Report to Strategic Priorities & Policy Committee

To:	Chair and Members
	Strategic Priorities and Policy Committee
From:	George Kotsifas P. Eng.,
	Deputy City Manager, Planning and Economic Development
Subject:	2022 Growth Management Implementation Strategy (GMIS) Update
Date:	Public Participation Meeting on May 18, 2021

Recommendation

That, on the recommendation of the Deputy City Manager, Planning and Economic Development regarding the implementation of the London Plan growth management policies applicable to the financing of growth-related infrastructure works, the following actions be taken:

- a) the 2022 Growth Management Implementation Strategy Update **BE APPROVED** as attached in Appendix 'B'; it being noted that:
 - a. Sunningdale SWM 8 will be rescheduled from 2022 to 2023;
 - b. Kilally Water Phase 2 will be rescheduled from 2022 to 2023;
 - c. Pincombe SWM P4 West will be rescheduled from 2022 to 2026;
 - d. North Lambeth SWM P2 North will be rescheduled from 2025 to 2023;
 - e. North Lambeth SWM P2 South will be rescheduled from 2023 to 2025; and
 - f. project design work for Kilally Road Webster to Clarke will commence in 2021.
- b) The Capital Budget **BE ADJUSTED** to reflect the timing changes associated with the projects noted in clause (a) above.

Executive Summary

The Growth Management Implementation Strategy (GMIS) is an important tool for Council to coordinate growth infrastructure with development approvals and correspond with the pace of growth across the city, while maintaining an acceptable financial position. This GMIS report builds upon the financial analysis provided in previous GMIS reports and seeks to ensure the affordability of growth servicing in the City of London.

The GMIS is the tool that allows for the adjustment of Development Charge (DC)funded project timing between DC background studies and is updated annually to ensure project timing continues to align the pace of development while ensuring financial sustainability. The scope of the 2022 GMIS's analysis focuses on all projects that will directly impact specific subdivision or site plan applications. The attached tables and figures outline the timing of key growth-related infrastructure projects needed to facilitate development.

This report discusses some of the financial considerations (DC reserve fund and debt) which arise from maintaining the City's current plan for investment and the implications of requests for project timing changes. Council's adopted Project Evaluation Framework is used to review future infrastructure project timing with the aim of providing a future 3-year supply of single detached residential lots in each greenfield area.

Through the GMIS review process, it is recommended that one project be accelerated, and four projects be deferred based on aligning the timing of these projects with the timing of expected development. The timing of all remaining GMIS infrastructure is recommended to remain unchanged. Extensive developer and community stakeholder consultation is a vital part of the GMIS process.

Linkage to the Corporate Strategic Plan

This report supports the 2019-2023 Strategic Plan for the City of London through the Building a Sustainable City strategic area of focus by advancing the growth and development policies of the London Plan through enhanced implementation tools and infrastructure. The annual review of growth infrastructure plans to balance development needs with available funding is a specific action of the strategic plan.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

October 20, 2020 – Strategic Priorities and Policy Committee – 2021 Development Charges Update Covering Report and Proposed By-law.

1.2 Background

The London Plan identifies the extent of the City's Urban Growth Boundary and requires that the municipal services needed to accommodate the planned growth be identified. Through servicing strategies, municipal services are identified as growth-related projects that are then incorporated into each Development Charges (DC) Background Study which are prepared every five years. The timing and cost of these projects form the basis for the development charge rate calculation – which once approved becomes the charge for new development over the next five years. The DC-funded projects, their timing and the funding sources are then incorporated in the City's capital budget.

The GMIS is the tool identified by the London Plan that allows for the adjustment of DCfunded project timing between DC studies. The GMIS is updated annually to ensure project timing continues to align with growth while ensuring financial sustainability. The GMIS considers the pace of development, the status of DC reserve funds, and the desires of developers to progress development applications in areas designated by the London Plan for growth. It provides flexibility to respond to changes in market conditions or to make adjustments that reflect the financial status of the DC reserve funds.

1.3 GMIS Inputs and Principles

The GMIS update involves the integration of multiple inputs (Figure 1). Typically, each GMIS update assesses the collected information against the eight Council approved principles of GMIS to make appropriate adjustments to the schedule of works.



As part of drafting the first GMIS in 2008, staff and development industry representatives participating in the DC Implementation Team helped develop core principles for the implementation of the City's growth management policies. These core principles guide annual GMIS updates. The eight core principles set out by Council in 2008 include:

- 1. Provide direction for timely and cost-efficient extension of municipal services both from an efficiency and municipal affordability perspective.
- 2. Support growth costs that are affordable within our financial capacity, having regard for both the capital and operating costs of services to support growth.
- 3. Allocate growth in a manner that optimizes the use of existing services and facilities.
- 4. Support the development of sufficient land to meet the City's growth needs and economic development objectives.
- 5. Support the implementation of Official Plan growth management policies.
- 6. Support the completion of existing development approvals.
- 7. Maintain lot and land supply that is consistent with provincial policies and conducive to a healthy housing market.
- 8. Co-ordinate the phasing of development approvals and the scheduling/funding of works through the capital budget.

The initial GMIS document from 2008 provided a schedule for growth infrastructure with estimated costs over the 20-year growth period. This schedule was incorporated into the finalized DC Background Study which came into effect with the passing of the DC By-law in August 2009. Since then, the GMIS has been updated annually, reflecting adjustments to timing for DC-funded projects.

2.0 Discussion and Considerations

2.1 2022 GMIS: Introduction

The 2022 GMIS report builds upon information provided in previous GMIS reports and seeks to sustain adequate servicing of growth areas in the City of London and prudent management of Development Charge reserve funds. The scope of the 2022 GMIS analysis includes all projects that directly impact specific subdivision or site plan applications with the goal of creating the most efficient servicing solutions possible.

2.2 2022 GMIS: Growth and Development Observations and Trends

An important relationship exists between the projected amount of residential and nonresidential growth and the City's future investments in infrastructure projects. DC rate calculations are based on growth projections that determine servicing needs, which in turn establish DC rates. If actual growth in the form of development and building construction does not consistently meet the growth projections contained in the DC Background Study, then sufficient revenues are not being generated to maintain the original schedule of investments in infrastructure. The two key elements – growth activity and investment in infrastructure – should move in tandem.

For the 2022 GMIS Update, staff reviewed growth levels for all forms of residential and non-residential development. Figure 2 provides a graph of historic and forecasted growth for low density residential development which is particularly important for DC purposes as single detached homes represent almost 50% of calculated DC revenues and are the primary driver for the construction of new infrastructure to support greenfield subdivisions. It should be noted however, that the growth forecasts for all forms of residential development are used for determining future DC revenues and for assessing the health of DC reserve funds.



FIGURE 2: LOW DENSITY RESIDENTIAL GROWTH: 2011-2025

Staff notes the following growth observations and trends that impact DC revenues and the 2022 GMIS recommendation:

- Over the previous 5 years (2015-2019), the City experienced an annual average of 876 permits for single detached dwellings. This was exceeded in 2020 when 1,034 single detached permits were issued. Staff is anticipating the trends experienced in 2020 will carry forward over the near- to medium-term; GMIS stakeholders have indicated that they are experiencing elevated interest in single detached dwellings and believe this demand will be sustained into the future. The 2019 Watson forecast anticipates 1,088 single detached dwellings annually from 2021 to 2023 and 961 single detached dwellings annually beyond 2023. Staff are monitoring the potential impacts of Covid-19 on the housing sector and intraprovincial migration associated with increasing work-from-home options available to employees. This may have implications on the housing projections as the current environment was not anticipated when and employment and population growth was modelled by Watson.
- Medium density (townhouse/rowhouse) residential growth decreased in 2020 from previous years to 469 units. It is anticipated that townhouse construction will increase over the coming years due to a rising demand for this housing form from young adults and retirees, and as an affordable alternative to single detached dwellings. The Watson forecast anticipates 517 units annually over the near- to medium-term. Builders have stated that they are experiencing elevated demand for townhouses as single detached home prices have increased substantially.
- Apartment construction continues to be strong in London but has a "peaks and troughs" building cycle. After strong levels in 2018 and 2019, the City experienced a record level of construction in 2020 with permits for 2,210 apartment units being issued. Elevated development interest remains for new apartment buildings, thus the Watson forecast of 704 units is being closely monitored. London's apartment vacancy rate remains low and there is a high demand for apartments with below market rent.
- New commercial space gradually declined between 2017 and 2019. In 2020, new commercial growth further declined 65% from 2019 levels to less than 30% of the Watson forecast of 31,829m². It is anticipated that the commercial sector will continue to be challenged over the near-term in relation to the pandemic economic recovery.
- After three years of lower than forecasted institutional growth, a significant increase
 was experienced in 2020 due to permits for new long-term care facilities, an addition
 to a post-secondary building and elementary school additions. Future institutional
 construction is difficult to predict as it mainly relies on spending by upper levels of
 government. The Watson forecast anticipates 42,512m² of new institutional space
 annually over the near- to medium-term.
- In 2020, Industrial growth returned to historic levels after a significant increase in 2019 due to a permit for a large food processing facility. Longer-term external forecasts for the industrial sector anticipate continued recovery, which coincides with the City's development of new industrial lands attractive to larger industrial users. The Watson forecast anticipates a demand for 31,894m² of new industrial space annually over the near- to medium-term which is supported by a recent increase in industrial land sales and development application activity.

2.3 2022 GMIS: Development Charges Reserve Fund Analysis

As part of the GMIS process, Staff reviewed the cash flow projections for each DC reserve fund that contained GMIS projects. This analysis revealed a need to closely monitor reserve fund revenues and drawdown activity, especially for the following high-cost service components:

- Stormwater Management; and
- Wastewater.

These services rely heavily on debt to facilitate the timing of infrastructure construction given that:

- major expenditures for sanitary sewers and stormwater management precede and facilitate growth in that new investments are required prior to development being possible in a new area; and
- significant amounts of project costs have been identified for future recovery (i.e. post period benefits) in the 2021 DC rate calculations with the objective of achieving a fair allocation of recovery of investment in growth costs. Therefore, the DC reserve funds that finance these services rely on debt to finance the portion of the project costs identified for recovery beyond the 20-year time horizon of the DC Study.

Staff has conducted a detailed cash flow analysis of all DC reserve funds that contain GMIS projects to assess the financial risks and overall affordability of the present GMIS. Additionally, Environment and Infrastructure division managers were interviewed to determine emergent changes to project timing and cost estimates.

As the 2022 GMIS mainly proposes changes in timing that will affect the Stormwater DC reserve fund, Figures 3 provides a graphical representation of this reserve fund following an analysis undertaken by Development Finance staff:

- **Debt payments (vertical bars):** For each year, the bars reflect annual debt payments required by the reserve fund to pay for infrastructure investments. Viewing the graph from left to right, the first bar reflects debt payments based on currently approved capital budgets and forecasts. The second bar reflects an 'adjusted' annual debt payment based on revised debt payment changes arising from the recommended project timing adjustments discussed later in this report.
- Revenues to debt payment ratio (lines): To provide context for the debt obligations of the Stormwater Reserve Fund, a line depicting a revenue to debt ratio is provided. The declining line in Figure 3 indicates that an increasing share of DC revenues is being used to pay down debt, limiting the amount of cash draws available to fund projects. As shown on the figures below, the ratio dips substantially after 2022 as several projects to be constructed require the use of debt financing. As shown, annual debt payments will consume a substantial portion of projected revenues over the next 10 years and by 2031 approximately 85% of DC revenues will be required to meet debt obligations.



The following provides a summary of the DC reserve fund analysis:

• DC Revenues:

- LDR and MDR revenues generally met DC forecasts in 2020 and elevated HDR revenues where largely offset by slower commercial growth. Overall, revenues met what has been forecasted. Projected revenues are necessary to maintain timing of projected investments (expenditures) in new infrastructure.
- Staff need to remain vigilant of growth activity to be able to recommend corrective measures should circumstances (e.g. economic condition and reversal of current housing market expansion) reflect changing growth patterns.

• DC Expenditures:

 No significant project cost variances to DC projects since last years' 2021 DC Study Update were identified at the time of the GMIS analysis. Project cost variances are being constantly monitored, and if any variances are experienced for the balance of the year, they will inform next year's GMIS.

The combination of stable DC revenues over the past few years and minimal changes in project cost variances since last year allow the City to maintain project timing as set out in the 2021 DC Study Update.

2.4 2022 GMIS Stakeholder Consultation

Stakeholder engagement is a vital component of the annual GMIS update. Two general stakeholder meetings were held to provide an overview of growth information and reserve fund health, to discuss GMIS timing considerations and to outline draft project changes. In addition to the general meetings, individual one-on-one interviews were held with developers, builders and other community stakeholders that requested an opportunity to discuss development plans or issues with Staff related to GMIS projects.

A total of 15 one-on-one meetings were held with stakeholders, resulting in a wide array of perspectives and infrastructure timing requests for consideration. The interviews provided important information regarding the GMIS Infrastructure Project Evaluation Framework, growth modelling assumptions, development timelines, community benefits, and suggestions for process improvements. The collective knowledge of the stakeholders was vital to producing the recommended 2022 GMIS Update.

On April 13, the draft GMIS was presented to the stakeholders based on feedback received from the first round of interviews, growth and reserve fund analysis and internal discussions with City project managers. Although Staff is not able to accommodate all stakeholder requests, the continued dialogue through the GMIS process has produced an infrastructure strategy that maximizes development opportunities while not increasing concerns about the financial sustainability of DC reserve funds.

2.5 2022 GMIS Stakeholder Review

Through the stakeholder consultations, five requests for project accelerations and three deferral requests were received from development stakeholder to realign projects with their anticipated development timing. The requests were considered in the context of the eight core principles set out by Council in 2008, an analysis of the Development Charge Reserve Funds, and the project timing review tests set out below.

The GMIS process uses a series of questions to inform project timing and consider requests to accelerate projects. Each serves as a "lens" for evaluating whether changes are merited to the timing of infrastructure projects and are applied equally to all projects. Referred to as the GMIS "tests," the questions are as follows:

- Is the project needed to provide additional buildable lots to meet demand in the growth area?
- Has a developer sufficiently progressed a development proposal to warrant the construction project next year or the following year?
- Can we afford the project?

To accelerate a project, all three tests must be met. The first question speaks to the need for infrastructure, in relation to market demand and supply of lots in a geographic area. This criterion is used to match the pace of infrastructure construction with the pace of growth with an aim to provide a future 3-year supply of single detached residential lots in each greenfield area.

This project evaluation framework was endorsed by Council as part of the 2017 GMIS Update and is to be used by subsequent updates such as this exercise. Appendix 'A' provides a summary of the GMIS growth framework and the results of the analysis conducted by Staff, based on feedback received from stakeholder interviews.

The demand inputs used reflect the Council adopted 2019 DC Watson forecasts that were carried forward to the 2021 DC Background Study Update and By-law. These forecasts assume a city-wide single detached dwelling demand of 1,088 units/year between 2021 and 2023, and 961 units/year during the 2024-2029 period.

2.6 2022 GMIS Recommended Project Timing Adjustments

In general, the current timing for projects aligns with the needs of the development community stakeholders and provides for significant new growth opportunities throughout the City. Appendix 'B': (2022 GMIS Project Tables and Figures) proposes a Schedule of Works that identifies the timing of key growth-related infrastructure projects required to facilitate development throughout the City over 0-5 year, 6-10 year and 10+ year horizons. This Schedule of Works maintains timing that is similar to that approved by Council as part of the 2021 DC Study Update.

The recommended project schedule discussed below is the best compromise between:

- maintaining financially sustainable reserve funds;
- the desire of several developers to advance timing on projects that will accelerate development of their land holdings; and
- the feasibility of advancing infrastructure projects given the time needed to construct them in a judicious manner.

From the 2022 GMIS Update analysis, Table 1 below identifies proposed project timing adjustments to the last year's 2021 DC Study Update. One stormwater project is recommended to be accelerated and three stormwater projects are recommended to be deferred. It is also recommended to defer a water project to ensure it is coordinated with an associated road project. All other GMIS projects are recommended to maintain their timing as approved in the 2021 DC Study Update. The final project timing outlined for the 2022 GMIS is subject to the approval of the 2022 Capital Budget Update. *A more complete discussion of the project timing to be adjusted in the tables above is provided in Appendix 'D'*.

Service	Project Description	2021 DC Study Year	Rationale for Timing Change	2022 GMIS Year	Total Gross Cost
Stormwater	Sunningdale SWM 8	2022	Developer deferral request to align with development timing	2023	\$1.9M
Stormwater	Pincombe SWM P4 - West	2022	No application on benefitting lands	2026	\$2.3M
Stormwater	N. Lambeth SWM P2 - North	2025	Support meeting greenfield area lot supply target	2023	\$2.6M
Stormwater	N. Lambeth SWM P2 - South	2023	Developer deferral request to align with development timing	2025	\$2.3M
Water	Kilally Water Phase 2	2022	City deferral request to coordinate project with road design work	2023	\$7.0M

TABLE 1: 2022 GMIS PROJECT TIMING ADJUSTMENTS

2.7 2022 GMIS Developer Requests Not Recommended

Table 2 identifies requests received through GMIS stakeholder consultations that are not being recommended for acceleration as part of the 2022 GMIS. In general, Staff are not recommending the following infrastructure timing requests due to sufficient lot supply in the greenfield area, technical concerns and/or affordability constraints.

Service	Project Description	Stakeholder Request	2021 DC Study Timing	Requested 2022 GMIS Timing	Total Gross Cost
Stormwater	N. Lambeth SWM P1 - N	Southside	2033	2026	\$1.9M
Stormwater	N. Lambeth SWM P1 - S	Southside	2033	2026	\$1.9M
Stormwater	Pincombe SWM 3 - W	Foxwood	2025	2022	\$2.9M
Roads	Kilally Road – Webster to Clarke	Drewlo	2030	2022	\$10.1M
Wastewater	South Lambeth Sanitary Servicing	Farhi	n/a	n/a	n/a

TABLE 2: PROJECT TIMING REQUESTS NOT RECOMMENDED BY STAFF

A more complete discussion of the requests and Staff rationale is provided in Appendix 'E'.

While not recommended for acceleration in the 2022 GMIS Update, certain requests on Table 2 are beyond the current DC By-law's 2024 expiration date. These are identified on Table below and can be considered comprehensively through the 2025 DC master planning process to begin in 2022. This will ensure that these longer-range requests are considered and coordinated with greenfield area lot supply and demand, any technical issues are resolved, and importantly timing and cost estimates are reviewed in the context of implications on the recalculated 2025 Development Charges rate.

TABLE 3: PROJECT REQUESTS TO BE CONSIDERED DURING2025 DC MASTER PLANS

Project Description	2021 DC Study Year	Requested 2022 GMIS Timing	2025 DC Master Plan Request
N. Lambeth SWM P1 - North	2033	2026	Advance project timing to align with anticipated development timing
N. Lambeth SWM P1 - South	2033	2026	Advance project timing to align with anticipated development timing
South Lambeth Sanitary Servicing	n/a	n/a	Review sanitary servicing for the Lambeth Area

2.8 2022 GMIS Short-Term Development Opportunities

The proposed Schedule of Works in Appendix B provides infrastructure investment timing that accommodates a wide range of future housing demand scenarios. The City has committed \$20.7 million to GMIS infrastructure projects to be completed over 2021, including three stormwater management facilities, one sanitary trunk project and three watermain projects. Furthermore, the current timing plan assigns an additional \$107.2 million dollars to be spent on projects over the next five years between 2022 and 2026.

At present, external servicing (water, sewer, stormwater) is in place for lands capable of accommodating 5,047 single detached lots; 3,079 of which are in Draft Approved Subdivision plans. GMIS project construction in 2021 and 2022 will result in serviceable lands capable of accommodating an additional 2,585 single detached dwelling lots.

It is important to note that GMIS infrastructure only provides opportunity as serviceable lands are ultimately made available for dwellings through the subdivision approval process. Subdivision applications in all geographic areas of the city are advancing over the next few years that will provide new opportunities for residential and non-residential greenfield development throughout the City.

2.9 GMIS Booklet

Each year, Development Finance produces the "GMIS Booklet" — a comprehensive reference document that contains mapping for new development areas, Vacant Land Inventory information (i.e. residential construction opportunities), infrastructure servicing areas, and up to date GMIS project timing. The booklet provides 0-5 year, 6-10 year and 10+ year project timing tables that is beneficial information to stakeholders for subdivision planning.

A draft version of the 2022 GMIS Booklet has been prepared to reflect the recommendations contained in this report. Subject to Council adoption of the GMIS (with revisions where applicable), a final version of the 2022 GMIS Booklet will be prepared. The document will be broadly circulated to GMIS stakeholders and City staff as well as being made available on the City's website.

2.10 Next Steps

Pending the adoption of the recommendations of this report, Staff will reflect the GMIS changes in the 2022 Annual Update to the Multi-Year Budget and collectively work towards addressing any implementation challenges so that infrastructure projects are delivered in a timely manner, consistent with the completion of subdivision approvals.

Conclusion

The GMIS is an important tool for Council to coordinate growth infrastructure with development approvals and to manage available financial resources. The combination of overall stable DC revenues in 2020 and minimal changes in project cost variances since last year's GMIS allow the City to maintain the current GMIS timing for growth infrastructure projects and permit some flexibility to advance projects based on warranted growth needs.

The 2022 GMIS Update recommendations provide for infrastructure investment timing that can accommodate a wide range of future housing demand scenarios. Staff will continue to work with and consult with development and community stakeholders over the coming year to ensure efficient and timely servicing that will provide for a logical and sustainable progression of growth well into the future.

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May 10, 2021 KE\ke

Appendix 'A': GMIS Infrastructure Project Evaluation Framework Appendix 'B': 2022 GMIS Project Tables and Figures:

- Table B1 GMIS Annual Update 2022: Detailed List of Works and Costs by Service 5 Year Projects
- Figure B1 GMIS Annual Update 2022: Works 0-5 Years (2019-2023) Year of Construction
- Table B2 GMIS Annual Update 2022: Detailed List of Works and Costs by Service 6-10 Year Projects
- Figure B2 GMIS Annual Update 2022: Works 6-10 Years (2024-2028) Year of Construction
- Table B3 GMIS Annual Update 2022: Detailed List of Works and Costs by Service 10+ Year Projects
- Figure B3 GMIS Annual Update 2022: Works 10+ Years (2029-2033) Year of Construction

Appendix 'C': List of GMIS Stakeholders

Appendix 'D': Rationale for 2022 GMIS Project Timing Adjustments

Appendix 'E': Detailed Commentary Regarding Developer Infrastructure Requests

Appendix A – GMIS Infrastructure Evaluation Framework

GMIS "Tests"

The following questions are applied to each project listed in the GMIS in relation to the development contained within the benefitting area. The three questions serve as separate, but related lenses for considering infrastructure timing and all three tests must be met in order to consider acceleration of a project.

- a) Is the project needed to provide additional buildable lots to meet demand in the growth area? (If yes, proceed to Test 2; if no, maintain timing/defer project).
- b) Has a developer sufficiently progressed a development proposal to warrant the construction project next year or the following year? (If yes, proceed to Test 3; if no, maintain timing/defer project).
- c) **Can we afford the project?** (If yes, consider project acceleration; if no, maintain timing/defer project, or alternatively other projects must be deferred to accommodate the selected project).

GMIS Targets/Growth Modelling

In order to address GMIS Test a) outlined above, growth modelling is required to examine demand for and supply of single detached residential lots for each of the City's greenfield growth areas (North, Northwest, Northeast, Southeast, Southwest, West). The model is informed by the following targets and assumptions:

- Provide three (3) years of permit ready supply of single detached lots in each greenfield area (where possible);
- Using the adopted Watson forecast for single detached units per year, deduct 5% to account for construction within the Built-Area Boundary and a further 11% to address detached dwellings constructed on medium density designated lands (i.e., Vacant Land Condominiums). This will provide for an "apples-to-apples" comparison of demand for single detached residential lots with available supply;
- Base the model on when building permits can be issued for developable lands, rather than on the timing of the installation of major infrastructure (i.e., "permit-ready" supply of lands versus "serviced" supply of lands);
- Assume the following market capture shares for single detached lots, based on a review of historic trends and stakeholder feedback:

0	North:	20%
0	Northwest:	21%
0	Northeast:	8%
0	Southeast:	15%
0	Southwest:	21%
0	West:	15%

- In establishing the baseline, employ subdivision timing and phasing from information supplied by development proponents in the GMIS interviews and adjust where warranted based on model iterations and professional judgement;
- Select year of registration at the year following the construction of infrastructure to provide a buffer for any process-related issues that may arise; and,
- Provide opportunities in multiple locations and for multiple developers (where possible).

The results of the 2022 GMIS growth modelling are provided in the following tables.

North Demand and Supply	Analvsis												S	bdivisions	Legend				
LDR Units/Year Watson Scenario		1088	1088	1088	961	961	961	961	961	893	893	893		In	frastructur	e construct	ion vear		
* 95% on greenfield lands		920	920	920	813	813	813	813	813	755	755	755		G.	timate as r	10 applicati	on received	d to date	
* 11% of unit construction as VLC	Capture %	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%		Su	bdivision I	build-out d	ate		
					M	ARCH 2021							ľ						
		0	1	2	ω	4	л	6	7	00	9	10	ī	frastructur	e Project T	iming Lege	nd		
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031							
Opening Supply		122	0	0	171	316	535	739	924	981	966	924		20	21 DC Stud	y construct	ion timing	maintainec	~
Add: New Supply		54	175	355	308	381	367	347	220	136	109	48		X Pr	oposed 20	22 GMIS Tin	ning Adjust	ment	
Subtotal		176	175	355	479	697	902	1086	1144	1117	1075	972							
Subtract: Demand		184	184	184	163	163	163	163	163	151	151	151							
Years of Serviced Supply		1.0	1.0	1.9	2.9	4.3	5.5	6.7	7.0	7.4	7.1	6.4							
Carry-Over		0	0	171	316	535	739	924	981	966	924	821							
	•		_	_	_	_	_	_	-	_	_	_			_	_	_	_	
Subdivisions	Year	Reg'n Yr	Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
39T-09501	Serviced	2022	313		52	52	52	52	52	53	0	0	0	0	0	0	0	0	0
39T-16503	Serviced	2023	45	3	8	45	0	0	0	0	0	0	0	0	0	0	0	0	0
291-10201	2 · ·	1707	00	20	20	, c	<u> </u>	<u> </u>	, ,	, c	, c	, c	, ,	, c	, c	, c	, c	, ,	
39T-07502 Ph 1	Serviced	2022	416	17	69	69	69	69	69	71	0 0	0	0	0	0	0 0	0	0	0
39T-07502 Ph 2	2022	2024	60				30	30	0	0	0	0	0	0	0	0	0	0	0
39T-11502	Serviced	2023	132			33	33	33	33	0	0	0	0	0	0	0	0	0	0
SC-100/200/209	Serviced	2024	46					23	23	0	0	0	0	0	0	0	0	0	0
SC-101/202	2022	2027	33							33	0	0	0	0	0	0	0	0	0
SC-102	2025	2026	477						48	48	48	48	48	48	48	48	48	45	0
SC-103	2023	2028	55								28	27	0	0	0	0	0	0	0
SC-203	2023	2025	14					14	0	0	0	0	0	0	0	0	0	0	0
SD-102/203	Serviced	2026	94						31	31	32	0	0	0	0	0	0	0	0
SD-200/201	Serviced	2023	45			45	0	0	0	0	0	0	0	0	0	0	0	0	0
UP-100 Ph 1	Serviced	2023	488			61	61	61	61	61	61	61	61	0	0	0	0	0	0
UP-100 Ph 2/200	2022	2023	301			50	50	50	50	50	51	0	0	0	0	0	0	0	0
UP-101	Serviced	2025	49					49	0	0	0	0	0	0	0	0	0	0	0
UP-201	Serviced	2024	13				13	0	0	0	0	0	0	0	0	0	0	0	0
Total			2689	54	175	355	308	381	367	347	220	136	109	48	48	48	48	45	0
Note: No application (grey) supply	/ includes va	cant OP Des	ignated VU	LDR lands	and assume	es 25% of V	U MDR lan	ds will dev	velop as LD)R in accord	dance with	2011 Land	Needs Sti	ıdy.					
Infrastructure Projects		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Stoney Creek SWM 8				×															
Sunningdale SWME1																			
Stoney Creek 7.1 SWM																			
Stoney Creek SWM 10							_										_		

Infrastructure Projects	Note: No application (grey) supply	Total	HP-204/205	HP-100/202	FH-101	FH-100	39T-11503_3	39T-11503	39T-05512	39T-04510_4	39T-04510_3	39T-03505_3	39T-03505	Subdivisions		Remaining	Years of Serviced Supply	Subtract: Demand	Subtotal	Add: New Supply	Opening Supply					* 11% of unit construction as VLC	* 95% on greenfield lands	LDR Units/Year Watson Scenario	Northwest Demand and Sul
	includes vac		Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced Year I	-								1			Capture %			pply Analy
1606	ant OP Desig		2025	2024	2025	2025	2022	2021	2022	2022	2021	2021	2021	Reg'n Yr	-	222	2.1	193	415	163	252	2021	0	ľ		21%	920	1088	/sis
2022	gnated VLI	905	13	10	11	100	243	100	152	85	69	33	89	Total	-	312	2.6	193	505	283	222	2022	1			21%	920	1088	
2023	LDR lands a	163						50			35	33	45	2021	-	272	2.4	193	466	154	312	2023	2			21%	920	1088	
2024	and assum	283					61	50	51	43	34		44	2022	-	213	2.2	171	383	111	272	2024	ω		Z	21%	813	961	
2025	es 25% of \	154					61		51	42				2023	-	162	1.9	171	333	120	213	2025	4		IARCH 2021	21%	813	961	
2026	LI MDR lar	111					61		50					2024	-	65	1.4	171	236	74	162	2026	л			21%	813	961	
2027	nds will de	120		10		50	60							2025	-	0	0.4	171	65	0	65	2027	6			21%	813	961	
2028	velop as LE	74	13		11	50								2026	-							2028	7			21%	813	961	
2029	DR in accord	0												2027	-							2029	∞			21%	755	893	
2030	dance with	0												2028	-							2030	9			21%	755	893	
2031	2011 Land	0												2029	-							2031	10			21%	755	893	
2032	Needs Stu	0												2030	-				ĺ				Int						Su
2033	ıdy.	0												2031	-					X Pr	20		frastructur			Su	Est	Inf	bdivisions
2034		0												2032	-					oposed 20:	21 DC Stud		e Project T			bdivision t	timate as n	^f rastructur	Legend
2035		0												2033						22 GMIS Tir	'y construc		iming Lege			build-out d	10 applicat	e construct	
2036		0												2034						<u>ning Adjus</u>	tion timing		pui			late	ion receive	tion year	
2037		0												2035						stment	; maintain						ed to date		
8506		0												2036							ed								

Northeast Demand and Su	pplv Analv	sis											Su	bdivisions	Legend				
LDR Units/Year Watson Scenario		1088	1088	1088	961	961	961	961	961	893	893	893		In	frastructur	e construc	tion year		
* 95% on greenfield lands		920	920	920	813	813	813	813	813	755	755	755		E	timate as r	וס applicat	ion receiv	ed to date	
* 11% of unit construction as VLC	Capture %	%8	8%	8%	%8	8%	8%	8%	8%	8%	8%	%8		Su	ubdivision I	build-out c	late		
					Z	IARCH 2021													
	1	0	1	2	з	4	л	6	7	∞	9	10	Īn	frastructu	e Project T	iming Lege	end		
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031							
Opening Supply		33	0	0	69	208	265	402	568	802	950	1026		20)21 DC Stud	ly construc	tion timin	g maintair	led
Add: New Supply		0	0	143	204	122	202	231	299	208	137	163		X Pi	oposed 20	22 GMIS Tii	ming Adju	stment	
Subtotal		33	0	143	273	330	467	633	867	1010	1087	1189							
Subtract: Demand		74	74	74	65	65	65	65	65	60	60	60							
Years of Serviced Supply		0.4	0.0	1.9	4.2	5.1	7.2	9.7	13.3	16.7	18.0	19.7							
Remaining		0	0	69	208	265	402	568	802	950	1026	1129							
Subdivisions	Serviced Year F	Reg'n Yr	Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
39T-20502	2022	2023	164			82	82	0	0	0	0	0	0	0	0	0	0	0	0
HH-100	Serviced	2028	78						-		39	39	0	0	0	0	0	0	0
HH-101/102	Serviced	2027	ω							з	0	0	0	0	0	0	0	0	0
HH-103/205	Serviced	2024	368				61	61	61	61	61	63	0	0	0	0	0	0	0
HH-104/204	Serviced	2023	367			61	61	61	61	61	62	0	0	0	0	0	0	0	0
HH-105/206 Ph1 (assu 481 of 1021)	Serviced	2026	510						51	51	51	51	51	51	51	51	51	51	0
HH-105 Ph 2/206/701	2026	2027	552							55	55	55	55	55	55	55	55	55	57
HH-106/700	2031	2032	138												35	35	35	33	0
HH-202/203	Serviced	2028	∞								8	0	0	0	0	0	0	0	0
HH-207	2031	2028	44												44	0	0	0	0
FS-100	Serviced	2026	29						29	0	0	0	0	0	0	0	0	0	0
FS-200/201/202	Serviced	2028	23								23	0	0	0	0	0	0	0	0
CM-100/101	Serviced	2031	114											57	57	0	0	0	0
AP-701	2022	2030	31						-				31	0	0	0	0	0	0
Total			2429	0	0	143	204	122	202	231	299	208	137	163	242	141	141	139	57
Note: No application (grey) supply	r includes vac	ant OP Desi	gnated VLI	LDR lands	and assum	es 25% of \	vLI MDR lar	nds will de	velop as LI	OR in accord	dance with	2011 Land	Needs Sti	udy.					
Infrastructure Projects		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Kilally Road Watermain Ph2																			
Kilally South, East Basin, SWMF 1																			
Kilally South, East Basin, SWMF 2																			
Kilally South, East Basin, SWMF 3								-											

Infrastruc	Note: No	Total	JC-704/70.	JC-703	JC-702	JC-701	JC-204/20.	JC-202	JC-104	HR-100/10	T-19501	39T-92020	39T-92020	39T-17502	39T-06507	39T-06507	Subdivisic		
ture Project:	application (5				5)9/110/111/2		1D_10B			- -		Suc		
S	grey) suppl									201									
	y includes va		2039	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Year	Serviced	
2021	acant OP Des		2040	2025	2026	2026	2030	2029	2026	2028	2022	2023	2021	2022	2021	2023	Year	Reg'n	
2022	signated VL	1758	86	325	73	77	л	л	28	16	39	239	231	68	255	311	Total		
2023	.I LDR lands	162											77		85		2021		
2024	s and assun	295									39	60	77	34	85		2022		
2025	nes 25% of	318									0	60	77	34	85	62	2023		
2026	VLI MDR la	122									0	60	0	0	0	62	2024		
2027	ands will de	175		54							0	59	0	0	0	62	2025		
2028	evelop as L	220		54	37	39			28		0	0	0	0	0	62	2026		
2029	DR in acco	190		54	36	38			0		0	0	0	0	0	62	2027		
2030	rdance wit	70		54	0	0			0	16	0	0	0	0	0	0	2028		
2031	h 2011 Lan	59		54	0	0		б	0	0	0	0	0	0	0	0	2029		
2032	d Needs St	60		55	0	0	б	0	0	0	0	0	0	0	0	0	2030		
2033	udy.	0		0	0	0	0	0	0	0	0	0	0	0	0	0	2031		
2034		0		0	0	0	0	0	0	0	0	0	0	0	0	0	2032		
2035		0		0	0	0	0	0	0	0	0	0	0	0	0	0	2033		
2036		0		0	0	0	0	0	0	0	0	0	0	0	0	0	2034		
2037		0		0	0	0	0	0	0	0	0	0	0	0	0	0	2035		
2038		0		0	0	0	0	0	0	0	0	0	0	0	0	0	2036		

LDR Units/Year Watson Scenario	1088	1088	1088	961	961	961	961	961	893	893	893
* 95% on greenfield lands	920	920	920	813	813	813	813	813	755	755	755
* 11% of unit construction as VLC Capture %	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
				۷	MARCH 202	Ľ					
	l										
	0	1	2	3	4	л	6	7	∞	9	10
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Opening Supply	159	183	340	520	520	573	671	739	687	633	580
Add: New Supply	162	295	318	122	175	220	190	70	59	60	0
Subtotal	321	478	658	642	695	793	861	608	746	693	580
Subtract: Demand	138	138	138	122	122	122	122	122	113	113	113
Years of Serviced Supply	2.3	3.5	4.8	5.3	5.7	6.5	7.1	6.6	6.6	6.1	5.1
Remaining	183	340	520	520	573	671	739	687	559	580	467

Southeast Demand and Supply Analysis

-				(0
nfractructur	Su	Es	n	Subdivisions
e Proiect Timing Legend	bdivision build-out date	timate as no application received to date	frastructure construction year	Legend

ntrastructure Project liming Legend

2021 DC Study construction timing maintained X Proposed 2022 GMIS Timing Adjustment

		'n		,	,		1											
	_	2021	2022	2023	202 4	2025	2026	2027 6	7 2028	82029	9 2030	2031	Infras	tructure Pi	oject Timi	ng Legend		
Opening Supply		380	402	512	721	850	971	1276	1740	2054	2366	2673		2021 [OC Study co	onstruction	timing mai	intained
Add: New Supply		215	303	402	300	292	476	634	485	471	465	405	×	Propo	sed 2022 G	iMIS Timing	; Adjustme	nt
Subtotal		265	, 105	914	1201	1142	144/	016L	2225	2525	2831	30/8						
Years of Serviced Supply		3.1	3.6	47	6.0	<u>6,7</u>	8.5	11.2	13.0	15.9	17.9	19.4						
Remaining		402	512	721	850	971	1276	1740	2054	2366	2673	2919						
Subdivisions	Serviced	Reg'n Vear	Total	2021	2002	2002	2024	2025	2026	2027	8000	9079		0031	520	20132		135 203
39T-12503	Serviced	2021	268	89	89	90	0	0	0	0	0	0	0	0	0	0	0	0
39T-12503_3	Serviced	2022	114		57	57	0	0	0	0	0	0	0	0	0	0	0	0
39T-14502	Serviced	2024	5				б	0	0	0	0	0	0	0	0	0	0	0
39T-14504	Serviced	2022	64	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39T-15501_3	Serviced	2021	187	62	62	63	0	0	0	0	0	0	0	0	0	0	0	0
<u>39T-17503</u>	2022	2023	107			54	53	0	0	0	0	0	0	0	0	0	0	0
39T-17503_1	2022	2025	188					47	47	47	47	0	0	0	0	0	0	0
39T-16509	2021	2022	105		42	42	0	0 0	0 0	0	0	0 0	0	0	0 0		0 0	
BT-100/206	2025	2029	20T		J							49	48	0	0	0	0	0
BT-101/210/211	2026	2027	106							53	53	0	0	0	0	0	0	0
BT-200	Serviced	2023	27			27	0	0	0	0	0	0	0	0	0	0	0	0
BT-204	Serviced	2024	12				12	0	0	0	0	0	0	0	0	0	0	0
BT-212	2025	2027	22					22	0	0	0	0	0	0	0	0	0	0
BT-213/214	2023	2024	105						53	52	0	0	0	0	0	0	0	0
LB-100/201	2021	2026	121						30	30	30	31	0	0	0	0	0	0
LB-101/217/218	Serviced	2026	28				8	,	28	0	0	0	0	0	0	0	0	0
LB-102/202/203	Serviced	2024	33				33	0	0	0	0 0	0 0	0	0 0	0 0			
LB-105/210	0207	3000	77						2/	22								
LB-107/114/221	2030	2031	324				_			8	((54	54	54	54	54
LB-109	Serviced	2027	24							24	0	0	0	0	0	0	0	0
LB-204	Serviced	2029	20									20	0	0	0	0	0	0
LB-209	Serviced	2027	34							34	0	0	0	0	0	0	0	0
LB-212/213	2030	2031	20											20	0	0	0	0
LB-700	2030	2033	27													27	0	0
LW-102/206	Serviced	2027	15							15	0	0	0	0	0	0	0	0
LW-107/218 Ph 1	2022	2024	416				52	52	52	52	52	52	52	52	0	0	0	0
LW-107/218 Ph 2	2025	2027	208							52	52	52	52	0	0	0	0	0
LW-108	2027	2029	196									49	49	49	49	0	0	0
LW-110/700	2027	2033	298												50	50	50	50 5
LW-111/112/210/215/216	2033	2036	535														54	54 5
LW-113	2027	2030	503										50	50	50	50	50	50 5
LW-114	Serviced	2024	32				32	0	0	0	0	0	0	0	0	0	0	0
Note: No application (grey) supply	' includes va	cant OP Desi	gnated VLI	LDR lands a	and assume	es 25% of V	LI MDR lan	ds will dev	elop as LDR	in accorda	nce with 20	011 Land N	eds Study					

	* 11% of unit construction as VLC Capt	* 95% on greenfield lands	LDR Units/Year Watson Scenario	Southwest Demand and Supply
	ture %			/ Analysis
	21%	920	1088	
	21%	920	1088	
	21%	920	1088	
	21%	813	961	
NBCH 2021	21%	813	961	
	21%	813	961	
	21%	813	961	
	21%	813	961	
	21%	755	893	
	21%	755	893	
	21%	755	893	

MARCH 2021

Subdivisions Legend Infrastructure construction year Estimate as no application received to date Subdivision build-out date

	Serviced	Reg'n																	
Subdivisions	Year	Year	Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
LW-202	2025	2026	46						46	0	0	0	0	0	0	0	0	0	0
LW-205	2025	2028	34								34	0	0	0	0	0	0	0	0
LW-217	2022	2023	17			17	0	0	0	0	0	0	0	0	0	0	0	0	0
LW-219	2025	2026	15						15	0	0	0	0	0	0	0	0	0	0
LW-701/702 (West)	2027	2028	548								55	55	55	55	55	55	55	55	55
LW-701 (East)	2027	2030	539										54	54	54	54	54	54	54
TB-100/201/202 (West)	Serviced	2024	331				55	55	55	55	55	56	0	0	0	0	0	0	0
TB-100/201/203 (East)	2033	2034	336														56	56	56
TB-101/211	2026	2027	142							36	36	36	34	0	0	0	0	0	0
TB-105/210/213	2022	2024	179				45	45	45	44	0	0	0	0	0	0	0	0	0
TB-106/107/211/214/215	2022	2025	712					71	71	71	71	71	71	71	71	71	73	0	0
WO-101/102	Serviced	2024	13				13	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL			7340	215	303	402	300	292	476	634	485	471	465	405	383	361	446	373	373
Note: No application (grey) supply	' includes va	acant OP De	esignated V	LI LDR land	s and assur	nes 25% of	VLI MDR la	inds will di	evelop as l	DR in acco	rdance wit	h 2011 Lan	d Needs St	udy.					
Infrastructure Projects		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
A21a Lambeth Phase 1 Water																			
Pincombe SWMF 6																			
SS15A Sanitary Trunk Phase 2																			
North Lambeth SWM P7, P8 & Corri	idor																		
Tributary 12 Channel																			
Pincombe SWM P4 - West							×												
North Lambeth SWM P2 - South						×													
White Oaks SWM 3 - West																			
Bradley Ave - Jalna to Wharncliffe																			
SS15B Trunk Sewer																			
North Lambeth SWM P2 - North				×															
Pincombe SWM 3 - West																			
White Oaks SWM 3 - East																			
White Oaks Channel Complete Cor	rridor																		
Thornicroft Drain Improvements																			
North Lambeth SWM P3																			
A21b Lambeth Phase 2 Water																			
A20 Dingman Water																			
Whamcliffe Sewer - Campbell to B	ostwick																		
Pincombe SWM P5																			
White Oaks SWM P4 Phase 1																			
Old Oak SWM 2																			
Bradley Ave - Wonderland to Bostv	wick																		
Murray Marr SWM 1																			
North Lambeth SWM P1 - North																			
North Lambeth SWM P1 - South																			

Oxford S	Wickersu	Summer	Infrastru	Note: Nu	Total	WM-700	WM-103,	WM-100,	WH-101	WH-100/	BY-106	39T-205(T-15503	Subdivis	
<u>it - Commi</u>	on Water	crest Watu	cture Proj	o applicati			/107/108/.	/103		/200		ы В		ions	
ssioners I		er	ect Timin	on (grey)			200								
Rd to Wes			90	supply in											6
stdel Brn				icludes va		Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Serviced	Year	erviced
			2021	icant OP D		2026	2026	2026	2023	2023	2024	2022	2021	Year	Reg'n
			2022	esignated	660	134	74	4	130	116	119	39	44	Tota	
			202	VLI LDR la	4	-	-	-		0,	6		4	202	
			3 20	inds and a	4								4	1 20	
			24 2	ssumes	39							39	0	22 2	
			025	25% of VI	82				43	39		0	0	2023	
			2026	I MDR la	142				43	39	60	0	0	2024	
			2027	nds will o	142				43	39	60	0	0	2025	
			2028	develop as	108	67	37	4	0	0	0	0	0	2026	
			2029	LDR in acc	104	67	37	0	0	0	0	0	0	2027	
			2030	ordance w	0	0	0	0	0	0	0	0	0	2028	
			2031	ith 2011 La	0	0	0	0	0	0	0	0	0	2029	
			2032	nd Needs !	0	0	0	0	0	0	0	0	0	2030	
			2033	Study.	0	0	0	0	0	0	0	0	0	2031	
			2034		0	0	0	0	0	0	0	0	0	2032	
			2035		0	0	0	0	0	0	0	0	0	2033	
			2036		0	0	0	0	0	0	0	0	0	2034	
			2037		0	0	0	0	0	0	0	0	0	2035	
			2038		0	0	0	0	0	0	0	0	0	2036	

Servired	Serviced	Serviced	Serviced	Year	Convinod		
500C	2024	2022	2021	Year	000		
116	119	39	44	Total			
			44	2021			
		39	0	2022			
ρε		0	0	2023			
ρç	60	0	0	2024			
95	60	0	0	2025			
D	0	0	0	2026			
n	0	0	0	2027			
D	0	0	0	2028			
0	0	0	0	2029			
D	0	0	0	2030			
O	0	0	0	2031			
n	0	0	0	2032			
D	0	0	0	2033			
0	0	0	0	2034			
0	0	0	0	2035			
					- 1		

West Demand and Supply Analysis												Subdivisions Legend
LDR Units/Year Watson Scenario	1088	1088	1088	961	961	961	961	961	893	893	893	Infrastructure construction year
* 95% on greenfield lands	920	920	920	813	813	813	813	813	755	755	755	Estimate as no application received to date
* 11% of unit construction as VLC Capture %	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	Subdivision build-out date
				2	1ARCH 202	1						
	0	1	2	з	4	л	6	7	8	9	10	Infrastructure Project Timing Legend
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	
Opening Supply	268	174	75	19	39	59	45					2021 DC Study construction timing maintain
Add: New Supply	44	39	82	142	142	108	104					X Proposed 2022 GMIS Timing Adjustment
Subtotal	312	213	157	161	181	167	149					
Subtract: Demand	138	138	138	122	122	122	122					
Years of Serviced Supply	2.3	1.5	1.1	1.3	<u>1.5</u>	1.4	1.2					

2021 DC Study construction timing maintained Proposed 2022 GMIS Timing Adjustment

174 2.3

75

39

59

27

1.4 £

Ľ 19

Remaining

Years of Serviced Supply Subtract: Demand

Appendix B – 2022 GMIS Project Tables and Figures

Table A1: GMIS ANNUAL UPDATE 2022

DETAILED LIST OF WORKS AND COSTS BY AREA

5 YEAR PROJECTS (2022 to 2026)

2021 DC	GMIS 2022	P	ROJECT DESCRIPTION						
TIMING	TIMING	DC ID	GENERAL DESCRIPTION	Service	TOTAL COST		GROWTH		NON-GROWTH
		BUILT AREA							
2021-2038	2021-2038	DC19MS1002	Storm Sewer - Built Area Works	SWM	\$61,445,800	55.5%	\$34,102,419	44.5%	\$27,343,381
2021-2038	2021-2038	DC19WW1002	Wastewater Servicing - Built Area Works	Wastewater	\$29,521,700	37.6%	\$11,100,159	62.4%	\$18,421,541
2021-2038	2021-2038	DC19WD1002	Watermain - Built Area Works	Water	\$724,000	56.0%	\$405,440	44.0%	\$318,560
			TOTAL BUILT AREA	PROJECTS	\$91,691,500		\$45,608,018		\$46,083,482
		<u>NORTH</u> Stoney Creek							
2022	2023	DC14MS0036	Stoney Creek SWMF 8	SWM	\$1,851,200	100.0%	\$1,851,200	0.0%	\$0
2023	2023	DC14MS0033	Stoney Creek SWMF 7.1	SWM	\$1,799,600	100.0%	\$1,799,600	0.0%	\$0
2025	2025	DC14MS0034	Stoney Creek SWMF 10	SWM	\$2,715,400	100.0%	\$2,715,400	0.0%	\$0
			TOTAL STONEY CREEK	PROJECTS	\$6, 366, 200		\$6, 366, 200		\$0
		Sunningdale	•	•					
2023	2023	DC14RS0017	Sunningdale Road - Wonderland to 150m west of Richmond (2 to 4 through lanes)	Roads	\$21,839,700	92.8%	\$20,267,242	7.2%	\$1,572,458
			TOTAL SUNNINGDALE	PROJECTS	\$21,839,700		\$20,267,242		\$1,572,458
		Uplands							
2022	2022	DC14MS0038	Sunningdale SWMF E1	SWM	\$3,249,400	100.0%	\$3,249,400	0.0%	\$0
			TOTAL UPLANDS	PROJECTS	\$3,249,400		\$3,249,400		\$0
			TOTAL NORTH	PROJECTS	\$31,455,300		\$29,882,842		\$1,572,458
		NORTHEAST							
		Huron Heights							
2022	2022	DC14MS0009	Kilally South, East Basin SWM 1 Kilally (A30) Growth Area - Kilally Road,	SWM	\$5,542,000	100.0%	\$5,542,000	0.0%	\$0
2022	2023	DC14WD0040	(Highbury to Clarke) Phase 2	Water	\$7,031,200	100.0%	\$7,031,200	0.0%	\$0
2026	2026	DC21MS0001	Kilally South, East Basin SWM 2		\$5,628,000	100.0%	\$5,628,000	0.0%	\$U
		WEOT	TOTAL NORTHEAST	PROJECTS	\$12,573,200		\$12,573,200		\$0
		<u>WESI</u>							
2025	2025	DC14RS0052	Commissioners to Westdel Bourne (2 to 4	Roads	\$8,919,700	92.0%	\$8,206,124	8.0%	\$713,576
			TOTAL WEST	PROJECTS	\$8 919 700		\$8 206 124		\$713 576
		SOUTHWEST			\$6,515,100		<i>\$</i> 0,200,124		\$110,010
		Bostwick							
2025	2023	DC21MS0010	North Lambeth SWMF P2 - North	SWM	\$2,548,400	100.0%	\$2,548,400	0.0%	\$0
2023	<u>2025</u>	DC14MS0020 North Lambeth SWMF P2 - South SWM \$2,385,700 100.0% \$2,385,700 0.0%					0.0%	\$0	
2026	2026	DC14MS0019 North Lambeth P3 (Dingman Tributary D4) SWM \$4,204,400 100.0% \$4,204,400 0.0				0.0%	\$0		
2026	2026	DC21MS0012	C21MS0012 Thornicroft Drain Natural Channel SWM \$4,272,700 42.0% \$1,794,534 58.0%				58.0%	\$2,478,166	
			TOTAL BOSTWICK	PROJECTS	\$13,411,200		\$10,933,034		\$2,478,166
		Longwoods							
2023	2023	DC14RS0022	Bradley Avenue Extension Phase 1 - Jalna to Wharncliffe (New 4 through lanes)	Roads	\$11,720,000	100.0%	\$11,720,000	0.0%	\$0
2022	2026	DC21MS0005	Pincombe Drain SWMF P4 - West	SWM	\$2,315,700	100.0%	\$2,315,700	0.0%	\$0
2022	2022	DC14MS0039	White Oaks SWMF 3 - West	SWM	\$3,006,800	100.0%	\$3,006,800	0.0%	\$0
2025	2025	DC21MS0007	White Oaks SWMF 3 - East	SWM	\$2,193,600	100.0%	\$2,193,600	0.0%	\$0
2025	2025	DC21MS0008	White Oaks Channel Complete Corridor (Wharncliffe to White Oaks 3E)	SWM	\$7,749,400	68.1%	\$5,277,341	31.9%	\$2,472,059
2025	2025	DC21MS0004	Pincombe Drain SWMF P3 - West	SWM	\$2,918,000	100.0%	\$2,918,000	0.0%	\$0
2026	2026	DC14WD010b	Lambeth Phase 2 (A21b) - Wonderland Rd.	Water	\$1,045,400	95.0%	\$993,130	5.0%	\$52,270
2026	2026	DC14WD0009	Longwoods (A20) - Dingman Dr. (Wonderland	Water	\$6,856,900	100.0%	\$6,856,900	0.0%	\$0
			TOTAL LONGWOODS	PROJECTS	\$37,805,800		\$35.281.471		\$2.524.329
		Talbot	102 201010000		\$5.,500,000		<i>ç</i> ; <u>,</u> ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;		\$2,52 ¥,620
0005	0005		SS15B - North Talbot Growth Area Greenway	14/2242	¢2,022,222	400.001	¢2,022,022	0.00/	
2025	2025	DC14WW00010	PCP sewershed	vvasiewater	\$3,036,000	100.0%	\$3,036,000	0.0%	\$0
			TOTAL TALBOT	PROJECTS	\$3,036,000		\$3,036,000		\$0
				PROJECTS	\$54,253,000		\$49,250,505		\$5,002,495
		701	AL 5 YEAR PROJECTS (2022)	to 2026)	\$204,520,700		\$151,148,689		\$53,372,011

Note: Timing refers to the year of construction.

(E&O Excepted)



Table A2: GMIS - GMIS ANNUAL UPDATE 2022 DETAILED LIST OF WORKS AND COSTS BY AREA 6-10 YEAR PROJECTS (2027 to 2031)

2019 DC STUDY TIMING	2021 DC STUDY TIMING	DC ID	PROJECT DESCRIPTION GENERAL DESCRIPTION	SERVICE	TOTAL COST		GROWTH	ı	ION-GROWTH
TIMING	TIMING	NORTHEAST	r						
		Huron Heigh	L Its						
2031	2031	DC21MS0002	Kilally South, East Basin SWM 3	SWM	\$2,587,000	100.0%	\$2,587,000	0.0%	\$0
			TOTAL NORTHEAST	PROJECTS	\$2,587,000		\$2,587,000		\$0
		SOUTHWES	Т						
		Bostwick	-						
2028	2028	DC14RS0047	Bradley Avenue Extension - Wonderland to Bostwick (New 4 through lanes)	Roads	\$8,283,500	100.0%	\$8,283,500	0.0%	\$0
			TOTAL BOSTWICK	PROJECTS	\$8,283,500		\$8,283,500		\$0
		Lambeth							
2030	2030	DC14MS0022	North Lambeth SWMF P6 - South	SWM	\$2,663,700	100.0%	\$2,663,700	0.0%	\$0
2027	2027	DC19WW1003	Wharncliffe Road South - Campbell Street to Bostwick Road	Wastewater	\$1,066,500	90.0%	\$959,850	10.0%	\$106,650
			TOTAL LAMBETH	PROJECTS	\$3, 730, 200		\$3,623,550		\$106,650
		Longwoods							
2027	2027	DC14MS0031	Pincombe Drain SWMF 5	SWM	\$1,945,600	100.0%	\$1,945,600	0.0%	\$0
2027	2027	DC14MS0040	White Oaks SWMF 4 - Phase 1	SWM	\$4,505,600	100.0%	\$4,505,600	0.0%	\$0
2027	2027	DC19MS0005	Old Oak SWM 2	SWM	\$2,982,300	100.0%	\$2,982,300	0.0%	\$0
2029	2029	DC14MS0014	Murray Marr SWMF 1	SWM	\$3,174,400	100.0%	\$3,174,400	0.0%	\$0
			TOTAL LONGWOODS	PROJECTS	\$12,607,900		\$12,607,900		\$0
			TOTAL SOUTHWEST	PROJECTS	\$24,621,600		\$24,514,950		\$106,650
		ΤΟΤΑ	AL 6-10 YEAR PROJECTS (2027	to 2031)	\$27,208,600		\$27,101,950		\$106,650

Note: Timing refers to the year of construction.

Table A3: GMIS ANNUAL UPDATE 2022ODETAILED LIST OF WORKS AND COSTS BY AREAO

TOTAL COST

SERVICE

GROWTH

(E&O Excepted)

NON-GROWTH

\$0

		Talbot						
2033	2033	DC14MS0017	North Lambeth SWMF P1 - North	SWM	\$2,387,700	100.0%	\$2,387,700	0.0%
2033	2033	DC21MS0009	North Lambeth SWMF P1 - South	SWM	\$2,387,700	100.0%	\$2,387,700	0.0%
			TOTAL TALBOT	PROJECTS	\$4,775,400		\$4,775,400	
			TOTAL SOUTHWEST	PROJECTS	\$4,775,400		\$4,775,400	
		TOTAL 10+	YEAR PROJECTS (2032 and E	Beyond)	\$4,775,400		\$4,775,400	

10+ YEAR PROJECTS (2032 and Beyond)

PROJECT DESCRIPTION

GENERAL DESCRIPTION

Note: Timing refers to the year of construction.

2021 DC STUDY TIMING

DC ID

SOUTHWEST

2019 DC STUDY TIMING





Appendix C – List of GMIS Stakeholders

Adam Carapella	Tricar Group
Alan Drewlo	Drewlo Holdings Inc
Alasdair Beaton	Urban League
Ali Soufan	York Development Group
Allan Churchill	Fusion Homes
Amanda Stratton	Urban League
Andrea & John Ross	Landowner
Andrew L. Scott	СМНС
B. Scott	1173735 Ontario Ltd.
Ben Farhi	Farhi Holdings Corporation
Ben Puzanov	TVDSB
Bernie Bierbaum	BlueStone Properties
Bill Veitch	MTE Consultants Inc.
Blair Doman	Doman Developments, Inc.
Bob Stratford	R. W. Stratford Consulting Inc
Carrie O'Brien	Drewlo Holdings Inc
Chris Bourdeau	Futurestreets Inc.
Chris Doering	DevEng
Chris Hendriksen	Stantec
Christopher Lee	Foxwood Developments
Chris Leigh	Tricar Group
Christine Campbell	Auburn Developments Inc.
Christopher Dunn	SmartCentres
Colin Bierbaum	BlueStone Properties
Corri Marr	Foxwood Developments
Craig Linton	DevelPro Land Services
Dara Honeywood	Z Group
Dave Nuttall	DLN Group Inc.
Dave Schmidt	Corlon Properties Inc.
David Ailles	Consultant
David Tennant Jr.	Dave Tennant Urban Concepts
David Tennant Sr.	Hampton Group Inc
Don de Jong	Tridon Group
Doug Stanlake	Consultant
Eric Saulesleja	GSP Group
Farhad Noory	Royal Premier Homes
George Bikas	Drewlo Holdings Inc
Gloria McGinn-McTeer	Urban League
Gord Thompson	Corlon Properties Inc.
Greg Bierbaum	Old Oak Properties
Jamie Crich	Auburn Developments Inc.
Jeff Paul	Stantec
Jeff Willick	Decade Group Inc.
Jim Bujouves	Farhi Holdings Corporation
Jim Sheffield	Nicholson Sheffield Architects
Joe Pereira	Sutton Realty
Jonathon Aarts	Orange Rock
Josh Smith	DevEng
Julian Novick	Wastell Homes
Laverne Kirkness	London Area Planning Consultants
Lisa Lansink	Realtor
Lois Langdon	London Home Builders Association
Louie Maisano	Homebuilder
Mardi Turgeon	BlueStone Properties
Mark Henderson	Director, Business Liaison
Maureen Zunti	Sifton Properties Limited
Michael Frijia	Southside Group

Mike Howe	Norquay Developments Limited
Mike Johnson	Urban Metrics Inc.
Mike Wallace	London Development Institute
Paul Hinde	Ironstone Building Company
Peter Sergautis	Extra Realty Limited
Phil Masschelein	Sifton Properties Limited
Phillip Abrantes	Kape Developments
Ric Knutson	Kenmore Homes (London) Inc
Richard Sifton	Sifton Properties Limited
Ryan Hern	DevEng
S. Graham	SegwayGroup
Sanjeev Sindwani	Foxwood Developments
Sandy Levin	Urban League
Shmuel Farhi	Farhi Holdings Corporation
Stephen Stapleton	Auburn Developments Inc.
Sue Wastell	Wastell Homes
Tim Stubgen	Stantec
Tony Fediw	AECOM
Tony Marsman	Rembrandt Homes
Vito Frijia	Southside Group
Wes Kinghorn	Urban League

Appendix D – Rationale for 2022 GMIS Project Timing Adjustments

The following sections provide commentary and rationale for project timing adjustments identified in Table 1 of the 2022 GMIS Annual Review & Update report.

Adjustments to Previously Timed 2022 Projects:

Stoney Creek SWM 8: This stormwater management facility in the North GMIS Area services a portion of a subdivision that is currently under review (39T-07502). During the GMIS stakeholder interviews, the landowner/developer identified this project as not being needed in 2022 as the bulk of the proposed subdivision lands have access to external servicing and the lands captured by Stoney Creek SWM 8 would form part of a later phase. Furthermore, the lands where the facility would be sited are not available as they are not currently the subject of a development application. Staff support rescheduling this project to 2023 to avoid premature investment.

Pincombe SWM P4 - West: During the GMIS stakeholder interviews, the landowner/developer of the lands for which this facility would serve identified this project as not being needed in 2022. A deferral of this project was requested to align the project with their planned development timing. As no planning application has been submitted on the benefitting lands, Staff recommend rescheduling this project to 2026 to avoid premature investment. Rescheduling will have the added benefit of improving the financial health of the SWM DC reserve fund.

Kilally Water (A20) Phase 2: This watermain would extend the water system east along Kilally Road from Webster Street to Clarke Road in the Northeast GMIS area. The 2021 DC Study Update identifies a construction date of 2022. The roadway for this portion of Kilally Road is timed to be upgraded in 2030 once it is needed to respond to increased traffic volumes associated with area development. Given the topography, the future road project is expected to require significant grade changes and cut and fill. To ensure that the upcoming watermain project's location and depth is aligned with the future road design, it is proposed to advance components of the road design work, particularly as it relates to determining the ultimate road profile, to 2021.

Water Engineering has requested the Kilally Water project be deferred from 2022 to 2023 so that the watermain design work can be coordinated with the road design work. Staff are recommending advancing the Kilally Road roadwork design to 2021 and rescheduling the Kilally Water project from 2022 to 2023 to ensure that the area's GMIS projects are being efficiently designed and constructed.

Adjustments to Previously Timed 2023 Projects:

North Lambeth SWM P2 - South: As part of the Dingman Phase 1 Environmental Assessment, the former North Lambeth P2 SWM facility was broken into two distinct projects; P2-North and P2-South. Both facilities solely benefit the same developer/landowner. At their request, in the 2021 DC Study Update, P2-South was timed for 2023 and P2-North was timed for 2025. During the 2022 GMIS stakeholder interviews, the landowner/developer indicated that the direction they are intending to develop the lands has changed and they would like to switch the timing between the two projects. They have requested the deferral of North Lambeth SWM P2 – South from 2023 to 2025. Staff support the request to defer the project until 2025.

Adjustments to Previously Timed 2025 Projects:

North Lambeth SWM P2 - North: Further to the above, during the GMIS stakeholder interviews the benefitting developer/landowner requested to switch the timing between North Lambeth P2-North and P2-South and requested that North Lambeth SWM P2 – North be advanced from 2025 to 2023. Staff are recommending that North Lambeth SWM P2 – North be advanced to 2023 as it would be offset by the deferral of North Lambeth SWM P2 – South to 2025.

Appendix E – Detailed Commentary Regarding Developer Infrastructure Requests

Staff are unable at this time to support the project acceleration requests identified in Table 2 of the GMIS report for the following reasons:

Pincombe SWM 3 - West: Foxwood Developments has requested the acceleration of Pincombe SWM 3 - West from 2025 to 2022. Staff do not recommend the requested acceleration of this facility due to the pending availability of additional development lands in the area. In addition, the facility has not been designed and the necessary lands to site the facility are not the subject of an active planning application and thus have not been secured. In discussions with Environment and Infrastructure, securing the lands, gaining the necessary approvals and designing the facility for a 2022 construction date would not be feasible. Until such time as an application is received and the stormwater needs of the proposed development are known, it is premature to consider an acceleration.

Kilally Road – Webster to Clarke: Drewlo Holdings has requested the acceleration of the Kilally Road – Webster to Clarke project from 2030 to 2022. Staff do not recommend the requested acceleration as the need for this growth project is triggered by increased traffic volumes associated with the build-out of the area. As area development has mostly not yet occurred, accelerating this project would be premature. Moreover, DCs are being collected for this project based on receiving funds as growth occurs and then using these funds to construct the project. Advancing and constructing the project well in advance of growth occurring would result in a much shorter DC recovery period and the subsequent need for unplanned debt financing. This request would have negative impacts on the health of the Roads DC Reserve Fund and is not recommended.

However, with the topography in the area it is anticipated that the future road project will require significant grade changes and cut and fill. In advance of the road project, a Kilally Water project is planned that would extend the water system east to Clarke Road. To ensure that this upcoming watermain project's location and depth is coordinated with the future roadwork, Staff are recommending that components of the Kilally Road design work (including determining the ultimate road profile) be advanced to 2021. Advancing portions of the road project may be considered as part of a future GMIS update if the more detailed road design work and assessment determines that the specific work is needed to facilitate the GMIS watermain project.

North Lambeth SWM P1 – North and P1 – South: Southside Group has requested the acceleration of these two stormwater management facilities from 2033 to 2026. Staff do not recommend the requested acceleration of these facilities due to the pending availability of additional development lands in the area. However, as the proposed timings would be beyond the current DC By-law's 2024 expiration date, they can be considered comprehensively through the 2025 DC master planning process set to begin in late 2022. This will ensure that these longer-range requests are considered and coordinated with greenfield area lot supply and demand, any technical issues are resolved, and timing and cost estimates are reviewed in the context of implications on the recalculated 2025 DC rate.

South Lambeth Sanitary Servicing: Farhi Holdings has requested that sanitary servicing be provided to their lands in Lambeth on Colonel Talbot Road south of Main Street. As there are currently no sanitary projects identified for this work in the DC Background Study, no funding is being recovered for through DCs. GMIS is limited to adjusting the timing of projects identified in the DC Background Study thus this request is beyond the scope of GMIS.