

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3080
Project Title:	GREENWAY INCINERATOR REFURBISHMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	G. Gauld

Project Description:  
To refurbish incinerator for existing and additional sludge management capacity at Greenway Wastewater Treatment Operations.

Project Justification:  
Removal of an important component of the City of London Wastewater System that has reached the end of its useful life.

ES3080 - GREENWAY INCINERATOR REFURBISHMENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	613	0	0	0	0	0	0	0	0	0	0	0	0	613
CONSTRUCTION	5,425	700	717	734	752	8,796	563	576	590	604	619	634	0	20,709
CITY RELATED	601	0	0	0	0	0	0	0	0	0	0	0	0	601
VEHICLE & EQUIPMENT	1,079	0	0	0	0	0	0	0	0	0	0	0	0	1,079
TOTAL EXPENDITURES	7,718	700	717	734	752	8,796	563	576	590	604	619	634	0	23,002

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	-543	-700	-717	-734	-752	-4,081	0	-576	-590	-604	-619	-634	0	-10,550
DEBENTURE	-1,813	0	0	0	0	0	0	0	0	0	0	0	0	-1,813
RESERVE FUND	-5,363	0	0	0	0	-4,715	-563	0	0	0	0	0	0	-10,641
SUB-TOTAL RATE SUPPORTED	-7,719	-700	-717	-734	-752	-8,796	-563	-576	-590	-604	-619	-634	0	-23,004
TOTAL SOURCES OF FINANCING	-7,719	-700	-717	-734	-752	-8,796	-563	-576	-590	-604	-619	-634	0	-23,004

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3112
Project Title:	SEWER FLOW MONITORING PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	A. Rammeloo

Project Description:  
WADE manages a flow monitoring program which includes the use of up to 30 flow monitors and associated equipment to measure flows and sewer system overflows, involved work by external contractors.

Project Justification:  
There is need for ongoing equipment maintenance and replacement to ensure rainfall and flow data quality is accurate and reliable. This data is used to support design, development applications, and system optimization.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES3112 - SEWER FLOW MONITORING PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	140	0	20	0	0	22	0	0	24	0	0	25	0	231
CITY RELATED	110	0	0	0	0	0	0	0	0	0	0	0	0	110
TOTAL EXPENDITURES	250	0	20	0	0	22	0	0	24	0	0	25	0	341

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	-250	0	0	0	0	0	0	0	0	0	0	0	0	-250
RESERVE FUND	0	0	-20	0	0	-22	0	0	-24	0	0	-25	0	-91
SUB-TOTAL RATE SUPPORTED	-250	0	-20	0	0	-22	0	0	-24	0	0	-25	0	-341
TOTAL SOURCES OF FINANCING	-250	0	-20	0	0	-22	0	0	-24	0	0	-25	0	-341

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5419
Project Title:	SEWER SYSTEM ASSET MANAGEMENT PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	A. Rammeloo

**Project Description:**  
An annual program to close information gaps, improve inventory knowledge, identify system deficiencies and potential remedies for the sanitary sewerage system that are not covered by other programs or that may be required to conform with changing provincial and federal regulations.

**Project Justification:**  
To meet the requirements of Bill 175 (Full Cost Pricing of Water and Sewer Infrastructure) and forthcoming regulations and to provide a tools for linking existing information systems and developing additional information systems required to develop a maintenance management system and reporting to meet asset management needs. Priority assessment program to provide a tool for priority rankings of sewer replacement needs.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5419 - SEWER SYSTEM ASSET MANAGEMENT PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	1,276	0	0	0	0	0	0	0	0	0	0	0	0	1,276
CONSTRUCTION	466	100	102	105	107	110	113	115	118	121	124	127	0	1,708
CITY RELATED	100	0	0	0	0	0	0	0	0	0	0	0	0	100
OTHER	718	0	0	0	0	0	0	0	0	0	0	0	0	718
TOTAL EXPENDITURES	2,560	100	102	105	107	110	113	115	118	121	124	127	0	3,802

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	-980	-100	-102	-105	-107	-110	-113	-115	-118	-121	-124	-127	0	-2,222
RESERVE FUND	-1,580	0	0	0	0	0	0	0	0	0	0	0	0	-1,580
SUB-TOTAL RATE SUPPORTED	-2,560	-100	-102	-105	-107	-110	-113	-115	-118	-121	-124	-127	0	-3,802
TOTAL SOURCES OF FINANCING	-2,560	-100	-102	-105	-107	-110	-113	-115	-118	-121	-124	-127	0	-3,802

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES182521
Project Title:	SEWER VIDEO INSPECTION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	A. Rammeloo

Project Description:  
An annual program to accurately assess the condition of sewer system using closed circuit television (CCTV).

Project Justification:  
Sewer condition assessment is used to recommend emergency spot repairs, sections that would benefit from sewer lining, scheduling the life cycle replacement program. Accurate condition assessment allows for preventative maintenance programs and sewer lining that prolong the life of the sewer reducing future capital and operating costs.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES182521 - SEWER VIDEO INSPECTION

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	486	498	510	522	535	548	561	574	588	602	0	5,424
TOTAL EXPENDITURES	0	0	486	498	510	522	535	548	561	574	588	602	0	5,424

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-486	-498	-510	-522	-535	-548	-561	-574	-588	-602	0	-5,424
SUB-TOTAL RATE SUPPORTED	0	0	-486	-498	-510	-522	-535	-548	-561	-574	-588	-602	0	-5,424
TOTAL SOURCES OF FINANCING	0	0	-486	-498	-510	-522	-535	-548	-561	-574	-588	-602	0	-5,424



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES241421
Project Title:	INFRASTRUCTURE RENEWAL PROGRAM - SANITARY SEWERS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	A. Rammeloo

Project Description:  
The design and construction of replacement sanitary sewers and private drain connections on a priority basis. Sewers are replaced based on age, material, condition and capacity. Sewers in need of remediation are either fully replaced or spot repaired in conjunction with other service and utility upgrades in selected areas. A video inspection program assists with review and ultimate selection of specific repairs.

Project Justification:  
Annual program to replace aging and deficient sanitary sewers at the end of their useful lives.

ES241421 - INFRASTRUCTURE RENEWAL PROGRAM - SANITARY SEWERS

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	20,000
CONSTRUCTION	0	0	11,616	10,410	11,288	10,867	26,912	12,640	17,785	14,087	16,924	19,900	0	152,429
CITY RELATED	0	0	25	25	25	25	25	25	25	25	25	25	0	250
TOTAL EXPENDITURES	0	0	13,641	12,435	13,313	12,892	28,937	14,665	19,810	16,112	18,949	21,925	0	172,679

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-9,141	-7,935	-8,813	-8,278	-7,819	-9,801	-8,733	-10,971	-12,416	-11,573	0	-95,480
RESERVE FUND	0	0	0	0	0	-115	-16,618	-364	-6,577	-641	-2,033	-5,852	0	-32,200
SUB-TOTAL RATE SUPPORTED	0	0	-9,141	-7,935	-8,813	-8,393	-24,437	-10,165	-15,310	-11,612	-14,449	-17,425	0	-127,680
FEDERAL GRANTS	0	0	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	0	-45,000
SUB-TOTAL NON-RATE SUPPORTED	0	0	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	-4,500	0	-45,000
TOTAL SOURCES OF FINANCING	0	0	-13,641	-12,435	-13,313	-12,893	-28,937	-14,665	-19,810	-16,112	-18,949	-21,925	0	-172,680

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES242821
Project Title:	WATERWAYS AND EROSION MANAGEMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	S. Chambers

Project Description:  
To provide remediation of significant erosion and hydraulic deficiencies in existing open watercourses and stormwater management facilities.

Project Justification:  
Erosion in City rivers and streams risks public safety, damages City property, such as our parks & pathway system & degrades water quality.

ES242821 - WATERWAYS AND EROSION MANAGEMENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	77	79	81	82	84	86	89	91	93	95	0	857
TOTAL EXPENDITURES	0	0	77	79	81	82	84	86	89	91	93	95	0	857

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-77	-79	-81	-82	-84	-86	-89	-91	-93	-95	0	-857
SUB-TOTAL RATE SUPPORTED	0	0	-77	-79	-81	-82	-84	-86	-89	-91	-93	-95	0	-857
TOTAL SOURCES OF FINANCING	0	0	-77	-79	-81	-82	-84	-86	-89	-91	-93	-95	0	-857

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES247821
Project Title:	WATERWAYS RESTORATION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	S. Chambers

Project Description:  
To undertake remediation works required to maintain adequate conveyance capacity and minimize erosion impact within open water courses and their tributaries.

Project Justification:  
Maintain and enhance existing conveyance performance of open watercourses and tributaries to service existing and future land use.

ES247821 - WATERWAYS RESTORATION

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	2,253	2,307	2,362	2,419	2,252	2,306	2,361	2,418	2,476	2,535	0	23,689
TOTAL EXPENDITURES	0	0	2,253	2,307	2,362	2,419	2,252	2,306	2,361	2,418	2,476	2,535	0	23,689

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-999	-2,307	-1,652	0	0	-2,306	0	-1,249	0	0	0	-8,513
RESERVE FUND	0	0	-1,254	0	-710	-2,419	-2,252	0	-2,361	-1,169	-2,476	-2,535	0	-15,176
SUB-TOTAL RATE SUPPORTED	0	0	-2,253	-2,307	-2,362	-2,419	-2,252	-2,306	-2,361	-2,418	-2,476	-2,535	0	-23,689
TOTAL SOURCES OF FINANCING	0	0	-2,253	-2,307	-2,362	-2,419	-2,252	-2,306	-2,361	-2,418	-2,476	-2,535	0	-23,689

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES252321
Project Title:	SEWER CONSTRUCTION & REPAIRS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Sewer Operations
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	R. Pedlow

**Project Description:**  
An annual program to alleviate existing and potential flooding conditions through extensions/completion of sewer sections and repair. Planned work in conjunction with annual programs and unscheduled, urgent work is carried out under this project by City staff. This project also includes the construction of pathways to sewers that are currently inaccessible.

**Project Justification:**  
This program alleviates existing and potential flooding conditions. Separation of storm and sanitary flows is an environmental benefit in addition to reducing the operating costs of treating storm flows at wastewater treatment plants. This program can reduce the operating costs associated with cleaning and maintaining sewers. A well maintained drainage system can provide extended life cycle to roads and reduce the liability of water ponding and road icing. This project provides a means for the City to locate and access existing sewers that are currently inaccessible. Access will provide the City a way to undertake routine maintenance and condition inspection.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES252321 - SEWER CONSTRUCTION & REPAIRS

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	1,741	2,307	1,825	2,419	1,914	2,536	2,007	2,660	2,104	2,789	0	22,302
TOTAL EXPENDITURES	0	0	1,741	2,307	1,825	2,419	1,914	2,536	2,007	2,660	2,104	2,789	0	22,302

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-1,741	-2,307	-1,825	-2,419	-1,914	-2,536	-2,007	-2,660	-2,104	-2,789	0	-22,302
SUB-TOTAL RATE SUPPORTED	0	0	-1,741	-2,307	-1,825	-2,419	-1,914	-2,536	-2,007	-2,660	-2,104	-2,789	0	-22,302
TOTAL SOURCES OF FINANCING	0	0	-1,741	-2,307	-1,825	-2,419	-1,914	-2,536	-2,007	-2,660	-2,104	-2,789	0	-22,302



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES253221
Project Title:	STORMWATER TREATMENT REMEDIATION PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	R. Pedlow

Project Description:  
An annual program that provides ongoing maintenance of stormwater management facilities.

Project Justification:  
The Sewer Operations Division is responsible for providing maintenance on all Stormwater management facilities across the city. Funding is essential to address proactive and reactive requirements in order to meet Ministry Certificate of Approval requirements associated with design capacity/functionality and to ensure environmental quality discharge standards are met.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES253221 - STORMWATER TREATMENT REMEDIATION PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	375	375	300	300	350	300	350	350	350	350	0	3,400
CONSTRUCTION	0	0	1,315	674	1,525	1,239	6,856	1,199	5,518	1,826	2,621	3,199	0	25,972
TOTAL EXPENDITURES	0	0	1,690	1,049	1,825	1,539	7,206	1,499	5,868	2,176	2,971	3,549	0	29,372

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-1,690	-1,049	-1,825	-1,539	-7,206	-1,499	-5,868	-2,176	-2,971	-3,549	0	-29,372
SUB-TOTAL RATE SUPPORTED	0	0	-1,690	-1,049	-1,825	-1,539	-7,206	-1,499	-5,868	-2,176	-2,971	-3,549	0	-29,372
TOTAL SOURCES OF FINANCING	0	0	-1,690	-1,049	-1,825	-1,539	-7,206	-1,499	-5,868	-2,176	-2,971	-3,549	0	-29,372

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES254021
Project Title:	INFRASTRUCTURE RENEWAL PROGRAM -STORMWATER SEWERS & TREATMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	A. Rammeloo

Project Description:  
The design and construction of replacement storm sewers and private drain connections determined by the City Internal Capital Coordinating Committee (C3) and needs of other Engineering Divisions on a priority basis. Sewer are replaced based on age, material, condition, and capacity. Sewers in need of remediation are either fully replaced or spot repaired in conjunction with other service and utility upgrades in selected areas. A video inspection program assists with review and ultimate selection of specific repairs.

Project Justification:  
Annual program to replace aging and deficient storm sewers.

ES254021 - INFRASTRUCTURE RENEWAL PROGRAM -STORMWATER SEWERS & TREATMENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	0	20,000
CONSTRUCTION	0	0	7,945	10,335	11,213	10,337	23,730	12,565	17,489	12,501	18,457	19,335	0	143,907
CITY RELATED	0	0	100	100	100	100	100	100	100	100	100	100	0	1,000
TOTAL EXPENDITURES	0	0	10,045	12,435	13,313	12,437	25,830	14,665	19,589	14,601	20,557	21,435	0	164,907

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-820	-1,270	-1,243	-202	0	-652	-24	0	0	0	0	-4,211
RESERVE FUND	0	0	-9,224	-11,165	-12,070	-12,235	-25,830	-14,013	-19,565	-14,601	-20,557	-21,435	0	-160,695
SUB-TOTAL RATE SUPPORTED	0	0	-10,044	-12,435	-13,313	-12,437	-25,830	-14,665	-19,589	-14,601	-20,557	-21,435	0	-164,906
TOTAL SOURCES OF FINANCING	0	0	-10,044	-12,435	-13,313	-12,437	-25,830	-14,665	-19,589	-14,601	-20,557	-21,435	0	-164,906

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES269321
Project Title:	SEWER RELINING
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	A. Rammeloo

Project Description:  
Annual program to extend the life of existing sewers using trenchless technologies. The program includes cured-in-place pipe (CIPP), internal spot repairs and lining of brick sewers.

Project Justification:  
Preventative maintenance using trenchless technologies that significantly extends the lifecycle of existing sewers. This program delays the high capital and social costs of excavating the right of way to replace the sewers. The cost of open cut excavation ranges from 3-10 times the cost of trenchless lining.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES269321 - SEWER RELINING

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	4,608	4,719	4,832	4,948	5,067	5,188	5,903	6,045	6,190	6,338	0	53,838
TOTAL EXPENDITURES	0	0	4,608	4,719	4,832	4,948	5,067	5,188	5,903	6,045	6,190	6,338	0	53,838

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-4,608	-4,719	-4,832	-4,948	-5,067	-5,188	-5,903	-6,045	-6,190	-6,338	0	-53,838
SUB-TOTAL RATE SUPPORTED	0	0	-4,608	-4,719	-4,832	-4,948	-5,067	-5,188	-5,903	-6,045	-6,190	-6,338	0	-53,838
TOTAL SOURCES OF FINANCING	0	0	-4,608	-4,719	-4,832	-4,948	-5,067	-5,188	-5,903	-6,045	-6,190	-6,338	0	-53,838

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES483521
Project Title:	RURAL DRAINAGE REMEDIATION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	S. Chambers

Project Description:  
An annual program for maintenance and reconstruction of municipal rural drainage infrastructure (ditches, culverts) or Municipal Drains as administered under the Drainage Act. The purpose of this project is to alleviate flooding and drainage issues on rural properties as identified and initiated by the landowners under the Drainage Act or as identified by the City's Drainage Superintendent.

Project Justification:

ES483521 - RURAL DRAINAGE REMEDIATION

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	231	237	243	248	254	261	267	273	280	286	0	2,580
TOTAL EXPENDITURES	0	0	231	237	243	248	254	261	267	273	280	286	0	2,580

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	-21	-27	-33	-38	-44	-51	-57	-63	-70	-76	0	-480
SUB-TOTAL RATE SUPPORTED	0	0	-21	-27	-33	-38	-44	-51	-57	-63	-70	-76	0	-480
PROVINCIAL GRANTS	0	0	-60	-60	-60	-60	-60	-60	-60	-60	-60	-60	0	-600
OTHER SOURCES	0	0	-150	-150	-150	-150	-150	-150	-150	-150	-150	-150	0	-1,500
SUB-TOTAL NON-RATE SUPPORTED	0	0	-210	-210	-210	-210	-210	-210	-210	-210	-210	-210	0	-2,100
TOTAL SOURCES OF FINANCING	0	0	-231	-237	-243	-248	-254	-261	-267	-273	-280	-286	0	-2,580



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES508421
Project Title:	WWTP OPTIMIZATION & RENEWAL
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	G. Gauld

Project Description:  
Replacement of end of life or non-repairable mechanical, electrical and instrumentation equipment to maintain and upgrade current operations.

Project Justification:  
To maintain efficient operations and effluent quality by replacing end of life or obsolete equipment.

ES508421 - WWTP OPTIMIZATION & RENEWAL

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	786	823	2,256	899	1,051	979	1,021	1,063	1,107	1,151	0	11,136
VEHICLE & EQUIPMENT	0	0	750	750	750	750	750	750	750	750	750	750	0	7,500
TOTAL EXPENDITURES	0	0	1,536	1,573	3,006	1,649	1,801	1,729	1,771	1,813	1,857	1,901	0	18,636

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	-1,536	-1,573	-3,006	-1,649	-1,801	-1,729	-1,771	-1,813	-1,857	-1,901	0	-18,636
SUB-TOTAL RATE SUPPORTED	0	0	-1,536	-1,573	-3,006	-1,649	-1,801	-1,729	-1,771	-1,813	-1,857	-1,901	0	-18,636
TOTAL SOURCES OF FINANCING	0	0	-1,536	-1,573	-3,006	-1,649	-1,801	-1,729	-1,771	-1,813	-1,857	-1,901	0	-18,636

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES515021
Project Title:	PUMPING STATION OPTIMIZATION & RENEWAL
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Life Cycle Renewal
Project/Program Manager:	G. Gauld

**Project Description:**  
An annual program to monitor the City's 36 pumping stations, replace/upgrade various components such as hydraulic, structural, mechanical, electrical and instrumentation equipment and review of tributary flows to ensure adequate future capacity is available.

**Project Justification:**  
This project supports the lifecycle renewal of the City's 36 existing pumping stations. This renewal includes the replacement of equipment and the optimization of existing pumping stations to allow for trouble free operation and reduce flow bypass.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES515021 - PUMPING STATION OPTIMIZATION & RENEWAL

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	20	20	20	20	20	20	20	20	20	20	0	200
CONSTRUCTION	0	0	410	420	431	442	453	464	476	488	500	512	0	4,596
TOTAL EXPENDITURES	0	0	430	440	451	462	473	484	496	508	520	532	0	4,796

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-430	-440	-451	-462	-473	-484	-496	-508	-520	-532	0	-4,796
SUB-TOTAL RATE SUPPORTED	0	0	-430	-440	-451	-462	-473	-484	-496	-508	-520	-532	0	-4,796
TOTAL SOURCES OF FINANCING	0	0	-430	-440	-451	-462	-473	-484	-496	-508	-520	-532	0	-4,796

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2205
Project Title:	BYRON PS UPGRADES
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
Increase pumping capacity at the Byron pumping station. 100% Growth related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
The Byron pumping station will require additional capacity to accept flows from the new Colonel Talbot station and growth in the Byron area. This additional capacity will need to be online in the near term as flows from Colonel Talbot increase.

# ES2205 - BYRON PS UPGRADES

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2475
Project Title:	DINGMAN CREEK MAIN CHANNEL REMEDIATION WORKS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

**Project Description:**  
To undertake remediation to minimize flooding/erosion, improve conveyance and eliminate existing deficiencies within the main channel of Dingman Creek. Construct a water resources management system to meet the stormwater requirements associated with land use changes and optimize the performance of this system to meet the Provincial water quality and flood control objectives. 14% Growth Related (14% DC Rate Supported). Growth splits are consistent with the 2021 Development Charge Study.

**Project Justification:**  
Project identifies remediation works to address the existing system deficiencies and provide the required stormwater mitigation measures (flood, erosion and water quality) for the existing and future conditions.

ES2475 - DINGMAN CREEK MAIN CHANNEL REMEDIATION WORKS

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	300	-300	0	0	0	0	0	700	0	0	0	0	0	700
LAND ACQUISITION	200	-200	0	0	0	0	0	0	0	0	0	0	0	0
CONSTRUCTION	600	-600	0	0	0	0	0	1,894	2,656	2,720	2,785	0	0	10,055
TOTAL EXPENDITURES	1,100	-1,100	0	0	0	0	0	2,594	2,656	2,720	2,785	0	0	10,755

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-946	946	0	0	0	0	0	-2,231	-2,284	-2,339	-2,395	0	0	-9,249
SUB-TOTAL RATE SUPPORTED	-946	946	0	0	0	0	0	-2,231	-2,284	-2,339	-2,395	0	0	-9,249
RESERVE FUND	-154	154	0	0	0	0	0	0	0	0	0	0	0	0
DEBENTURE	0	0	0	0	0	0	0	-363	-372	-381	-390	0	0	-1,506
SUB-TOTAL NON-RATE SUPPORTED	-154	154	0	0	0	0	0	-363	-372	-381	-390	0	0	-1,506
TOTAL SOURCES OF FINANCING	-1,100	1,100	0	0	0	0	0	-2,594	-2,656	-2,720	-2,785	0	0	-10,755



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2499
Project Title:	WHITE OAKS CHANNEL COMPLETE CORRIDOR (WHARNCLIFFE TO WHITE OAKS 3E)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Construction of a "complete corridor" channel to support sustainable neighbourhood growth along the White Oak Drain from Wharncliffe Road to White Oaks SWM 3 East. 68.1% Growth Related (68.1% DC Rate Supported) Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aqufor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES2499 - WHITE OAKS CHANNEL COMPLETE CORRIDOR (WHARNCLIFFE TO WHITE OAKS 3E)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	2,470	0	0	0	0	0	0	0	2,470
CONSTRUCTION	0	0	0	0	0	0	5,805	0	0	0	0	0	0	5,805
TOTAL EXPENDITURES	0	0	0	0	0	2,470	5,805	0	0	0	0	0	0	8,275

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	-788	-1,852	0	0	0	0	0	0	-2,640
SUB-TOTAL RATE SUPPORTED	0	0	0	0	0	-788	-1,852	0	0	0	0	0	0	-2,640
DEBENTURE	0	0	0	0	0	-1,682	-3,953	0	0	0	0	0	0	-5,635
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	-1,682	-3,953	0	0	0	0	0	0	-5,635
TOTAL SOURCES OF FINANCING	0	0	0	0	0	-2,470	-5,805	0	0	0	0	0	0	-8,275

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2605
Project Title:	MUD CREEK EAST BRANCH PH 3 (OXFORD TO CP RAIL)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

**Project Description:**  
To undertake remediation works to minimize and eliminate the existing erosion, conveyance and flooding deficiencies for the portion of the Mud Creek system between CN Rail and Oxford Street, all within the Mud Creek East subwatershed. Works include natural channel reconstruction north of Oxford Street to CP Rail. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study. Current budget timing reflects GMIS timing. The design and construction of this project will be Developer led.

**Project Justification:**  
This project is necessary to facilitate mixed-use residential growth north of Oxford Street. Included in the 2019 Development Charges Study.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES2605 - MUD CREEK EAST BRANCH PH 3 (OXFORD TO CP RAIL)

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2701
Project Title:	SWM CONTINGENCY FACILITY
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
The purpose of this project is to fund unforeseen Stormwater Management Facilities that may be required to service new growth. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
2019 Development Charges Study

## ES2701 - SWM CONTINGENCY FACILITY

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3022
Project Title:	OLD OAK 2 SWM FACILITY
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake the design and construction of the the Old Oak SWM facility and associated works to service proposed development growth in the vicinity of the White Oak and Dingman Drive area. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
The budget for the Old Oak SWM Facility was assigned to a SWM facility serving the area south of Exeter Road and northeast of intersection of White Oak and Dingman Drive by Council resolution related to redesignation of formerly Industrial designated lands. The facility is required to provide storm/drainage and SWM servicing for the total identified drainage area to support the land development in the area. Timing of facility is tentative only and to be determined through future Growth Management process (GMIS).

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES3022 - OLD OAK 2 SWM FACILITY

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	353	0	0	0	0	0	353
LAND ACQUISITION	890	0	0	0	0	0	0	0	0	0	0	0	0	890
CONSTRUCTION	0	0	0	0	0	0	0	0	2,050	0	0	0	0	2,050
TOTAL EXPENDITURES	890	0	0	0	0	0	0	353	2,050	0	0	0	0	3,293

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-890	0	0	0	0	0	0	0	0	0	0	0	0	-890
DEBENTURE	0	0	0	0	0	0	0	-353	-2,050	0	0	0	0	-2,403
SUB-TOTAL NON-RATE SUPPORTED	-890	0	0	0	0	0	0	-353	-2,050	0	0	0	0	-3,293
TOTAL SOURCES OF FINANCING	-890	0	0	0	0	0	0	-353	-2,050	0	0	0	0	-3,293



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3202
Project Title:	DINGMAN #2 REMEDIATION SWM FLOOD CONTROL FACILITY
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake remediation works to minimize and eliminate existing flooding, erosion and conveyance capacity deficiencies for the Dingman Creek System and to construct water resources remediation/reclamation system. 15% Growth Related (15% DC Rate Supported). Growth splits are consistent with 2019 Development Charge Study.

Project Justification:  
Project identifies remediation works to minimize and eliminate the existing water resources management problems and optimize the performance of Dingman Creek as well as provide the required Stormwater Management mitigation measures, flood and erosion for the existing and future systems.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

# ES3202 - DINGMAN #2 REMEDIATION SWM FLOOD CONTROL FACILITY

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3206
Project Title:	STORMWATER FUTURE DEVELOPMENT STUDIES 2024
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake an update the Development Charges Study 2024 for servicing growth for storm/drainage and SWM servicing. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charge Study.

Project Justification:  
Project is required to update the City's Stormwater Master Plan completed over the last 5 years and identify future works to support growth (for the next 20 years). Project is also required to support the future Development Charges Background Study every 5 years as a result of the Development Charges Act.

ES3206 - STORMWATER FUTURE DEVELOPMENT STUDIES 2024

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3207
Project Title:	STORMWATER FUTURE DEVELOPMENT STUDIES 2029
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
This study will fund the 2029 Development Charge Study Update for Stormwater Management infrastructure required to service new growth. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with 2019 Development Charges Study.

Project Justification:  
Identified in the 2019 DC Study.

ES3207 - STORMWATER FUTURE DEVELOPMENT STUDIES 2029

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	0	354	0	0	0	0	354
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	354	0	0	0	0	354

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	0	0	0	-354	0	0	0	0	-354
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	-354	0	0	0	0	-354
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	-354	0	0	0	0	-354

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3208
Project Title:	SOUTHEAST AREA MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake the southeast area Municipal Class Environmental Assessment Study(s) to identify the recommended storm/drainage and Stormwater management servicing workings for proposed development growth. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with 2019 Development Charges Study.

Project Justification:  
Project needed to identify the required storm/drainage and SWM servicing option for future development in the southeast quadrant of the city.

# ES3208 - SOUTHEAST AREA MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3221
Project Title:	THORNICROFT DRAIN NATURAL CHANNEL IMPROVEMENTS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Systemwide Channel improvement project to support sustainable neighbourhood growth along the Thornicroft Drain from Southdale Road to Hamlyn Road. Includes system-wide erosion, hydrogeological, and flow conveyance studies to inform neighbourhood growth. 42% Growth (42% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aqufor Beech, 2020).

ES3221 - THORNICROFT DRAIN NATURAL CHANNEL IMPROVEMENTS

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	400	0	0	0	330	0	0	0	0	0	0	730
CONSTRUCTION	0	0	0	0	0	0	0	3,989	0	0	0	0	0	3,989
TOTAL EXPENDITURES	0	0	400	0	0	0	330	3,989	0	0	0	0	0	4,719

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	-232	0	0	0	-191	-2,314	0	0	0	0	0	-2,737
SUB-TOTAL RATE SUPPORTED	0	0	-232	0	0	0	-191	-2,314	0	0	0	0	0	-2,737
RESERVE FUND	0	0	-168	0	0	0	0	0	0	0	0	0	0	-168
DEBENTURE	0	0	0	0	0	0	-139	-1,675	0	0	0	0	0	-1,814
SUB-TOTAL NON-RATE SUPPORTED	0	0	-168	0	0	0	-139	-1,675	0	0	0	0	0	-1,982
TOTAL SOURCES OF FINANCING	0	0	-400	0	0	0	-330	-3,989	0	0	0	0	0	-4,719

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES4416
Project Title:	WASTEWATER FUTURE DEVELOPMENT CHARGE STUDIES 2024
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
To undertake the Future Development Charge Study in 2024. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with 2019 Development Charges Study.

Project Justification:  
Project is required to update the City's Wastewater Master Plan completed over the last 5 years and identify future works to support growth (for the next 20 years). Project is also required to support the future Development Charges Study every 5 years as a result of the Development Charges Act.

ES4416 - WASTEWATER FUTURE DEVELOPMENT CHARGE STUDIES 2024

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES4417
Project Title:	WASTEWATER FUTURE DEVELOPMENT CHARGE STUDIES 2029
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
To undertake the Future Development Charge Study in 2029. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with 2019 Development Charges Study.

Project Justification:  
These engineering studies provide growth related information for all infrastructure projects required to facilitate development and support the calculation of development charge rates for the 2029 DC By-law.

ES4417 - WASTEWATER FUTURE DEVELOPMENT CHARGE STUDIES 2029

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	0	354	0	0	0	0	354
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	354	0	0	0	0	354

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	0	0	0	-354	0	0	0	0	-354
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	-354	0	0	0	0	-354
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	-354	0	0	0	0	-354

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5010
Project Title:	GREENWAY EXPANSION STUDIES
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
This project will focus on the next major Greenway expansion. 71% Growth related (71% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
The next major Greenway expansion will need to be online within the next 20 years. In addition to adding new capacity the project may have to replace existing capacity with new technology.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5010 - GREENWAY EXPANSION STUDIES

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	250	0	0	0	0	0	0	0	0	0	0	0	250
CONSTRUCTION	0	0	0	0	0	605	0	0	0	0	0	0	0	605
TOTAL EXPENDITURES	0	250	0	0	0	605	0	0	0	0	0	0	0	855

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	-73	0	0	0	-175	0	0	0	0	0	0	0	-248
SUB-TOTAL RATE SUPPORTED	0	-73	0	0	0	-175	0	0	0	0	0	0	0	-248
RESERVE FUND	0	-178	0	0	0	-429	0	0	0	0	0	0	0	-607
SUB-TOTAL NON-RATE SUPPORTED	0	-178	0	0	0	-429	0	0	0	0	0	0	0	-607
TOTAL SOURCES OF FINANCING	0	-251	0	0	0	-604	0	0	0	0	0	0	0	-855



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5018
Project Title:	GREENWAY INCINERATOR UPGRADE
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
New Incinerator required to process sludge. The existing incinerator will have reached it's life expectancy and require replacement. 27.6% Growth related (27.6% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
The current Greenway incinerator will be at capacity in approximately 2033; the current unit was commissioned in 1988 and will have been rebuilt twice by this time. The City will need to replace the existing unit or replace it with an alternate technology/system. There may also be an option to continue using the existing incinerator and augment its capacity with another technology. Relocating the biosolids disposal system to an alternate site especially if the long term plan/capacity for Greenway changes may also be a long term option.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5018 - GREENWAY INCINERATOR UPGRADE

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	576	0	0	0	0	0	576
CONSTRUCTION	0	0	0	0	0	0	0	0	0	0	0	0	106,330	106,330
TOTAL EXPENDITURES	0	0	0	0	0	0	0	576	0	0	0	0	106,330	106,906

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	0	0	-417	0	0	0	0	-76,983	-77,400
SUB-TOTAL RATE SUPPORTED	0	0	0	0	0	0	0	-417	0	0	0	0	-76,983	-77,400
RESERVE FUND	0	0	0	0	0	0	0	-159	0	0	0	0	0	-159
DEBENTURE	0	0	0	0	0	0	0	0	0	0	0	0	-29,347	-29,347
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	-159	0	0	0	0	-29,347	-29,506
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	-576	0	0	0	0	-106,330	-106,906

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5132
Project Title:	EAST PARK PS UPGRADE
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
Expand and upgrade existing pumping station to handle additional flow of 18.2 MLD due to industrial growth in southeast London. 100% Growth Related (96.1% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
Station expansion required to allow for continued growth in the City of London's industrial park.

# ES5132 - EAST PARK PS UPGRADE

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5169
Project Title:	OXFORD WWTP EXPANSION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
This project will focus on optimizing the existing membrane technology at the Oxford Plant. 100% Growth related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
Suez has increased the capacity of their membrane systems as installed at the Oxford plant which will allow the capacity of the plant to be increased, possible in multiple stages. These upgrades are achieved by replacing the existing membrane modules with new, high surface area modules. It is important to note that the current "old technology" membranes will be near the end of their service life when capacity upgrades are required at this plant. It will be critical to have the design for the upgraded system complete prior to the "end of life" of the old modules to avoid throwing away new "old tech" modules so new tech modules can be installed to provide the needed capacity. The new capacity will need to be online by approximately 2032.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

# ES5169 - OXFORD WWTP EXPANSION

### Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	500	0	0	0	0	0	0	0	0	0	0	0	500
CONSTRUCTION	0	0	0	0	0	0	0	0	0	0	0	0	13,292	13,292
<b>TOTAL EXPENDITURES</b>	<b>0</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,292</b>	<b>13,792</b>

### Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	-500	0	0	0	0	0	0	0	0	0	0	-13,292	-13,792
SUB-TOTAL NON-RATE SUPPORTED	0	-500	0	0	0	0	0	0	0	0	0	0	-13,292	-13,792
<b>TOTAL SOURCES OF FINANCING</b>	<b>0</b>	<b>-500</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-13,292</b>	<b>-13,792</b>

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5170
Project Title:	COLONEL TALBOT PS UPGRADE
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
Colonel Talbot pumping station capacity increase. 100% Growth related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
The Colonel Talbot pumping station will need additional capacity to be online in 2028 to accommodate growth.

ES5170 - COLONEL TALBOT PS UPGRADE

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	0	0	100	0	0	0	100
CONSTRUCTION	0	0	0	0	0	0	0	0	0	504	0	0	0	504
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	0	604	0	0	0	604

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	0	0	0	0	-604	0	0	0	-604
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	0	-604	0	0	0	-604
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	0	-604	0	0	0	-604



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5171
Project Title:	DINGMAN CREEK PS PEAK SHAVING
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
This project will add additional storage capacity at the Dingman Creek Pumping Station to allow peak shaving and additional wet weather storage capacity. 100% Growth related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
This project will add storage capacity at the Dingman Creek pumping station to help reduce overflows at Dingman in addition to shaving daily and wet weather peaks from this station to Greenway. It may also be needed to store flows and relieve capacity constraints in the Gordon Avenue trunk sewer to Greenway.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5171 - DINGMAN CREEK PS PEAK SHAVING

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	150	0	0	161	0	0	0	0	0	0	0	0	311
CONSTRUCTION	0	0	0	0	0	0	7,881	0	0	0	0	0	0	7,881
TOTAL EXPENDITURES	0	150	0	0	161	0	7,881	0	0	0	0	0	0	8,192

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	-150	0	0	-161	0	-7,881	0	0	0	0	0	0	-8,192
SUB-TOTAL NON-RATE SUPPORTED	0	-150	0	0	-161	0	-7,881	0	0	0	0	0	0	-8,192
TOTAL SOURCES OF FINANCING	0	-150	0	0	-161	0	-7,881	0	0	0	0	0	0	-8,192

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5233
Project Title:	VAUXHALL EXPANSION CAPACITY UPGRADES
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
Project provides expanded capacity for the London Psychiatric Hospital Lands Secondary Plan area. 50% growth (50% DC Rate Supported). Growth splits are consistent with 2019 Development Charges Study.

Project Justification:  
Current sewershed considered built-out. This would allow for intensification/development of psych hospital lands.

## ES5233 - VAUXHALL EXPANSION CAPACITY UPGRADES

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5250
Project Title:	SS15B TALBOT GROWTH AREA GREENWAY PCP SEWERSHED
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
Construction of a 750mm trunk sanitary sewer from the Colonel Talbot Pumping Station. 100% Growth Related (100% DC Rate Supported). Growth Splits are consistent with the 2019 Development Charges Study.

Project Justification:  
This gravity sewer will allow flows beyond that of the capacity of the Colonel Talbot PS to flow by gravity toward the Dingman Pumping Station. It also allows for system flexibility, as flows can be sent to either the Oxford WWTP or Greenway WWTP once constructed.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5250 - SS15B TALBOT GROWTH AREA GREENWAY PCP SEWERSHED

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	489	0	0	0	0	0	0	0	489
CONSTRUCTION	0	0	0	0	0	0	2,837	0	0	0	0	0	0	2,837
TOTAL EXPENDITURES	0	0	0	0	0	489	2,837	0	0	0	0	0	0	3,326

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	-489	-2,837	0	0	0	0	0	0	-3,326
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	-489	-2,837	0	0	0	0	0	0	-3,326
TOTAL SOURCES OF FINANCING	0	0	0	0	0	-489	-2,837	0	0	0	0	0	0	-3,326

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5431
Project Title:	ADELAIDE EXPANSION STUDIES
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	G. Gauld

Project Description:  
Phase II includes addition of aerated and final clarifier tanks and upgrading process operations in order to provide servicing for growth while complying with MOE requirements. 81% Growth Related. (81% DC Rate Supported). Growth splits are consistent with 2019 Development Charge Study.

Project Justification:  
Transfer of flows from the Medway Pump Station to the Adelaide Wastewater Treatment Plant allows for continued growth in areas tributary to Greenway Wastewater Treatment Plant. Increase in hydraulic capacity also allows for continued growth in areas tributary to the Adelaide plant. Upgrades required to allow for future growth related development and to comply with more stringent MOE requirements. Phase II expansion with existing Phase I waste thickening will increase capacity by 2.0 mgd.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5431 - ADELAIDE EXPANSION STUDIES

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	576	0	0	0	0	0	576
CONSTRUCTION	0	0	0	0	0	0	0	0	0	0	0	0	94,941	94,941
TOTAL EXPENDITURES	0	0	0	0	0	0	0	576	0	0	0	0	94,941	95,517

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	0	0	0	0	0	-18,039	-18,039
RESERVE FUND	0	0	0	0	0	0	0	-110	0	0	0	0	0	-110
SUB-TOTAL RATE SUPPORTED	0	0	0	0	0	0	0	-110	0	0	0	0	-18,039	-18,149
RESERVE FUND	0	0	0	0	0	0	0	-467	0	0	0	0	0	-467
DEBENTURE	0	0	0	0	0	0	0	0	0	0	0	0	-76,902	-76,902
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	-467	0	0	0	0	-76,902	-77,369
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	-577	0	0	0	0	-94,941	-95,518



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ID1057
Project Title:	INDUSTRIAL WASTEWATER SERVICING WORKS PARENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	M. Henderson

Project Description:  
Sanitary servicing of future light and general industrial land to provide an adequate inventory of large block 'shovel ready' land in strategic locations. Project coordinated with other ILDS servicing accounts (Internal Servicing-ID1150, Storm Servicing-ID1090 SWM-ID2095, External Transportation Servicing-ID2169 and Water-ID2195). 100% Growth related (100% DC Rate Supported) Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
To provide economic growth opportunities by servicing strategic lands to accommodate current and future industrial land requirements as per the City's 2014 Industrial Land Development Strategy. Scope and timing of individual projects is subject to land acquisitions.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ID1057 - INDUSTRIAL WASTEWATER SERVICING WORKS PARENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	1,000	0	150	100	0	97	0	50	0	0	0	0	0	1,397
CONSTRUCTION	5,000	2,250	0	4,000	0	2,000	0	0	0	0	2,000	8,290	0	23,540
TOTAL EXPENDITURES	6,000	2,250	150	4,100	0	2,097	0	50	0	0	2,000	8,290	0	24,937

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-1,000	0	0	0	0	0	0	0	0	0	0	0	0	-1,000
DEBENTURE	-5,000	-2,250	-150	-4,100	0	-2,097	0	-50	0	0	-2,000	-8,290	0	-23,937
SUB-TOTAL NON-RATE SUPPORTED	-6,000	-2,250	-150	-4,100	0	-2,097	0	-50	0	0	-2,000	-8,290	0	-24,937
TOTAL SOURCES OF FINANCING	-6,000	-2,250	-150	-4,100	0	-2,097	0	-50	0	0	-2,000	-8,290	0	-24,937

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ID1090
Project Title:	INDUSTRIAL STORM TRUNK SEWER WORKS PARENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	M. Henderson

Project Description:  
Storm servicing of future light and general industrial land to provide an adequate inventory of large block 'shovel ready' land in strategic locations. Project coordinated with other ILDS servicing accounts (Internal Servicing-ID1150, Wastewater-ID1057, SWM-ID2095, External Transportation Servicing-ID2169 and Water-ID2195). 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
Provide economic growth opportunities by servicing strategic lands to accommodate current and future industrial land requirements as per the City's 2014 Industrial Land Development Strategy. Scope and timing of individual projects is subject to land acquisition.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ID1090 - INDUSTRIAL STORM TRUNK SEWER WORKS PARENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	273	50	100	0	0	50	0	67	0	0	0	0	0	540
CONSTRUCTION	1,460	1,000	0	2,000	0	350	0	0	1,250	0	0	5,400	0	11,460
TOTAL EXPENDITURES	1,733	1,050	100	2,000	0	400	0	67	1,250	0	0	5,400	0	12,000

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-600	-1,050	-100	0	0	-400	0	-67	0	0	0	-5,400	0	-7,617
DEBENTURE	-1,133	0	0	-2,000	0	0	0	0	-1,250	0	0	0	0	-4,383
SUB-TOTAL NON-RATE SUPPORTED	-1,733	-1,050	-100	-2,000	0	-400	0	-67	-1,250	0	0	-5,400	0	-12,000
TOTAL SOURCES OF FINANCING	-1,733	-1,050	-100	-2,000	0	-400	0	-67	-1,250	0	0	-5,400	0	-12,000

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ID2095
Project Title:	INDUSTRIAL SWM PONDS PARENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	M. Henderson

**Project Description:**  
SWM servicing of future light and general industrial land to provide an adequate inventory of large block 'shovel ready' land in strategic locations. Project coordinated with other ILDS servicing accounts (Internal Servicing-ID1150, Sanitary-ID1057, Storm-ID1090, External Transportation Servicing-ID2169 and Water-ID2195). 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

**Project Justification:**  
Provide economic growth opportunities by servicing strategic lands to accommodate current and future industrial land requirements as per the City's 2014 Industrial Land Development Strategy. Scope and timing of individual projects is subject to land acquisition.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ID2095 - INDUSTRIAL SWM PONDS PARENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	1,424	-845	0	252	0	535	0	0	0	252	0	252	0	1,870
CONSTRUCTION	5,206	-3,759	0	5,000	0	8,250	0	0	0	5,000	0	5,000	0	24,697
CITY RELATED	40	0	0	0	0	0	0	0	0	0	0	0	0	40
TOTAL EXPENDITURES	6,670	-4,604	0	5,252	0	8,785	0	0	0	5,252	0	5,252	0	26,607

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-2,358	293	0	0	0	0	0	0	0	0	0	0	0	-2,065
DEBENTURE	-4,311	4,311	0	-5,252	0	-8,785	0	0	0	-5,252	0	-5,252	0	-24,541
SUB-TOTAL NON-RATE SUPPORTED	-6,669	4,604	0	-5,252	0	-8,785	0	0	0	-5,252	0	-5,252	0	-26,606
TOTAL SOURCES OF FINANCING	-6,669	4,604	0	-5,252	0	-8,785	0	0	0	-5,252	0	-5,252	0	-26,606

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES302519
Project Title:	WASTEWATER SERVICING BUILT AREA WORKS (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
This project will fund works in the Built Area which replace existing infrastructure and provide a regional benefit to growth.

Project Justification:  
Maintains the principle that Growth pays for Growth, even where existing infrastructure exists.

ES302519 - WASTEWATER SERVICING BUILT AREA WORKS (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	300	0	0	0	0	0	0	0	0	0	0	0	0	300
CONSTRUCTION	2,047	2,347	2,403	2,461	2,520	2,580	2,642	2,705	2,770	2,837	1,245	1,275	11,364	39,196
TOTAL EXPENDITURES	2,347	2,347	2,403	2,461	2,520	2,580	2,642	2,705	2,770	2,837	1,245	1,275	11,364	39,496

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-1,464	-1,464	-1,499	-1,535	-1,572	-1,610	-1,649	-1,688	-1,729	-1,770	-777	-796	-7,092	-24,645
SUB-TOTAL RATE SUPPORTED	-1,464	-1,464	-1,499	-1,535	-1,572	-1,610	-1,649	-1,688	-1,729	-1,770	-777	-796	-7,092	-24,645
RESERVE FUND	-882	-882	-904	-925	-947	-70	0	-1,017	-1,042	-1,067	-468	-479	-4,274	-12,957
DEBENTURE	0	0	0	0	0	-900	-993	0	0	0	0	0	0	-1,893
SUB-TOTAL NON-RATE SUPPORTED	-882	-882	-904	-925	-947	-970	-993	-1,017	-1,042	-1,067	-468	-479	-4,274	-14,850
TOTAL SOURCES OF FINANCING	-2,346	-2,346	-2,403	-2,460	-2,519	-2,580	-2,642	-2,705	-2,771	-2,837	-1,245	-1,275	-11,366	-39,495



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES320919
Project Title:	STORMWATER UNIDENTIFIED EA ADDENDUMS (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake Addendum(s) to the existing accepted Municipal Class EA Studies for storm/drainage and SWM servicing works that need to be changed/modified. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with 2019 Development Charge Study.

Project Justification:  
Project needed to incorporate the proposed changes to the previously recommended servicing option for storm/drainage and SWM servicing.

ES320919 - STORMWATER UNIDENTIFIED EA ADDENDUMS (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	120	120	123	126	129	132	135	138	142	145	0	0	0	1,310
TOTAL EXPENDITURES	120	120	123	126	129	132	135	138	142	145	0	0	0	1,310

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-120	-120	-123	-126	-129	-132	-135	-138	-142	-145	0	0	0	-1,310
SUB-TOTAL NON-RATE SUPPORTED	-120	-120	-123	-126	-129	-132	-135	-138	-142	-145	0	0	0	-1,310
TOTAL SOURCES OF FINANCING	-120	-120	-123	-126	-129	-132	-135	-138	-142	-145	0	0	0	-1,310

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES514519
Project Title:	WASTEWATER INTERNAL OVERSIZING SUBSIDY (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
Annual Program to provide a subsidy to developers who are installing oversized sanitary sewers to service external lands. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with 2019 Development Charge Study.

Project Justification:  
Sewers that are built within site plans and subdivisions sometimes are required to be larger in diameter than needed in order to service external lands. The additional cost of oversizing is covered by this subsidy.

ES514519 - WASTEWATER INTERNAL OVERSIZING SUBSIDY (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	353	353	361	370	379	388	397	407	416	426	146	149	1,329	5,474
TOTAL EXPENDITURES	353	353	361	370	379	388	397	407	416	426	146	149	1,329	5,474

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-353	-353	-361	-370	-379	-388	0	-407	-416	-426	-146	-149	-1,329	-5,077
DEBENTURE	0	0	0	0	0	0	-397	0	0	0	0	0	0	-397
SUB-TOTAL NON-RATE SUPPORTED	-353	-353	-361	-370	-379	-388	-397	-407	-416	-426	-146	-149	-1,329	-5,474
TOTAL SOURCES OF FINANCING	-353	-353	-361	-370	-379	-388	-397	-407	-416	-426	-146	-149	-1,329	-5,474

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES514819
Project Title:	WASTEWATER STRATEGIC LINKS (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
Annual program to fund sewers which serve growth areas; are within or cross significant roads, parks, or abut natural areas; and/or within an existing right-of-way. 90% Growth related (90% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
The most common application of strategic sewers is to provide servicing to potential growth areas during arterial road widening projects. These potential growth sites may be smaller vacant land greenfield sites or locations with the potential for land consolidation and intensification based development. The construction of these sewers will be coordinated with the timing of the arterial road projects, thereby eliminating the restoration costs and optimizing the development potential of the area.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES514819 - WASTEWATER STRATEGIC LINKS (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	60	273	0	0	0	0	0	0	0	0	0	0	0	333
CONSTRUCTION	606	5,958	375	384	393	403	412	422	432	443	453	464	4,137	14,882
TOTAL EXPENDITURES	666	6,231	375	384	393	403	412	422	432	443	453	464	4,137	15,215

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-67	-607	-37	-38	-39	-40	-41	-42	-43	-44	-45	-46	-415	-1,504
SUB-TOTAL RATE SUPPORTED	-67	-607	-37	-38	-39	-40	-41	-42	-43	-44	-45	-46	-415	-1,504
RESERVE FUND	-600	-5,460	-337	-346	-354	-362	0	-380	-389	-398	-408	-418	-3,724	-13,176
DEBENTURE	0	0	0	0	0	0	-371	0	0	0	0	0	0	-371
OTHER SOURCES	0	-164	0	0	0	0	0	0	0	0	0	0	0	-164
SUB-TOTAL NON-RATE SUPPORTED	-600	-5,624	-337	-346	-354	-362	-371	-380	-389	-398	-408	-418	-3,724	-13,711
TOTAL SOURCES OF FINANCING	-667	-6,231	-374	-384	-393	-402	-412	-422	-432	-442	-453	-464	-4,139	-15,215

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES540419
Project Title:	BUILT AREA SPECIFIC STUDIES (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	A. Rammeloo

Project Description:  
Assignment to evaluate sanitary servicing in specific areas in the core. 100% Growth related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
Project to fund justification of sanitary servicing built area works during the 2019-2023 DC period.

## ES540419 - BUILT AREA SPECIFIC STUDIES (2019-2023)

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES542519
Project Title:	INTERIM WORKS AS IDENTIFIED IN EAs (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake the required preliminary of storm/drainage and SWM water resources evaluation of existing and future conditions to assess the requirement for the Interim Works identified in EA Studies. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
The proposed interim servicing works will be to establishing the storm/drainage and SWM identified in the EA Studies to support the development growth.

ES542519 - INTERIM WORKS AS IDENTIFIED IN EAs (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	200	200	205	210	215	220	225	231	236	242	0	0	0	2,184
TOTAL EXPENDITURES	200	200	205	210	215	220	225	231	236	242	0	0	0	2,184

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-200	-200	-205	-210	-215	-220	-225	-231	-236	-242	0	0	0	-2,184
SUB-TOTAL NON-RATE SUPPORTED	-200	-200	-205	-210	-215	-220	-225	-231	-236	-242	0	0	0	-2,184
TOTAL SOURCES OF FINANCING	-200	-200	-205	-210	-215	-220	-225	-231	-236	-242	0	0	0	-2,184

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES542719
Project Title:	PRE-ASSUMPTION MONITORING (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake the required SWM water quality monitoring to proceed with the city's assumption of SWMF. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
SWM Facilities for water quality/quantity are required by the MOECP's Environmental Compliance Approval obligations.

ES542719 - PRE-ASSUMPTION MONITORING (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	200	200	205	210	215	220	225	231	236	242	0	0	0	2,184
TOTAL EXPENDITURES	200	200	205	210	215	220	225	231	236	242	0	0	0	2,184

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-200	-200	-205	-210	-215	-220	-225	-231	-236	-242	0	0	0	-2,184
SUB-TOTAL NON-RATE SUPPORTED	-200	-200	-205	-210	-215	-220	-225	-231	-236	-242	0	0	0	-2,184
TOTAL SOURCES OF FINANCING	-200	-200	-205	-210	-215	-220	-225	-231	-236	-242	0	0	0	-2,184

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES542919
Project Title:	STORM SWR INTERNAL OVERSIZING SUBSIDY (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To provide funding source for storm sewer oversizing claims by land developers. Claims are to be paid in accordance with the current Development Charges by-law. Rreview and approval of these claims is provided by Development Finance Division. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
To support the provision of growth servicing within newly developed areas.

ES542919 - STORM SWR INTERNAL OVERSIZING SUBSIDY (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	200	0	0	0	0	0	0	0	0	0	0	0	0	200
CONSTRUCTION	2,354	2,554	2,668	2,732	2,798	2,865	2,934	3,004	3,076	3,150	1,004	1,028	9,160	39,327
TOTAL EXPENDITURES	2,554	2,554	2,668	2,732	2,798	2,865	2,934	3,004	3,076	3,150	1,004	1,028	9,160	39,527

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-2,554	-2,554	-2,668	-2,732	-2,798	-2,865	-2,934	-3,004	-3,076	-3,150	-1,004	-1,028	-9,160	-39,527
SUB-TOTAL NON-RATE SUPPORTED	-2,554	-2,554	-2,668	-2,732	-2,798	-2,865	-2,934	-3,004	-3,076	-3,150	-1,004	-1,028	-9,160	-39,527
TOTAL SOURCES OF FINANCING	-2,554	-2,554	-2,668	-2,732	-2,798	-2,865	-2,934	-3,004	-3,076	-3,150	-1,004	-1,028	-9,160	-39,527

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES543519
Project Title:	SUBWATERSHED IMPACT MONITORING (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To conduct water quality and quantity monitoring in subwatersheds that will experience significant growth in the next 20 years, all to support requirements of comprehensive Stormwater Management Environmental Compliance Approvals that will be issued by the Ministry of Environment, Conservation and Parks. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
The immediate budget relates to the Dingman Creek subwatershed monitoring program.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES543519 - SUBWATERSHED IMPACT MONITORING (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	250	250	256	262	268	295	281	288	295	302	309	317	2,824	6,197
TOTAL EXPENDITURES	250	250	256	262	268	295	281	288	295	302	309	317	2,824	6,197

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-250	-250	-256	-262	-268	-295	-281	-288	-295	-302	-309	-317	-2,824	-6,197
SUB-TOTAL NON-RATE SUPPORTED	-250	-250	-256	-262	-268	-295	-281	-288	-295	-302	-309	-317	-2,824	-6,197
TOTAL SOURCES OF FINANCING	-250	-250	-256	-262	-268	-295	-281	-288	-295	-302	-309	-317	-2,824	-6,197



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES543619
Project Title:	STORM SEWER BUILT AREA WORKS (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To fund growth-triggered storm sewer infrastructure within the Built Area Works limits. Linked to Sanitary Sewer - Built Area Works (ES302519). 54.5% Growth Related (54.5% DC Rate Supported). Growth splits are consistent with the 2019 Development Charges Study.

Project Justification:  
To provide for growth triggered projects within the Built Area in support of Official Plan intensification policies. These areas generally include downtown, transit corridors, and arterial roads.

ES543619 - STORM SEWER BUILT AREA WORKS (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	800	0	0	0	0	0	0	0	0	0	0	0	0	800
CONSTRUCTION	4,084	4,884	5,530	5,663	5,799	5,938	6,080	6,226	6,376	6,529	2,080	2,130	18,986	80,305
TOTAL EXPENDITURES	4,884	4,884	5,530	5,663	5,799	5,938	6,080	6,226	6,376	6,529	2,080	2,130	18,986	81,105

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-2,173	-2,173	-2,461	-2,520	-2,580	-2,642	-2,706	-2,771	-2,837	-2,905	-926	-948	-8,450	-36,092
SUB-TOTAL RATE SUPPORTED	-2,173	-2,173	-2,461	-2,520	-2,580	-2,642	-2,706	-2,771	-2,837	-2,905	-926	-948	-8,450	-36,092
RESERVE FUND	-2,711	-2,711	-3,069	-3,143	-3,218	-3,296	-3,375	-3,456	0	0	0	-1,182	-10,537	-36,698
DEBENTURE	0	0	0	0	0	0	0	0	-3,539	-3,623	-1,154	0	0	-8,316
SUB-TOTAL NON-RATE SUPPORTED	-2,711	-2,711	-3,069	-3,143	-3,218	-3,296	-3,375	-3,456	-3,539	-3,623	-1,154	-1,182	-10,537	-45,014
TOTAL SOURCES OF FINANCING	-4,884	-4,884	-5,530	-5,663	-5,798	-5,938	-6,081	-6,227	-6,376	-6,528	-2,080	-2,130	-18,987	-81,106

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES543819
Project Title:	LOW IMPACT DEVELOPMENT (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

**Project Description:**  
This project supports the installation of linear low impact development features within the municipal right of way for new single family residential subdivisions, all in accordance with the local servicing policies of the 2019 Development Charges Study. Linear LIDs include third pipe systems, rain gardens, or infiltration swales. These systems support groundwater recharge and reduce the volume and peak flow of Stormwater runoff. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

**Project Justification:**  
To recognize the regional benefit of installing LID systems as part of the complete Stormwater management strategy. Included in the 2019 Development Charges Study.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES543819 - LOW IMPACT DEVELOPMENT (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	500	0	0	0	0	0	0	0	0	0	0	0	0	500
CONSTRUCTION	2,210	2,710	3,068	3,142	3,217	3,294	3,373	3,454	3,537	3,622	1,154	1,182	10,533	44,496
TOTAL EXPENDITURES	2,710	2,710	3,068	3,142	3,217	3,294	3,373	3,454	3,537	3,622	1,154	1,182	10,533	44,996

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-2,710	-2,710	-3,068	-3,142	-3,217	-3,294	-3,373	-3,454	-3,537	-3,622	-1,154	-1,182	-10,533	-44,996
SUB-TOTAL NON-RATE SUPPORTED	-2,710	-2,710	-3,068	-3,142	-3,217	-3,294	-3,373	-3,454	-3,537	-3,622	-1,154	-1,182	-10,533	-44,996
TOTAL SOURCES OF FINANCING	-2,710	-2,710	-3,068	-3,142	-3,217	-3,294	-3,373	-3,454	-3,537	-3,622	-1,154	-1,182	-10,533	-44,996

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES552019
Project Title:	COMMUNITY GROWTH TRUNK STORM SEWER WORKS (2019-2023)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To provide a fund for the provision of major trunk storm sewers along arterial roadways to support growth triggered storm sewer infrastructure. Future budget amounts to be verified through detailed engineering studies. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
To support the provision of growth servicing of development areas for projects located along arterial right-of-ways.

ES552019 - COMMUNITY GROWTH TRUNK STORM SEWER WORKS (2019-2023)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	10	0	0	0	0	0	0	0	0	0	0	0	0	10
CONSTRUCTION	642	652	299	306	314	321	329	337	345	353	39	40	359	4,336
TOTAL EXPENDITURES	652	652	299	306	314	321	329	337	345	353	39	40	359	4,346

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-652	-652	-299	-306	-314	-321	-329	-337	-345	-353	-39	-40	-359	-4,346
SUB-TOTAL NON-RATE SUPPORTED	-652	-652	-299	-306	-314	-321	-329	-337	-345	-353	-39	-40	-359	-4,346
TOTAL SOURCES OF FINANCING	-652	-652	-299	-306	-314	-321	-329	-337	-345	-353	-39	-40	-359	-4,346

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMSC7
Project Title:	SWM FACILITY-STONEY CREEK 7.1
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the proposed Stormwater Management Facility - Stoney Creek No 7.1 in accordance with the existing accepted Municipal Class Environmental Assessment Study recommended storm/drainage and SWM servicing. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
The proposed SWMF - Stoney Creek No. 7.1 is required to service the land development and minimize the erosion and flooding deficiency.

## ESSWMSC7 - SWM FACILITY-STONEY CREEK 7.1

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-MM1
Project Title:	SWM FACILITY-MURRAY MARR NO. 1
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the proposed Stormwater Management Facility - Murray Marr No. 1 in accordance with the existing accepted Municipal Class Environmental Assessment Study recommended storm/drainage and SWM servicing. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2019 Development Charge Study.

Project Justification:  
The proposed SWMF - Murray Marr #1 is required to service the land development and minimize the erosion and flooding deficiency.

ESSWM-MM1 - SWM FACILITY-MURRAY MARR NO. 1

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	0	0	0	100	0	0	100
CONSTRUCTION	0	0	0	0	0	0	0	0	0	0	3,738	0	0	3,738
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	0	0	3,838	0	0	3,838

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	0	0	0	-3,838	0	0	-3,838
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	0	0	-3,838	0	0	-3,838
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	0	0	-3,838	0	0	-3,838

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-PD5
Project Title:	SWM FACILITY- PINCOMBE DRAIN NO. 5
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the Pincombe Drain No. 5 Stormwater Management Facility and applicable servicing works in order to support the development in accordance with the completed and accepted Pincombe Drain Municipal Class Environmental Assessment (EA) Study. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
The Pincombe Drain No. 5 SWMF and associated works are required to service the proposed development within the subject area.

ESSWM-PD5 - SWM FACILITY- PINCOMBE DRAIN NO. 5

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	0	100	0	0	0	0	100
LAND ACQUISITION	0	0	0	0	0	0	0	0	143	0	0	0	0	143
CONSTRUCTION	0	0	0	0	0	0	0	0	2,000	0	0	0	0	2,000
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	2,243	0	0	0	0	2,243

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	0	-2,243	0	0	0	0	-2,243
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	-2,243	0	0	0	0	-2,243
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	-2,243	0	0	0	0	-2,243

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-WO3
Project Title:	SWM FACILITY-WHITE OAKS NO. 3 WEST
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

**Project Description:**  
To undertake design and construction of the White Oaks No. 3 Stormwater Management Facility West dry pond facility and applicable servicing works in order to support the development within the White Oaks Development Area in accordance with the Dingman Creek Stage 1 Lands to the Municipal Class EA for storm/drainage and SWM servicing works. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

**Project Justification:**  
The White Oaks SWMF No. 3 West dry pond facility and associated works are required to service the proposed development within the subject area.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

# ESSWM-WO3 - SWM FACILITY-WHITE OAKS NO. 3 WEST

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-WO4
Project Title:	SWM FACILITY-WHITE OAKS NO. 4
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the White Oaks SWMF No. 4 Stormwater Management Facility and associated works to eliminate and minimize the existing flooding and to support and service the proposed land development in accordance to the Addendum to the completed and accepted White Oak Municipal Class Environmental Assessment Study for storm/drainage and SWM servicing works. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Upon completion of ongoing Addendum to the Municipal Class EA study for the White Oak area, this SWM No. 4 will be required to be constructed in 2018.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ESSWM-WO4 - SWM FACILITY-WHITE OAKS NO. 4

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	0	0	0	0	0	0	5,195	0	0	0	0	5,195
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	5,195	0	0	0	0	5,195

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	0	-5,195	0	0	0	0	-5,195
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	-5,195	0	0	0	0	-5,195
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	-5,195	0	0	0	0	-5,195



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMPDP6
Project Title:	PINCOMBE DRAIN P6
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Stormwater Management dry pond facility to support mixed use residential/commercial growth within southwest London along the Wonderland Rd South Corridor. Services lands generally located at the southwest intersection of Wonderland Road South and Hamlyn Street. 100% Growth Related (100% DC Rate Supported) Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aquafor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

## ESSWMPDP6 - PINCOMBE DRAIN P6

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMSC10
Project Title:	SWM FACILITIES-STONEY CREEK 10
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the Stoney Creek No. 10 Stormwater Management Facility and associated works in order to support and service the development within the Stoney Creek Development Area in accordance with the completed and accepted Stoney Creek Municipal Class EA for undeveloped lands. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charge Study.

Project Justification:  
The Stoney Creek SWMF No. 10 and associated works are required to service the proposed development within the subject area.

ESSWMSC10 - SWM FACILITIES-STONEY CREEK 10

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	100	0	0	0	0	0	0	0	100
LAND ACQUISITION	0	0	0	0	0	337	0	0	0	0	0	0	0	337
CONSTRUCTION	0	0	0	0	0	0	2,538	0	0	0	0	0	0	2,538
TOTAL EXPENDITURES	0	0	0	0	0	437	2,538	0	0	0	0	0	0	2,975

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	-437	0	0	0	0	0	0	0	-437
DEBENTURE	0	0	0	0	0	0	-2,538	0	0	0	0	0	0	-2,538
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	-437	-2,538	0	0	0	0	0	0	-2,975
TOTAL SOURCES OF FINANCING	0	0	0	0	0	-437	-2,538	0	0	0	0	0	0	-2,975

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMSDE1
Project Title:	SWM FACILITY-SUNNINGDALE E1
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the proposed Stormwater Management Facility - Sunningdale No E1 in acceptance with the existing accepted Municipal Class Environmental Assessment Study. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charge Study.

Project Justification:  
The proposed SWMF Sunningdale No E1 is required to service the land development and minimize the erosion and flooding deficiency.

## ESSWMSDE1 - SWM FACILITY-SUNNINGDALE E1

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMWO3E
Project Title:	WHITE OAK SWMF 3 - EAST
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Stormwater Management dry pond facility to support neighbourhood growth within southwest London. Services new development lands generally located east of White Oak Road and south of the proposed Bradley Avenue East extension. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aqufor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ESSWMWO3E - WHITE OAK SWMF 3 - EAST

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	200	0	0	0	0	0	0	200
CONSTRUCTION	0	0	0	0	0	0	4,410	0	0	0	0	0	0	4,410
TOTAL EXPENDITURES	0	0	0	0	0	0	4,610	0	0	0	0	0	0	4,610

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	-4,610	0	0	0	0	0	0	-4,610
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	-4,610	0	0	0	0	0	0	-4,610
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	-4,610	0	0	0	0	0	0	-4,610



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-NLP3
Project Title:	SWM FACILITY-NORTH LAMBETH P3 (DINGMAN TRIBUTARY D4)
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake the required Municipal Class Environmental Assessment study, design and construction for the North London Stormwater Management Facility No. P3 and associated works to service the proposed development growth. 100% Related Growth (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
The proposed SWMF North Lambeth P3 is required to provide storm/drainage and SWM servicing for the total identified drainage area to support the land development.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ESSWM-NLP3 - SWM FACILITY-NORTH LAMBETH P3 (DINGMAN TRIBUTARY D4)

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	434	0	0	0	0	0	434
CONSTRUCTION	0	0	0	0	0	0	0	4,300	0	0	0	0	0	4,300
TOTAL EXPENDITURES	0	0	0	0	0	0	0	4,734	0	0	0	0	0	4,734

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	-4,734	0	0	0	0	0	-4,734
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	-4,734	0	0	0	0	0	-4,734
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	-4,734	0	0	0	0	0	-4,734

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-NLP6
Project Title:	SWM FACILITY-NORTH LAMBETH NO. P6
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct the North Lambeth Stormwater Management Facility P6 South dry Facility and associated works to service the proposed development. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charge Study.

Project Justification:  
The proposed North Lambeth SWMF P6 South is required to provide storm/drainage and SWM servicing for the total identified drainage area to support the land development.

ESSWM-NLP6 - SWM FACILITY-NORTH LAMBETH NO. P6

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	0	0	0	0	300	0	300
CONSTRUCTION	0	0	0	0	0	0	0	0	0	0	0	3,001	0	3,001
TOTAL EXPENDITURES	0	0	0	0	0	0	0	0	0	0	0	3,301	0	3,301

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	0	0	0	0	-3,301	0	-3,301
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	0	0	0	0	-3,301	0	-3,301
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	0	0	0	0	-3,301	0	-3,301

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMNLP2N
Project Title:	NORTH LAMBETH P2 - NORTH
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Stormwater Management dry pond facility to support neighbourhood growth within southwest London along the east side of Thornicroft Drain. Services lands generally located east of Bostwick Road, south of the proposed Bradley Avenue West extension. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aqufor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

ESSWMNLP2N - NORTH LAMBETH P2 - NORTH

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	280	0	0	0	0	0	0	280
CONSTRUCTION	0	0	0	0	0	0	2,522	0	0	0	0	0	0	2,522
TOTAL EXPENDITURES	0	0	0	0	0	0	2,802	0	0	0	0	0	0	2,802

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	-2,802	0	0	0	0	0	0	-2,802
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	-2,802	0	0	0	0	0	0	-2,802
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	-2,802	0	0	0	0	0	0	-2,802

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMNLP2S
Project Title:	SWM FACILITY-NORTH LAMBETH P2 SOUTH
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To undertake the design and construction of the North Lambeth Stormwater Management Facility P2 South dry facility and associated works to service proposed development growth. 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
The proposed North Lambeth SWMF #P2 South is required to provide storm/drainage and SWM servicing for the total identified drainage area to support the land development.

# ESSWMNLP2S - SWM FACILITY-NORTH LAMBETH P2 SOUTH

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMNLT12
Project Title:	SWM FACILITY-NORTH LAMBETH TRIBUTARY 12 DOWNSTREAM CHANNEL RECONSTRUCTION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

**Project Description:**  
Stormwater Management channel reconstruction to address potential flooding concerns and support future neighbourhood growth in the upstream catchment within southwest London. Services new development lands generally located east of Colonel Talbot Road and south of Pack Road. 13% Growth Related (13% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

**Project Justification:**  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aquafor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

# ESSWMNLT12 - SWM FACILITY-NORTH LAMBETH TRIBUTARY 12 DOWNSTREAM CHANNEL RECONSTRUCTION

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMPDP3W
Project Title:	PINCOMBE DRAIN P3-WEST
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Stormwater Management dry pond facility to support mixed use growth within southwest London along the Wonderland Rd South Corridor. Services lands generally located east of Wonderland Road South between Wharncliffe Road South and Exeter Road (west of Pincombe Drain). 100% Growth Related (100% DC Rate supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aqufor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

ESSWMPDP3W - PINCOMBE DRAIN P3-WEST

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	208	0	0	0	0	0	0	208
CONSTRUCTION	0	0	0	0	0	0	3,000	0	0	0	0	0	0	3,000
TOTAL EXPENDITURES	0	0	0	0	0	0	3,208	0	0	0	0	0	0	3,208

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	0	-708	0	0	0	0	0	0	-708
DEBENTURE	0	0	0	0	0	0	-2,500	0	0	0	0	0	0	-2,500
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	-3,208	0	0	0	0	0	0	-3,208
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	-3,208	0	0	0	0	0	0	-3,208

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMPDP4W
Project Title:	PINCOMBE DRAIN P4-WEST
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Stormwater Management dry pond facility to support mixed use/commercial growth within southwest London along the Wonderland Rd South Corridor. Services lands generally located east of Wonderland Road South between Exeter Road and Hamlyn Road (west of Pincombe Drain). 100% Growth Related (100% DC Rate Supported). Growth splits are consistent with the 2021 Development Charges Study.

Project Justification:  
Recommended by the Dingman Creek Stormwater Servicing Stage 1 Lands Schedule B Municipal Class Environmental Assessment (Aqufor Beech, 2020). Identified in the 2021 Development Charges Background Study Update.

# ESSWMPDP4W - PINCOMBE DRAIN P4-WEST

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWM-KILSE
Project Title:	SWMF 1 - KILALLY SOUTH, EAST BASIN
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
To design and construct Kilally South East Stormwater Management Facility 1 and associated works in order to service the development within the Kilally South Development Area. 100% Growth Related (100% DC Rate Supported). Growth splits are in accordance with the 2021 Development Charge Study.

Project Justification:  
The Kilally South East SWMF 1 and associated works are required to service the proposed land development within the subject area, in accordance with the completed and accepted by public and approval agencies, the 2021 Kilally Municipal Class EA.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

## ESSWM-KILSE - SWMF 1 - KILALLY SOUTH, EAST BASIN

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ESSWMKILSE2
Project Title:	SWMF 2 - KILALLY SOUTH, EAST BASIN
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Growth
Project/Program Manager:	S. Chambers

Project Description:  
Stormwater Management dry pond facility to support neighbourhood growth within northeast London. Services new development lands generally south of Kilally Road and west of Clarke Road. 100% Growth Related (100% DC Rate Supported). Growth splits are in accordance with the 2021 Development Charge Study.

Project Justification:  
Recommended by the Kilally South, East Basin EA (ERI, 2020).

ESSWMKILSE2 - SWMF 2 - KILALLY SOUTH, EAST BASIN

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	0	0	1,000	0	0	0	0	0	1,000
CONSTRUCTION	0	0	0	0	0	0	0	5,337	0	0	0	0	0	5,337
TOTAL EXPENDITURES	0	0	0	0	0	0	0	6,337	0	0	0	0	0	6,337

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	0	-6,337	0	0	0	0	0	-6,337
SUB-TOTAL NON-RATE SUPPORTED	0	0	0	0	0	0	0	-6,337	0	0	0	0	0	-6,337
TOTAL SOURCES OF FINANCING	0	0	0	0	0	0	0	-6,337	0	0	0	0	0	-6,337

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2452
Project Title:	STORMWATER MONITORING PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

**Project Description:**  
To undertake works to monitor the water quality and quantity in various watercourses and the Thames River. The monitoring information is used to evaluate the effectiveness of existing programs and provides baseline information for new programs.

**Project Justification:**  
Project identifies the monitoring program for Thames River and various watercourses (including Stoney Creek, Dingman Creek and Medway) in order to evaluate the water quality, quantity and the storm flow conveyance for these watercourses. This information Is used to understand the health and flooding risk in these watercourses and evaluate the effectiveness of current programs and support the development of future programs.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES2452 - STORMWATER MONITORING PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	2,220	280	0	0	301	0	0	323	0	0	347	0	0	3,471
CITY RELATED	20	0	0	0	0	0	0	0	0	0	0	0	0	20
TOTAL EXPENDITURES	2,240	280	0	0	301	0	0	323	0	0	347	0	0	3,491

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-2,240	-280	0	0	-301	0	0	-323	0	0	-347	0	0	-3,491
SUB-TOTAL RATE SUPPORTED	-2,240	-280	0	0	-301	0	0	-323	0	0	-347	0	0	-3,491
TOTAL SOURCES OF FINANCING	-2,240	-280	0	0	-301	0	0	-323	0	0	-347	0	0	-3,491

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2457
Project Title:	BEAVER ACTIVITY MANAGEMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

Project Description:  
Project to support the short and long-term costs related to the City of London's Human Urban Wildlife Conflict Policy: Beaver Protocol. The one-time costs include hydraulic assessments, initial construction of beaver flow devices, existing free protection, planting of beaver food trees and as a last resort resettling of the beavers using live trapping methods. The long-term costs include the inspection, operation and maintenance of the various locations once the beaver activity solution has been established.

Project Justification:  
Project supports the program to fulfill the requirements of the City of London's Human Urban Wildlife Conflict Policy: Beaver Protocol.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES2457 - BEAVER ACTIVITY MANAGEMENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	50	0	0	0	0	0	0	0	0	0	0	0	0	50
CONSTRUCTION	130	55	56	58	59	60	62	63	65	66	68	70	0	812
TOTAL EXPENDITURES	180	55	56	58	59	60	62	63	65	66	68	70	0	862

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-180	-55	-56	-58	-59	-60	-62	-63	-65	-66	-68	-70	0	-862
SUB-TOTAL RATE SUPPORTED	-180	-55	-56	-58	-59	-60	-62	-63	-65	-66	-68	-70	0	-862
TOTAL SOURCES OF FINANCING	-180	-55	-56	-58	-59	-60	-62	-63	-65	-66	-68	-70	0	-862

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2463
Project Title:	SEWER OVERFLOW INVESTIGATION AND MITIGATION PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	A. Rammeloo

Project Description:  
Funding allocation for updates to the Pollution Prevention and Control Plan (PPCP) Master Plan which provides a strategy for mitigation of sewer overflows. Funding is also allocated for the update to the City Centre Servicing Strategy (CCSS) which provides for a construction phasing strategy to separate all combined sewers in the downtown. Funding is also allocated for subsurface utility investigation in the downtown core to support future design and construction phases.

Project Justification:  
To separate combined sewers in the downtown core and mitigate sewer system overflows in the collection system.

ES2463 - SEWER OVERFLOW INVESTIGATION AND MITIGATION PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	1,487	0	0	0	0	0	0	0	0	0	0	0	0	1,487
CONSTRUCTION	0	100	102	315	0	0	0	0	354	0	0	0	0	871
CITY RELATED	13	0	0	0	0	0	0	0	0	0	0	0	0	13
TOTAL EXPENDITURES	1,500	100	102	315	0	0	0	0	354	0	0	0	0	2,371

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-1,500	-100	-102	-315	0	0	0	0	-354	0	0	0	0	-2,371
SUB-TOTAL RATE SUPPORTED	-1,500	-100	-102	-315	0	0	0	0	-354	0	0	0	0	-2,371
TOTAL SOURCES OF FINANCING	-1,500	-100	-102	-315	0	0	0	0	-354	0	0	0	0	-2,371



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2468
Project Title:	TARGETED ROAD AND SIDEWALK ICING REDUCTION PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	A. Rammeloo

Project Description:  
Eliminate chronic icing and wet conditions due to problematic sump pump discharges on City right-of-way, within prioritized streets/neighbourhoods.

Project Justification:  
The project aligns with "A Caring Community" to protect the health and well-being of our citizens. The project invests in risk reduction by installing storm laterals (building sewers and private drain connections) for homes which don't already have them, which in turn improves safety in selected neighbourhoods by reducing the icing cause by sump pump discharge in winter.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES2468 - TARGETED ROAD AND SIDEWALK ICING REDUCTION PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	300	700	0	734	0	770	0	1,153	0	1,209	0	1,901	0	6,767
CITY RELATED	700	0	0	0	0	0	0	0	0	0	0	0	0	700
TOTAL EXPENDITURES	1,000	700	0	734	0	770	0	1,153	0	1,209	0	1,901	0	7,467

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	-1,000	-700	0	-734	0	-770	0	-1,153	0	-1,209	0	-1,901	0	-7,467
SUB-TOTAL RATE SUPPORTED	-1,000	-700	0	-734	0	-770	0	-1,153	0	-1,209	0	-1,901	0	-7,467
TOTAL SOURCES OF FINANCING	-1,000	-700	0	-734	0	-770	0	-1,153	0	-1,209	0	-1,901	0	-7,467

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2474
Project Title:	UTRCA - REMEDIATING FLOOD CONTROL WORKS WITHIN CITY LIMITS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

Project Description:  
Program in partnership with the Upper Thames River Conservation Authority (UTRCA) that leverages funding through provincial programs for maintaining and reconstructing components of the City's flood and erosion control infrastructure.

Project Justification:  
The City of London owns several flood and erosion control structures that are maintained through an agreement by the Upper Thames River Conservation Authority (UTRCA). The UTRCA has access to provincial funding through the Water and Erosion Control Infrastructure Program (WECI). WECI provides 50% funding for flood and erosion control projects.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES2474 - UTRCA - REMEDIATING FLOOD CONTROL WORKS WITHIN CITY LIMITS

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	2,665	3,512	0	0	0	0	0	0	100	100	100	100	0	6,577
CONSTRUCTION	8,559	-912	2,560	4,404	4,510	4,398	4,504	4,612	4,622	4,736	4,852	4,971	0	51,817
CITY RELATED	75	0	0	0	0	0	0	0	0	0	0	0	0	75
TOTAL EXPENDITURES	11,299	2,600	2,560	4,404	4,510	4,398	4,504	4,612	4,722	4,836	4,952	5,071	0	58,469

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	-1,000	0	0	0	0	0	0	0	0	0	0	0	0	-1,000
DEBENTURE	-2,750	0	0	0	0	0	-4,504	-4,612	-4,722	-4,836	-4,952	-5,071	0	-31,447
RESERVE FUND	-7,497	-2,600	-2,560	-4,404	-4,510	-4,398	0	0	0	0	0	0	0	-25,969
OTHER SOURCES	-52	0	0	0	0	0	0	0	0	0	0	0	0	-52
SUB-TOTAL RATE SUPPORTED	-11,299	-2,600	-2,560	-4,404	-4,510	-4,398	-4,504	-4,612	-4,722	-4,836	-4,952	-5,071	0	-58,468
TOTAL SOURCES OF FINANCING	-11,299	-2,600	-2,560	-4,404	-4,510	-4,398	-4,504	-4,612	-4,722	-4,836	-4,952	-5,071	0	-58,468

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES2486
Project Title:	WONDERLAND ROAD STORMWATER IMPROVEMENTS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

**Project Description:**  
To provide conveyance improvements or Stormwater management controls for the Wonderland Road South drainage system within the limits of the Pincombe Drain or Dingman Creek subwatersheds.

**Project Justification:**  
The Wonderland Road South corridor between Southdale Road and Dingman Drive is identified as a development corridor in the Southwest Area Secondary Plan and The London Plan. This budget covers works to improve existing deficiencies in the Wonderland Road Drainage system that were identified in the Bostwick East Area Plan and Pincombe Drain Stormwater Management Environmental Assessment (2012). The scope of works will be confirmed during the upcoming Pincombe Drain Municipal Class Environmental Assessment under the umbrella of the Dingman Creek Stormwater Servicing EA Master Plan.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

# ES2486 - WONDERLAND ROAD STORMWATER IMPROVEMENTS

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3013
Project Title:	EAST LONDON SURFACE FLOODING REMEDIATION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

Project Description:  
To conduct engineering studies to evaluate and mitigate surface flooding issues along the north and south branches of Carling Creek including Queens Avenue East.

Project Justification:  
To mitigate historic surface flooding issues identified in Carling Creek within the Central Thames Watershed.

# ES3013 - EAST LONDON SURFACE FLOODING REMEDIATION

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3098
Project Title:	GREENWAY WWTP CAPACITY IMPROVEMENTS FOR BYPASS REDUCTION & FLOOD PROTECTION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	G. Gauld

Project Description:  
Engineering and construction of works to protect the Greenway Wastewater Treatment Plant from flooding during large storms. This work includes walls, barriers and an effluent pumping station to reduce ideally eliminate wastewater by passes when Thames River levels are elevated.

Project Justification:  
Flood protection and effluent pumping is required to ensure wastewater treatment during a large storm everywhere increased river levels could overtop tanks and result in major wastewater by passes to the Thames River.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES3098 - GREENWAY WWTP CAPACITY IMPROVEMENTS FOR BYPASS REDUCTION & FLOOD PROTECTION

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	700	450	0	0	0	0	0	0	0	0	0	0	0	1,150
CONSTRUCTION	4,195	5,550	0	0	8,590	0	9,007	0	0	0	0	0	0	27,342
CITY RELATED	100	0	0	0	0	0	0	0	0	0	0	0	0	100
TOTAL EXPENDITURES	4,995	6,000	0	0	8,590	0	9,007	0	0	0	0	0	0	28,592

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	-9,007	0	0	0	0	0	0	-9,007
RESERVE FUND	-4,995	-6,000	0	0	-8,590	0	0	0	0	0	0	0	0	-19,585
SUB-TOTAL RATE SUPPORTED	-4,995	-6,000	0	0	-8,590	0	-9,007	0	0	0	0	0	0	-28,592
TOTAL SOURCES OF FINANCING	-4,995	-6,000	0	0	-8,590	0	-9,007	0	0	0	0	0	0	-28,592

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3220
Project Title:	WETLAND RESTORATION & SWM TREATMENT ENHANCEMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

**Project Description:**  
There are several existing assumed stormwater management facilities in which there are identified design issues that should be evaluated to improve the function of the facility or to reduce ongoing Operations and Maintenance. In addition, there are SWM facilities that are integrated with wetland systems. The function and sustainability of these wetlands is in question due to increased amount of Stormwater entering the previously natural features. This project will assess the design of the City's SWM ponds and recommend appropriate retrofits to improve the functionality and sustainability of assumed facilities and integrated SWM facility wetlands.

**Project Justification:**  
To improve the health of the water resources systems, reduce ongoing Operations and Maintenance or ensure sustainability of wetlands historically impacted by SWM Facilities, all to improve sustainability of the City's water resources system.

ES3220 - WETLAND RESTORATION & SWM TREATMENT ENHANCEMENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	350	0	0	0	0	0	0	0	0	0	0	0	350
CONSTRUCTION	0	0	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209	1,238	1,268	0	11,422
TOTAL EXPENDITURES	0	350	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209	1,238	1,268	0	11,772

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	-1,126	-1,153	-1,181	-1,209	-1,238	-1,268	0	-7,175
RESERVE FUND	0	-350	-1,024	-1,049	-1,074	-1,100	0	0	0	0	0	0	0	-4,597
SUB-TOTAL RATE SUPPORTED	0	-350	-1,024	-1,049	-1,074	-1,100	-1,126	-1,153	-1,181	-1,209	-1,238	-1,268	0	-11,772
TOTAL SOURCES OF FINANCING	0	-350	-1,024	-1,049	-1,074	-1,100	-1,126	-1,153	-1,181	-1,209	-1,238	-1,268	0	-11,772

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES3601
Project Title:	SEWER SYSTEM MODELING
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	A. Rammeloo

**Project Description:**  
WADE maintains InfoWorks sanitary sewer system hydraulic models, including twelve (12) separate models that were developed as part of the City of London's Pollution Prevention and Control Plan. These models were developed by a series of different engineering consultants using the same terms of reference.

**Project Justification:**  
There is need to consolidate some of these existing hydraulic models and develop an appropriate strategy to ultimately build and maintain calibrated hydraulic models for each of the City's sanitary sewersheds. These hydraulic models will support various system optimization and improvement initiatives. An engineering consultant that regularly completes hydraulic sewer modelling would be ideally suited to provide direction related to the strategy for further model building and development.

ES3601 - SEWER SYSTEM MODELING

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	200	205	0	0	0	113	0	0	0	0	254	0	772
TOTAL EXPENDITURES	0	200	205	0	0	0	113	0	0	0	0	254	0	772

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	-200	-205	0	0	0	-113	0	0	0	0	-254	0	-772
SUB-TOTAL RATE SUPPORTED	0	-200	-205	0	0	0	-113	0	0	0	0	-254	0	-772
TOTAL SOURCES OF FINANCING	0	-200	-205	0	0	0	-113	0	0	0	0	-254	0	-772

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5021
Project Title:	SEWER OPERATIONS VEHICLES & EQUIPMENT - WWT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Sewer Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	R. Pedlow

Project Description:  
5 Series Crew Cab w Hiab 5 Series Crew Cab w Hiab - fit up 8'x6' Aluminum Trench Box 8'x20' Steel Trench Box Upgrade to WADE van

Project Justification:  
The 5 Series crew cab including fit-up is required to support new sewer construction staff identified in the 2020-2023 multi year operating budget. The new sewer construction staff is required, ensuring an appropriate level of staffing to undertake proactive and reactive sewer construction work with consideration given to future infrastructure growth and effective customer service delivery. The two (2) trench boxes identified are critical in providing safety to Sewer Operations construction staff. The trench boxes are required in excavations to meet provisions of the provincial Occupational Health & Safety Act and Regulations.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

## ES5021 - SEWER OPERATIONS VEHICLES & EQUIPMENT - WWT

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5022
Project Title:	BIOSOLIDS PROCESSING UPGRADES
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	G. Gauld

Project Description:  
This project will evaluate upgrading the thickening operations at the Adelaide, Oxford and Pottersburg plants to reduce trucking costs from the plants to Greenway.

Project Justification:  
Hauling sludge represents a considerable cost to the operation of wastewater treatment plants. A preliminary study completed in 2017 (RVA) concluded the number of daily sludge loads hauled to Greenway could decrease from 22 to 8 by increasing the sludge density from 3-4% up to 12%. There is also potential to reduce the GHG emissions associated with hauling sludge from 372 tonnes/yr to 135 tonnes/yr, a 64% reduction. The RVA study show a 68% recovery of capital over 20 years. It should be noted the existing thickening equipment at the Pottersburg plant is approaching 20 years old and the membrane thickener at the Oxford plant has been problematic and may not be suitable as the plant flow increases. Upgrading these system to thicker sludge may improve the capital recovery period. Increasing the sludge density will also require an upgrade to the loading facilities and the trailers used to haul thickened sludge. Advancing this project will require coordination of all the equipment life cycles and can possibly be staged over several years.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5022 - BIOSOLIDS PROCESSING UPGRADES

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	500	0	0	0	0	0	0	0	0	0	0	0	500
CONSTRUCTION	0	0	0	0	0	4,398	3,378	3,459	0	0	0	0	0	11,235
TOTAL EXPENDITURES	0	500	0	0	0	4,398	3,378	3,459	0	0	0	0	0	11,735

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	-3,378	-3,459	0	0	0	0	0	-6,837
RESERVE FUND	0	-500	0	0	0	-4,398	0	0	0	0	0	0	0	-4,898
SUB-TOTAL RATE SUPPORTED	0	-500	0	0	0	-4,398	-3,378	-3,459	0	0	0	0	0	-11,735
TOTAL SOURCES OF FINANCING	0	-500	0	0	0	-4,398	-3,378	-3,459	0	0	0	0	0	-11,735

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5023
Project Title:	VAUXHALL/POTTERSBERG AREA WWTP REPLACEMENT
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	G. Gauld

Project Description:  
The project will initiate the planning for a new plant at the existing Pottersburg site.

Project Justification:  
The Pottersburg plant is plagued with poor design and hydraulics. Through the interconnection between Pottersburg and Vauxhall, flow will be shifted from Pottersburg to Vauxhall in the short/mid term with no net change to the total combined treatment capacity of the two plants. As both plants will be near the end of their life cycle when their current combined capacity is reached a new modern plant is planned for the Pottersburg site. With construction of the new plant the Vauxhall flows will be directed to Pottersburg through the interconnection and the Vauxhall plant can be re-purposed as needed. There is also potential for the new plant to receive flows from the southern portion of the City to relieve pressures at Greenway. Initial work will examine hydraulics and the associated plant pumping station including East Park. Additional land, including the area to the east of the current plant (dog park) may be needed for the expansion.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES5023 - VAUXHALL/POTTERSBURG AREA WWTP REPLACEMENT

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	0	0	0	1,649	0	0	0	0	0	0	0	1,649
TOTAL EXPENDITURES	0	0	0	0	0	1,649	0	0	0	0	0	0	0	1,649

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	0	0	0	-1,649	0	0	0	0	0	0	0	-1,649
SUB-TOTAL RATE SUPPORTED	0	0	0	0	0	-1,649	0	0	0	0	0	0	0	-1,649
TOTAL SOURCES OF FINANCING	0	0	0	0	0	-1,649	0	0	0	0	0	0	0	-1,649

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5024
Project Title:	VAUXHALL/POTTS CAPACITY UPGRADES & FLOW EQ
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	G. Gauld

Project Description:  
This project will increase the capacity of the Vauxhall plant and facilitate the decommissioning of Pottersburg #1 Section.

Project Justification:  
The Vauxhall plant can be economically re-rated up to 34MLD, an increase of 14MLD. The Pottersburg plant is currently overrated and needs to be de-rated by 13MLD. This project will complete the work needed to increase the Vauxhall plant to 34MLD including an additional UV system and a flow equalization tank and pumping. Once Vauxhall has been re-rated to 34MLD #1 section at Pottersburg will be taken offline and re-purposed for a transfer station and flow equalization.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

## ES5024 - VAUXHALL/POTTS CAPACITY UPGRADES & FLOW EQ

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5025
Project Title:	CAPACITY IMPROVEMENTS - 2 WWTP
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	G. Gauld

**Project Description:**  
This project proposes to reduce the impacts of these overflows by introducing Chemically Enhanced Primary Treatment (CEPT) of wastewater at the Pottersburg and Adelaide Wastewater Treatment plants. These upgrades will both reduce bypasses and improve the quality of water bypassed from the plants during extreme conditions.

**Project Justification:**  
Pumping station and treatment plant bypasses are built to protect wastewater assets and homes from flooding during extreme rainfall events. When wastewater overflows occur in the City, the health of the Thames River can be negatively affected in both the short and long term. Reducing the frequency and volume of overflow events by increasing capacity at our wastewater treatment plants and pumping stations will help reduce sewage bypasses to the River and ensure that a vibrant and healthy Thames River is here for future generations to enjoy. Reducing overflows will also help reduce phosphorous loading to Lake Erie and contribute towards the City of London’s commitments outlined in the Canada-Ontario Lake Erie Action Plan.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

## ES5025 - CAPACITY IMPROVEMENTS - 2 WWTP

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES5234
Project Title:	ADELAIDE WWTP FLOOD PROTECTION & CAPACITY IMPROVEMENTS TO REDUCE SEWAGE BYPASSES
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - Wastewater Operations
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	G. Gauld

Project Description:  
To design and construct an effluent pumping station with standby power to reduce and ideally eliminate wastewater bypasses during large storms.

Project Justification:  
Increased wet weather flow has led to basement flooding in the Adelaide Wastewater Treatment Plant catchment area. The plant has capacity to accept and treat increased flows during we weather, however the existing outlet restricts how much additional flow can be discharged when river levels are high. Addition of an effluent pumping station will protect more homes from basement flooding.

# ES5234 - ADELAIDE WWTP FLOOD PROTECTION & CAPACITY IMPROVEMENTS TO REDUCE SEWAGE BYPASSES

### Project Expenditure Details (in Thousands)

[illegible]

### Project Sources of Financing Details (in Thousands)

[illegible]

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES209221
Project Title:	BASEMENT FLOODING GRANT PROGRAM
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	A. Rammeloo

Project Description:  
An annual program to provide grants for privately installed sump pumps, backwater valves, sewer ejector and storm sewer lateral connections. (Storm building sewer and storm private drain connection).

Project Justification:  
To remove ground water/storm from the sanitary sewer system, thereby reducing possible overloading of the sanitary sewer system. To prevent basement flooding, sewer overflows, and wastewater treatment plant bypass.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES209221 - BASEMENT FLOODING GRANT PROGRAM

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CITY RELATED	0	0	512	524	537	550	563	576	590	604	619	634	0	5,709
TOTAL EXPENDITURES	0	0	512	524	537	550	563	576	590	604	619	634	0	5,709

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-512	-524	-537	-550	-563	-576	-590	-604	-619	-634	0	-5,709
SUB-TOTAL RATE SUPPORTED	0	0	-512	-524	-537	-550	-563	-576	-590	-604	-619	-634	0	-5,709
TOTAL SOURCES OF FINANCING	0	0	-512	-524	-537	-550	-563	-576	-590	-604	-619	-634	0	-5,709

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES243621
Project Title:	TARGETED WEEPING TILE DISCONNECTION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	A. Rammeloo

Project Description:  
To undertake design and construction of remedial works to alleviate basement flooding and sewer surcharging across the City in targeted neighbourhoods. Preferred solution includes Weeping Tile Disconnection from sanitary system, installation of sump pit and pump, backwater valve and storm lateral (building sewer and private drain connection).

Project Justification:  
This project reduces inflow/infiltration of the sanitary sewer, which reduce the potential for sanitary sewer surcharge and the potential for sewer system overflows.

ES243621 - TARGETED WEEPING TILE DISCONNECTION

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209	1,238	1,268	0	11,422
TOTAL EXPENDITURES	0	0	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209	1,238	1,268	0	11,422

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DEBENTURE	0	0	0	0	0	0	-1,126	-1,153	-1,181	-1,209	-1,238	-1,268	0	-7,175
RESERVE FUND	0	0	-1,024	-1,049	-1,074	-1,100	0	0	0	0	0	0	0	-4,247
SUB-TOTAL RATE SUPPORTED	0	0	-1,024	-1,049	-1,074	-1,100	-1,126	-1,153	-1,181	-1,209	-1,238	-1,268	0	-11,422
TOTAL SOURCES OF FINANCING	0	0	-1,024	-1,049	-1,074	-1,100	-1,126	-1,153	-1,181	-1,209	-1,238	-1,268	0	-11,422

# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES244221
Project Title:	EXTENSION OF WASTEWATER SERVICING TO BUILT OUT AREAS
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	Sewer Engineering
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	A. Rammeloo

Project Description:  
Funding for the extension of services to unserved parts of the urban growth boundary. Priority is given to projects completed in accordance with the Local Improvement Act with remaining funding applied to septic tank systems.

Project Justification:  
Program to extend servicing of the City's sewer system to built-out areas currently serviced by individual septic tank systems.

ES244221 - EXTENSION OF WASTEWATER SERVICING TO BUILT OUT AREAS

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CONSTRUCTION	0	0	379	388	397	407	417	427	437	447	458	469	0	4,226
TOTAL EXPENDITURES	0	0	379	388	397	407	417	427	437	447	458	469	0	4,226

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
RESERVE FUND	0	0	-379	-388	-397	-407	-417	-427	-437	-447	-458	-469	0	-4,226
SUB-TOTAL RATE SUPPORTED	0	0	-379	-388	-397	-407	-417	-427	-437	-447	-458	-469	0	-4,226
TOTAL SOURCES OF FINANCING	0	0	-379	-388	-397	-407	-417	-427	-437	-447	-458	-469	0	-4,226



# PROJECT DETAIL RECORD: 2021 CAPITAL BUDGET WITH FORECAST

Date: 2021/03/01

Project Number:	ES304021
Project Title:	MINOR SURFACE FLOODING MITIGATION
Entity:	Wastewater and Treatment
Service Program:	Environmental Services
Service Grouping:	Wastewater & Treatment
Service:	WW&T - SWM Unit
Service Area:	Environment & Engineering
Classification:	Service Improvement
Project/Program Manager:	S. Chambers

Project Description:  
Annual program to construct works in order to alleviate surface flooding, erosion problems and slope stability that impacting private property, which are outside the scope of the municipal sump pump grant program.

Project Justification:  
To remediate flooding and erosion that affects property and homes on a priority basis. Works required when circumstances are beyond the control of individual property owners. Efficiency gained by solving problems on an area basis, thereby lessening financial strain on grant program.

If you require this information in an alternative format please contact [budget@london.ca](mailto:budget@london.ca) or call 519-661-4638.

ES304021 - MINOR SURFACE FLOODING MITIGATION

Project Expenditure Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
DESIGN	0	0	139	0	0	0	0	0	0	0	0	0	0	139
CONSTRUCTION	0	0	232	381	390	399	409	419	429	439	449	460	0	4,007
TOTAL EXPENDITURES	0	0	371	381	390	399	409	419	429	439	449	460	0	4,146

Project Sources of Financing Details (in Thousands)

Budget Line Item	Prior Years	2020 Approved Budget	2021 Forecast	2022 Forecast	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	2029 Forecast	2030 Forecast	2031 And Beyond	Total Budget
CAPITAL LEVY/RATES	0	0	-372	-381	-390	-399	-409	-419	-429	-439	-449	-460	0	-4,147
SUB-TOTAL RATE SUPPORTED	0	0	-372	-381	-390	-399	-409	-419	-429	-439	-449	-460	0	-4,147
TOTAL SOURCES OF FINANCING	0	0	-372	-381	-390	-399	-409	-419	-429	-439	-449	-460	0	-4,147