -
Distribution System Maintenance	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 900,000
Master Water Meter Replacement/Upgrades	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 300,000
Wastewater Treatment System							
Wastewater Pond Upgrades	\$ 250,000						\$ 250,000
Residuals Management system (see new capital works)							\$ -
							\$ -
NEW CAPITAL PROJECTS							\$ -
Cash Funded Project							\$ -
Pre-Treatment/clarification upgrades (DAF) design	\$ 6,250,000		\$ 6,000,000				\$ 12,250,000
Kingsville Water Tower Utility Building	\$ 85,000						\$ 85,000
Backup Power System Upgrades (e.g. new generators, etc)		\$ 2,500,000	\$ -				\$ 2,500,000
Admin Building upgrades, expansion and elevator				\$ 1,700,000			\$ 1,700,000
Residuals management system upgrades				\$ 1,000,000	\$ 2,000,000		\$ 3,000,000
							\$ -
Debt Funded Project							\$ -
New Reservoir #3		\$ 6,000,000	\$ 15,000,000				\$ 21,000,000
UV Disinfection - In-reservoir UV vault			\$ 9,000,000				\$ 9,000,000
Replacement of 12-inch Cottam Water Main					\$ 4,000,000	\$ 8,000,000	\$ 12,000,000
<i>Subtotal Capital and Major Maintenance</i>	<i>\$1,970,000</i>	<i>\$365,000</i>	<i>\$360,000</i>	<i>\$1,780,000</i>	<i>\$690,000</i>	<i>\$1,420,000</i>	<i>\$ 6,585,000</i>
<i>Total Cash Funded New Capital Projects</i>	<i>\$6,335,000</i>	<i>\$2,500,000</i>	<i>\$6,000,000</i>	<i>\$2,700,000</i>	<i>\$2,000,000</i>	<i>\$0</i>	<i>\$ 19,535,000</i>
Total Cash Funded New Capital and Major Maintenance	\$8,305,000	\$2,865,000	\$6,360,000	\$4,480,000	\$2,690,000	\$1,420,000	\$ 26,120,000
Total Debt Funded Capital	\$0	\$6,000,000	\$24,000,000	\$0	\$4,000,000	\$8,000,000	\$ 42,000,000
							\$ -
TOTAL CAPITAL, STUDIES AND NEW CAPITAL	\$ 8,305,000	\$ 8,865,000	\$ 30,360,000	\$ 4,480,000	\$ 6,690,000	\$ 9,420,000	\$ 68,120,000