



City of Spruce Grove: Offsite Levy Rates Review

June 24th, 2022

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June 24th, 2022

City of Spruce Grove
315 Jespersen Avenue
Spruce Grove, Alberta
T7X 3E8

RE: City of Spruce Grove Offsite Levy Rates Review

Enclosed is our report underpinning the review of the City's offsite levy rates. If you have any questions do not hesitate to contact me.

Respectfully,

A handwritten signature in black ink, appearing to read "Greg Weiss", followed by a long horizontal line extending to the right.

Greg Weiss
President

1 DOCUMENT INFORMATION

Version Number	Revision Date	Description
1.0	June 15 th , 2022	Draft
2.0	June 24 th , 2022	Final

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3 INTRODUCTION

3.1 Introduction

Bylaw C-1117-20 established by the City of Spruce Grove (“the City”) in 2020 defines offsite levy charges for roads, water, and sanitary infrastructure in the municipality. The City wishes to update this bylaw, amending certain infrastructure in alignment with the City’s current capital plans, ensuring updated costs and development forecasts are reflected fairly and equitably in rates, and adding recreation, fire, and library infrastructure.

This report outlines the methodology and information used to update the offsite levy charges for the City, as well as other key findings and recommendations.

3.2 Methodology

The City maintains various capital plans, and these plans have been used to generate key inputs for this offsite levy rates review. City staff and their engineering advisors reviewed existing plans and identified offsite projects for roads, water, sanitary, recreation, fire, and library¹. The City’s review also included determination of cost allocation to existing development, future development, benefiting areas, etc.

Support provided by CORVUS Business Advisors included:

- Incorporation of offsite levy area measurements and land development forecasts (provided by City staff).
- Incorporation of infrastructure costs and allocation percentages for existing development, new development, and other parties (provided by City staff).
- Reconciliation of offsite levy reserve opening balances (historical details provided by City staff).
- Development of offsite levy rates and associated report.
- Review of offsite levy rates with staff and Council.

Offsite levy rates within the City’s offsite levy model are forecast using a rolling 25-year review period. During this review, a cut-off date of **December 31st, 2021** was established (the most recent year-end when the project commenced), and so the 25-year review period stems from **2022 to 2046**. Project expenditures, offsite levy receipts etc. were gathered as “actuals” from City financial records up to the cut-off date. Beyond the cut-off date, all financial details are estimates. When the City completes its next rate update, information from January 1st, 2022 up to the new cut-off date will be converted from estimates to actuals.

Costs that benefit development prior to and within the review period are included in rates. Costs that benefit development beyond the review period (called “financial oversizing”) are excluded from rates. In future years, when rates are updated, and the rolling 25-year period

¹ It is not within CORVUS’ scope of work to review or assess capital plans. Infrastructure requirements, costs, allocations etc. are determined by the municipality and their engineering/consulting advisors.

moves further out, offsite infrastructure costs beyond 2046 will gradually find their way into rates.

4 KEY FINDINGS

Key findings pertaining to the update of City offsite levy rates are as follows:

- Offsite infrastructure costs to be included in the offsite levy bylaw total approximately **\$244.11 million** (current dollars). An overview of offsite infrastructure costs and maps is provided in Appendices B1, C1, D1, E1, F1 and G1.

Before determining how the infrastructure costs will be allocated to parties that benefit (e.g., existing development, new development, other municipalities etc.), financing provided by way of special ear-marked/conditional grants and other contributions are deducted from offsite infrastructure costs. For this update, the City has identified approximately **\$3.35 million** in special grants and contributions. An overview of special grants and contributions and resulting net costs is provided in Appendices B2, C2, D2, E2, F2, and G2.

The residual benefit allocated to existing development (the City's share) is approximately **\$0.00**. The share allocated to other stakeholders (e.g., neighbouring municipalities) is **\$0.00**.

That portion of cost which is allocated to future development totals approximately **\$240.75 million** (\$59.47 million + \$181.28 million) and is based on the allocations shown in Appendices B4, C4, D4, E4, F4, and G4. However, a portion of the cost allocated to future development is beyond the 25-year review period (called "financial oversizing"). Financial oversizing is determined based on the anticipated year of construction (construction staging) which is provided in Appendices B3, C3, D3, E3, F3, and G3.

Of the **\$240.75 million** in total offsite infrastructure costs allocated to future development, the share allocated to future development that is included in rates today (the offsite levy share) is approximately **\$181.28 million**, as shown in the table below. A complete summary of offsite infrastructure net cost "flow-thru" is provided in Appendices B6, C6, D6, E6, F6, and G6.

Summary of Infrastructure Costs & Allocations

Infrastructure	Special Grants & Contributions	Muni Share of Costs	Other Stakeholders' Share of Costs	Developer Cost Beyond 25 Yrs (Financial Oversizing)	Developer Costs (In Rates)	Total Costs
Transportation	\$ 151,961	\$ -	\$ -	\$ 38,698,001	\$ 86,627,736	\$ 125,477,698
Water	\$ -	\$ -	\$ -	\$ 1,281,600	\$ 25,139,149	\$ 26,420,749
Sanitary	\$ 1,222,398	\$ -	\$ -	\$ 13,654,923	\$ 27,223,792	\$ 42,101,113
Recreation	\$ -	\$ -	\$ -	\$ -	\$ 26,643,505	\$ 26,643,505
Fire	\$ 1,980,000	\$ -	\$ -	\$ 5,834,400	\$ 5,385,600	\$ 13,200,000
Library	\$ -	\$ -	\$ -	\$ -	\$ 10,264,903	\$ 10,264,903
Total	\$ 3,354,359	\$ -	\$ -	\$ 59,468,924	\$ 181,284,685	\$ 244,107,968

Before allocating infrastructure costs to benefitting lands, offsite levy costs must be reduced by the amount of levies collected to date. Up to December 31st, 2021, the City has collected **\$43.30 million** as shown in Appendices B5, C5, D5, E5, F5 and G5.

Summary of Offsite Levy Collections

Levies Collected To Date	
Transportation	\$ 24,484,993
Water	\$ 12,376,282
Sanitary	\$ 6,442,848
Recreation	\$ -
Fire	\$ -
Library	\$ -
Total	\$ 43,304,123

- To facilitate the allocation of infrastructure costs to those lands that benefit from the infrastructure, the City is parsed into **11** offsite levy areas. The area boundaries, numbering schema, and area measurements are described in *Appendix A* along with an offsite levy map; and, an overview of offsite infrastructure allocations to each benefitting area is provided in Appendices B7, C7, D7, E7, F7, and G7.
- To calculate offsite levy rates, it is necessary to forecast the amount of land that will develop during the 25-year review period. Land development forms the denominator of the rate calculation. A larger denominator reduces rates but could potentially result in under-collection thereby placing an increased burden on taxpayers. A smaller denominator increases rates but could potentially result in over-collection thereby placing an increased burden on future development. Accordingly, land development forecasts need to be (a) reasonable and reflect current planning assumptions including the current pace of development in the community, and (b) updated regularly.

For this update, the City is forecasting development of approximately **892 ha.** over the 25-year review period. The land development forecast and underpinning assumptions are shown in *Appendix A*.

- **Offsite Levy Accounts.** The City is managing offsite levy receipts and withdrawals via 3 accounts, in alignment with MGA requirements (i.e., one account for each infrastructure type). The reason that an account is required for each infrastructure type is because offsite levies can only be used for the type of infrastructure for which they were collected (e.g., water levies can only be used to construct water offsite infrastructure, not sanitary infrastructure etc.). The City will need to establish 3 more accounts (one for each of the new infrastructure types being added to the bylaw). An overview of updated account balances is shown in Appendices B8, C8, D8, E8, F8, and G8.
- **Interest.** Offsite levy accounts (both actual and forecast) are impacted by interest. Actual reserve inflows and forecast account balances that are in a positive position earn interest (as required by the MGA). Actual reserve outflows and forecast account balances that are in a negative position are charged interest (forecast balances that are negative indicate that front-ending will be required).

An overview of account interest rates and forecast balances over the 25-year review period is shown in Appendices B9, C9, D9, E9, F9, and G9.

- **Front-ending.** Front-ending is an extremely important concept that underpins rigorous management of offsite levies. Front-ending represents debts owed by future

development to the municipality for past construction undertaken by the municipality on behalf of future development—i.e., a municipality will often pay for its share of an offsite infrastructure project in addition to that portion of the project which benefits future development when offsite levy reserve balances are insufficient to pay for future development’s share of the project.

Because front-ending balances represent debts owed to the municipality, they need to be clearly reflected in official City documents such as levy account balances, financial statements (e.g., front-ending notes), or accounts receivables, etc. This documentation enables the City to collect on these debts as future development occurs, and offsite levies are collected.

At end 2021, the overall net front-ending due to the City was **\$21.97 million**. A complete reconciliation of balances for each of the accounts is provided in Appendices B8, C8, D8, E8, F8, and G8.

Summary of Account Balances & Front-ending

Reserve Balance	
Transportation	\$ (12,429,718)
Water	\$ (1,983,075)
Sanitary	\$ (7,559,966)
Recreation	\$ -
Fire	\$ -
Library	\$ -
Total	\$ (21,972,759)

5 RATES

For future development to pay for its share of the **\$244.11 million** infrastructure costs either built already or contained in the City’s future capital plans, rates are **\$152,084 per net hectare** on a weighted average basis. These rates reflect the actual cost of infrastructure required to facilitate development in the City. A comparison of offsite levy rates with other municipalities is summarized in *Appendix H*.

Since the last update, rates are increasing an average of **~78%**. The primary reason for this increase is the addition of new infrastructure types and associated costs within the 25-year review period.

Summary of Offsite Levy Charges (Per Net Ha) ²

	Transportation	Water	Sanitary	Recreation	Fire	Library	Total
High	\$ 70,265	\$ 85,167	\$ 44,450	\$ 27,517	\$ 6,650	\$ 10,601	\$ 210,930
Low	\$ 70,265	\$ 986	\$ -	\$ 27,517	\$ 6,650	\$ 10,601	\$ 116,019
Weighted Average	\$ 70,265	\$ 13,753	\$ 23,298	\$ 27,517	\$ 6,650	\$ 10,601	\$ 152,084

² Highs, lows, and weighted averages are shown for information purposes only. Developers pay the actual offsite levy charges pertaining to their specific offsite levy area.

Area #	Transportation Levies	Water Levies	Sanitary Levies	Recreation Levies	Fire Levies	Library Levies	Total
1.0	\$ 70,265	\$ 986	\$ -	\$ 27,517	\$ 6,650	\$ 10,601	\$ 116,019
2.0	\$ 70,265	\$ 1,475	\$ 19,098	\$ 27,517	\$ 6,650	\$ 10,601	\$ 135,606
3.0	\$ 70,265	\$ 1,475	\$ 44,450	\$ 27,517	\$ 6,650	\$ 10,601	\$ 160,958
4.0	\$ 70,265	\$ 1,757	\$ 3,898	\$ 27,517	\$ 6,650	\$ 10,601	\$ 120,689
5.0	\$ 70,265	\$ 3,925	\$ 728	\$ 27,517	\$ 6,650	\$ 10,601	\$ 119,686
6.0	\$ 70,265	\$ 85,167	\$ -	\$ 27,517	\$ 6,650	\$ 10,601	\$ 200,201
7.0	\$ 70,265	\$ 1,757	\$ -	\$ 27,517	\$ 6,650	\$ 10,601	\$ 116,791
8.0	\$ 70,265	\$ 17,025	\$ -	\$ 27,517	\$ 6,650	\$ 10,601	\$ 132,058
9.0	\$ 70,265	\$ 14,472	\$ -	\$ 27,517	\$ 6,650	\$ 10,601	\$ 129,505
10.0	\$ 70,265	\$ 17,514	\$ 36,332	\$ 27,517	\$ 6,650	\$ 10,601	\$ 168,879
11.0	\$ 70,265	\$ 59,565	\$ 36,332	\$ 27,517	\$ 6,650	\$ 10,601	\$ 210,930

6 RECOMMENDATIONS

CORVUS recommends the following:

1. Implement the updated offsite levy rates outlined in Section 5.
2. Amend the offsite levy account balances in City documentation to align with Appendices B8, C8, D8, E8, F8, and G8. In so doing, remove excess cash from reserves (if any) to pay down front-ending debts.

7 ACKNOWLEDGEMENTS

CORVUS Business Advisors would like to thank all City of Spruce Grove staff who supported the work of this rate update.

8 DISCLAIMER

CORVUS Business Advisor has relied upon the City of Spruce Grove and its engineering/consulting advisors to provide all the data and information used to construct the offsite levy model and create the rates, such as planning data and assumptions, development forecasts and assumptions, infrastructure costs and costs estimates, allocations to benefitting parties, allocation to benefitting areas, historical financial details, and other assumptions etc. As such, CORVUS Business Advisors makes no guarantee as to the accuracy of the input data and information provided by these groups or the results that stem from this data and information.

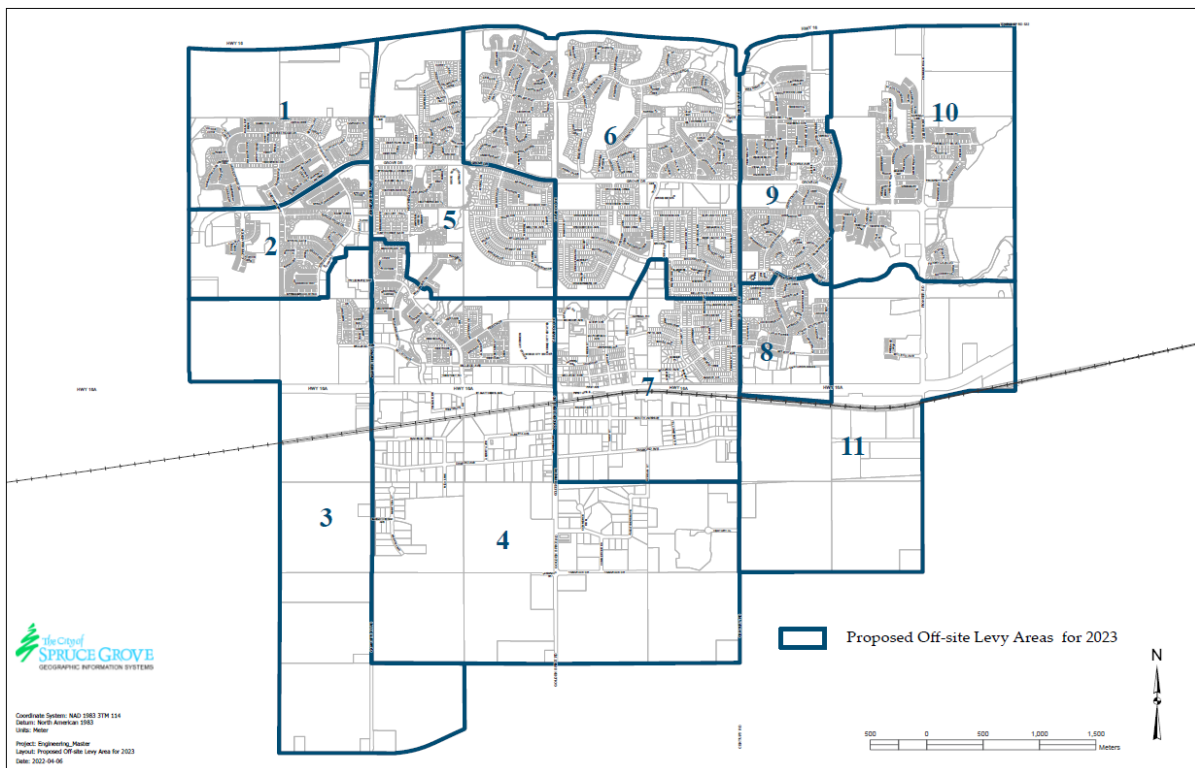
Offsite levy rates are not intended to stay static; they are based upon educated assumptions and the best available information of the day. Planning assumptions, cost estimates etc. can change each year. Accordingly, the Municipal Government Act requires that offsite levy rates be updated with the most available information on a regular basis and a status report provided to Council annually. When information changes, it will be reflected in a future update, and rates adjusted accordingly.

APPENDIX A: OFFSITE LEVY AREAS AND STAGING

A1. Offsite Levy Areas

The City is parsed into **11** offsite levy areas, as shown in the map below. Areas take into consideration existing/planned infrastructure basins as well as natural and man-made barriers (e.g., rivers, highways, etc.). All offsite levy infrastructure costs are allocated to one or more areas. Of particular note, annexation areas have now been included in Areas 3, 4, and 11.

Offsite Levy Areas



Total net development area, the amount of land available for development across all offsite levy areas, is approximately **1476 net ha**. In calculating net development area only those lands remaining to be developed (at Dec 31, 2016) that have not previously paid offsite levies have been considered (as required by legislation/regulation). Further, allowances have been made to net development area calculations for environmental reserves, municipal reserves, and arterial road right of way.

Offsite Levy Net Development Area

Area Ref. #	Development Area Location	Land Use	Gross Area (ha.)	Environmental Reserves (ha.)	Sub-total	Municipal Reserves	Arterial Right of Way	Net Development Area (ha.)
1.1	See Map	Commercial	0.53	-	0.53	0.05	-	0.48
1.3	See Map	Residential - Low/Medium Density	117.67	23.65	94.02	9.40	-	84.62
1.4	See Map	Residential - High Density	1.22	-	1.22	0.12	-	1.10
2.3	See Map	Residential - Low/Medium Density	47.99	0.93	47.06	4.71	2.40	39.95
2.4	See Map	Residential - High Density	3.85	-	3.85	0.39	-	3.47
3.1	See Map	Commercial	98.53	4.37	94.16	9.42	-	84.74
3.3	See Map	Residential - Low/Medium Density	114.07	4.37	109.70	10.97	-	98.73
3.4	See Map	Residential - High Density	6.91	-	6.91	0.69	-	6.22
3.5	See Map	Other	200.04	-	200.04	20.00	-	180.04
4.2	See Map	Industrial	248.00	-	248.00	24.80	3.20	220.00
4.3	See Map	Residential - Low/Medium Density	11.31	-	11.31	1.13	-	10.18
4.5	See Map	Other	75.20	-	75.20	7.52	-	67.68
5.3	See Map	Residential - Low/Medium Density	54.06	1.19	52.87	5.29	-	47.58
5.4	See Map	Residential - High Density	2.71	-	2.71	0.27	-	2.44
6.3	See Map	Residential - Low/Medium Density	26.70	-	26.70	2.67	-	24.03
6.4	See Map	Residential - High Density	2.13	-	2.13	0.21	-	1.92
7.5	See Map	Other	-	-	-	-	-	-
8.1	See Map	Commercial	4.52	-	4.52	0.45	-	4.07
8.3	See Map	Residential - Low/Medium Density	1.36	-	1.36	-	-	1.36
9.1	See Map	Commercial	22.40	-	22.40	2.24	-	20.16
9.3	See Map	Residential - Low/Medium Density	11.67	-	11.67	1.17	-	10.50
9.4	See Map	Residential - High Density	1.57	-	1.57	0.16	-	1.41
10.1	See Map	Commercial	1.73	-	1.73	0.17	-	1.56
10.3	See Map	Residential - Low/Medium Density	253.50	9.19	244.31	24.43	1.35	218.53
10.4	See Map	Residential - High Density	10.65	-	10.65	1.07	-	9.59
11.1	See Map	Commercial	26.60	-	26.60	2.66	-	23.94
11.3	See Map	Residential - Low/Medium Density	106.32	12.00	94.32	9.43	9.37	75.52
11.5	See Map	Other	262.94	-	262.94	26.29	-	236.65
Total			1,714.17	55.70	1,658.48	165.71	16.32	1,476.45

Summary of Offsite Levy Net Development Area

Description	ha.
Gross Development Area	1,714.17
Less Environment Reserve	55.70
Less Municipal Reserve	165.71
Less ROW Allowance	16.32
Net Development Area	1,476.45

*Note: 1 Hectare (ha.) = ~2.47 Acres

Net development area definitions will be applied in determining offsite levy obligations of developers on application for subdivision or development within the City of Spruce Grove. Net development area is defined as follows:

- Gross Area – The area of lands to be developed in hectares that have not previously paid an offsite levy.
 - Less: Any environmental reserves contained within the development area.
 - Less: A 10% allowance for Municipal Reserves.
 - Less: Arterial road right of way that bisects the development lands.
- Equals: Net Developable Area, which is the area subject to offsite levies.

A2. Development Staging

A rate planning period of 25-years underpins the offsite levy model and rate calculations. Many municipalities use this planning period as it provides a reasonable timeframe to recoup the costs associated with offsite levy infrastructure construction, and it aligns with the timeframes of many municipal capital planning and construction cycles.

Of the **1476 net ha.** of development area available across all offsite levy development areas, planners estimate that approximately **892 net ha. (60%)** will develop during the next 25-years (the rate planning period) as shown in the tables below.

Summary of Anticipated Development during the 25-year Rate Planning Period

Developed Since Model Created	93.28	6.3%
Developed In Next 25 Years	892.16	60.4%
Developed Beyond 25 Years	491.03	33.3%
Net Development Area	1,476.47	

Anticipated Development During the 25-year Rate Planning Period

Area Ref. #	Area Developed in Next 25 years (Net ha.)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	
1.1	0.48	-	-	-	-	-	-	-	-	-	-	-	-	0.48	-	-	-	-	-	-	-	-	-	-	-	-	
1.3	75.87	4.00	4.00	4.00	-	-	4.00	4.00	4.00	4.00	4.00	4.00	4.00	8.00	8.00	8.00	8.00	3.87	-	-	-	-	-	-	-	-	
1.4	1.10	-	-	-	-	-	-	-	-	-	1.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.3	26.37	2.53	2.53	2.80	2.80	2.80	2.80	0.60	1.90	1.90	1.90	1.90	1.91	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.4	3.47	-	-	1.00	1.00	1.00	0.47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3.1	75.07	4.00	4.00	4.00	4.00	4.00	4.00	4.00	5.60	5.60	5.60	5.60	6.34	4.00	4.00	4.00	4.00	2.33	-	-	-	-	-	-	-	-	
3.3	98.73	-	3.30	3.30	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.60	6.33	-	-	-	-	-	-	-	-	
3.4	6.22	-	1.70	-	-	-	-	-	0.60	0.60	0.60	0.60	0.60	-	-	-	-	-	0.75	0.77	-	-	-	-	-	-	
3.5	10.66	-	-	-	-	-	-	-	-	-	-	-	-	2.10	2.10	2.10	2.10	0.66	1.60	-	-	-	-	-	-	-	
4.2	218.16	11.08	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	8.80	9.60	8.00	7.32	6.16
4.3	2.64	1.00	1.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5.3	35.17	4.30	4.30	4.30	4.30	4.30	4.30	4.58	3.00	1.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5.4	2.44	-	-	2.20	0.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6.3	13.28	2.00	2.00	2.00	2.00	2.00	2.00	1.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6.4	0.92	-	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8.1	4.07	-	4.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
8.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9.1	8.18	2.20	5.30	0.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9.3	9.23	0.91	0.93	0.93	0.93	0.93	0.93	1.28	1.20	1.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
9.4	1.41	-	-	-	-	-	-	1.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10.1	0.08	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
10.3	181.31	10.00	10.00	10.00	10.00	10.00	10.00	9.69	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	5.00	5.00	5.00	4.67	3.95	-	-	
10.4	9.09	0.25	0.25	-	-	-	-	-	1.60	1.60	1.60	1.60	1.28	0.91	-	-	-	-	-	-	-	-	-	-	-	-	
11.1	18.94	2.50	8.00	3.00	0.75	0.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.94	-	-	-	-	
11.3	69.70	4.00	4.00	4.00	4.00	-	-	-	4.00	4.00	4.00	4.00	4.00	-	-	-	-	-	4.00	4.00	4.00	4.00	4.00	3.52	4.00	6.18	
11.5	19.57	-	-	-	-	-	1.75	1.75	1.75	1.77	-	-	-	-	-	-	-	-	-	-	-	-	6.00	6.55	-	-	
	892.14	48.85	65.73	51.01	45.42	41.18	45.65	43.99	48.15	45.86	41.10	41.10	41.54	38.88	37.50	37.50	37.50	29.99	23.15	18.57	17.80	21.74	24.27	22.02	11.32	12.34	

APPENDIX B: WATER OFFSITE INFRASTRUCTURE

B1. Water Offsite Infrastructure Costs

To support future growth, water offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$26.42 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Water Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Campsite Watermain Loop (41-99-17)	\$ 328,202	\$ -	\$ -	\$ 328,202
2	Campgrounds Watermain	\$ 776,587	\$ -	\$ -	\$ 776,587
3	New Growth Water Reservoir (CP_DP186)	\$ 11,683,232	\$ 156,903	\$ -	\$ 11,840,135
4	Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A)	\$ 1,071,905	\$ -	\$ -	\$ 1,071,905
6	Water Main 400mm - Easton	\$ 523,919	\$ -	\$ -	\$ 523,919
7	Water Main 400mm - Ball Diamond & South of Hwy 16A	\$ -	\$ -	\$ 3,960,000	\$ 3,960,000
8	Water Main 400mm - Diamond Ave in South Industrial	\$ -	\$ -	\$ 5,280,000	\$ 5,280,000
9	Pressure Reducing Valves - 13	\$ -	\$ -	\$ 300,000	\$ 300,000
10	Pressure Reducing Valves - 14	\$ -	\$ -	\$ 300,000	\$ 300,000
11	Pressure Reducing Valves - 15	\$ -	\$ -	\$ 180,000	\$ 180,000
12	Pressure Reducing Valves - 10	\$ -	\$ -	\$ 300,000	\$ 300,000
13	Pressure Reducing Valves - 6, 7, 8, 9	\$ -	\$ -	\$ 1,200,000	\$ 1,200,000
14	Pressure Reducing Valves - 11, 12	\$ -	\$ -	\$ 360,000	\$ 360,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old	\$ -	\$ -	\$ -	\$ -
		\$ 14,383,846	\$ 156,903	\$ 11,880,000	\$ 26,420,749

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

***Offsite levy project details, allocations, etc. were determined by City staff and their engineering/consulting advisors.

****Financing interest costs to date are included in the cost of work completed for Project #3.

***** Project numbering may be out of sequence as rows containing deleted projects are hidden.

B2. Water Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$0.00** in special grants and contributions for water offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$26.42 million**.

Special Grants and Contributions for Water Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Campsite Watermain Loop (41-99-17)	\$ 328,202	\$ -	\$ -	\$ 328,202
2	Campgrounds Watermain	\$ 776,587	\$ -	\$ -	\$ 776,587
3	New Growth Water Reservoir (CP_DP186)	\$ 11,840,135	\$ -	\$ -	\$ 11,840,135
4	Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A)	\$ 1,071,905	\$ -	\$ -	\$ 1,071,905
6	Water Main 400mm - Easton	\$ 523,919	\$ -	\$ -	\$ 523,919
7	Water Main 400mm - Ball Diamond & South of Hwy 16A	\$ 3,960,000	\$ -	\$ -	\$ 3,960,000
8	Water Main 400mm - Diamond Ave in South Industrial	\$ 5,280,000	\$ -	\$ -	\$ 5,280,000
9	Pressure Reducing Valves - 13	\$ 300,000	\$ -	\$ -	\$ 300,000
10	Pressure Reducing Valves - 14	\$ 300,000	\$ -	\$ -	\$ 300,000
11	Pressure Reducing Valves - 15	\$ 180,000	\$ -	\$ -	\$ 180,000
12	Pressure Reducing Valves - 10	\$ 300,000	\$ -	\$ -	\$ 300,000
13	Pressure Reducing Valves - 6, 7, 8, 9	\$ 1,200,000	\$ -	\$ -	\$ 1,200,000
14	Pressure Reducing Valves - 11, 12	\$ 360,000	\$ -	\$ -	\$ 360,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old	\$ -	\$ -	\$ -	\$ -
		\$ 26,420,749	\$ -	\$ -	\$ 26,420,749

B3. Water Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Water Infrastructure Staging

Item	Project Description	Construction Start Year
1	Campsite Watermain Loop (41-99-17)	2003
2	Campgrounds Watermain	2012
3	New Growth Water Reservoir (CP_DP186)	2014
4	Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A)	2019
6	Water Main 400mm - Easton	2021
7	Water Main 400mm - Ball Diamond & South of Hwy 16A	2025
8	Water Main 400mm - Diamond Ave in South Industrial	2025
9	Pressure Reducing Valves - 13	2025
10	Pressure Reducing Valves - 14	2025
11	Pressure Reducing Valves - 15	2025
12	Pressure Reducing Valves - 10	2025
13	Pressure Reducing Valves - 6, 7, 8, 9	2022
14	Pressure Reducing Valves - 11, 12	2025

*The share of projects beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

**Costs are inflated to the year of construction using an inflation rate of 5% for the first 2 years, and 3% thereafter.

B4. Water Offsite Infrastructure Benefiting Parties

The water offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. The potential benefiting parties were include:

- City of Spruce Grove – that portion of cost which is required to service existing residents.

- Other Stakeholders - other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (in Rates) – all growth-related infrastructure (i.e., leviable water infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of water offsite levy infrastructure costs to benefiting parties.

Allocation of Water Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Campsite Watermain Loop (41-99-17)	\$ 328,202			0.0%	100.0%
2	Campgrounds Watermain	\$ 776,587			0.0%	100.0%
3	New Growth Water Reservoir (CP_DP186)	\$ 11,840,135			0.0%	100.0%
4	Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A)	\$ 1,071,905			0.0%	100.0%
6	Water Main 400mm - Easton	\$ 523,919			0.0%	100.0%
7	Water Main 400mm - Ball Diamond & South of Hwy 16A	\$ 3,960,000			12.0%	88.0%
8	Water Main 400mm - Diamond Ave in South Industrial	\$ 5,280,000			12.0%	88.0%
9	Pressure Reducing Valves - 13	\$ 300,000			12.0%	88.0%
10	Pressure Reducing Valves - 14	\$ 300,000			12.0%	88.0%
11	Pressure Reducing Valves - 15	\$ 180,000			12.0%	88.0%
12	Pressure Reducing Valves - 10	\$ 300,000			12.0%	88.0%
13	Pressure Reducing Valves - 6, 7, 8, 9	\$ 1,200,000			0.0%	100.0%
14	Pressure Reducing Valves - 11, 12	\$ 360,000			12.0%	88.0%
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old	\$ -				100.0%
		\$ 26,420,749				

*Allocations to future development (vs municipal share etc.) were determined by City staff and their engineering/consulting advisors.

**Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations. For example, a project which is slated to be constructed in year 20 of the 25-year review period will have 20% (5/25) of its costs in rates today, and 80% (20/25) of its costs will sit beyond the 25-year review period.

B5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$25.14 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$12.38 million** (\$11.40 million + \$0.98 million) in offsite levies to date and results in an adjusted offsite levy cost of approximately **\$12.76 million**.

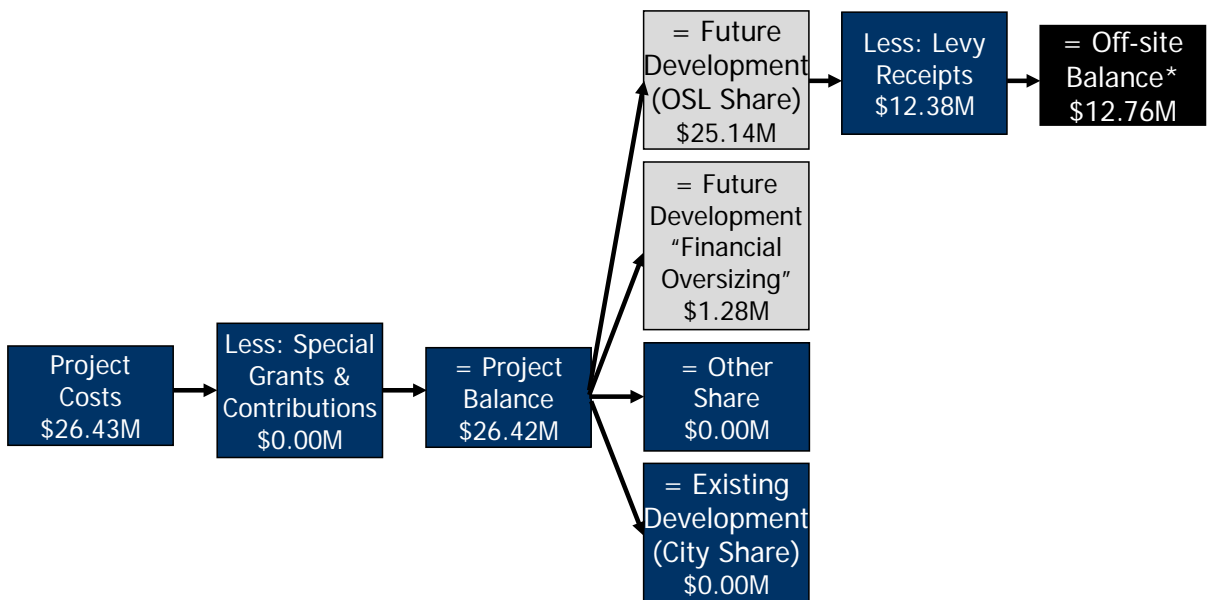
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Campsite Watermain Loop (41-99-17)	\$ 328,202	\$ 328,202	\$ -	\$ -
2	Campgrounds Watermain	\$ 776,587	\$ 776,587	\$ -	\$ -
3	New Growth Water Reservoir (CP_DP186)	\$ 11,840,135	\$ 7,239,634	\$ 633,813	\$ 3,966,689
4	Water Main 400mm - 1200m from Century Rd to Pioneer Rd (along Hwy 16A)	\$ 1,071,905	\$ -	\$ 346,201	\$ 725,704
6	Water Main 400mm - Easton	\$ 523,919	\$ -	\$ -	\$ 523,919
7	Water Main 400mm - Ball Diamond & South of Hwy 16A	\$ 3,484,800	\$ -	\$ -	\$ 3,484,800
8	Water Main 400mm - Diamond Ave in South Industrial	\$ 4,646,400	\$ -	\$ -	\$ 4,646,400
9	Pressure Reducing Valves - 13	\$ 264,000	\$ -	\$ -	\$ 264,000
10	Pressure Reducing Valves - 14	\$ 264,000	\$ -	\$ -	\$ 264,000
11	Pressure Reducing Valves - 15	\$ 158,400	\$ -	\$ -	\$ 158,400
12	Pressure Reducing Valves - 10	\$ 264,000	\$ -	\$ -	\$ 264,000
13	Pressure Reducing Valves - 6, 7, 8, 9	\$ 1,200,000	\$ -	\$ -	\$ 1,200,000
14	Pressure Reducing Valves - 11, 12	\$ 316,800	\$ -	\$ -	\$ 316,800
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old	\$ -	\$ 3,051,844	\$ -	\$ (3,051,844)
		\$ 25,139,149	\$ 11,396,268	\$ 980,014	\$ 12,762,867

B6. Summary of Water Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for water infrastructure that forms the basis of the rate is approximately **\$12.76 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section B4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Water Offsite Levy Costs



B7. Water Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefitting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefitting areas were determined by City staff and their engineering advisors. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to

determine rates.

Benefiting Areas for Water Offsite Infrastructure

Item	Project Description	Developer Cost	1	2	3	4	5	6	7	8	9	10	11
1	Campsite Watermain Loop (41-99-17)	\$ -	1	1	1	1	1						
2	Campgrounds Watermain	\$ -				1			1	1			1
3	New Growth Water Reservoir (CP_DP186)	\$ 3,966,689	1	1	1	1	1	1	1	1	1	1	1
4	Water Main 400mm - 1200m from Century Rd to Pioneer	\$ 725,704								1		1	1
6	Water Main 400mm - Easton	\$ 523,919								1		1	1
7	Water Main 400mm - Ball Diamond & South of Hwy 16A	\$ 3,484,800								1		1	1
8	Water Main 400mm - Diamond Ave in South Industrial	\$ 4,646,400											1
9	Pressure Reducing Valves - 13	\$ 264,000				1			1				1
10	Pressure Reducing Valves - 14	\$ 264,000		1	1								1
11	Pressure Reducing Valves - 15	\$ 158,400					1	1					
12	Pressure Reducing Valves - 10	\$ 264,000									1		
13	Pressure Reducing Valves - 6, 7, 8, 9	\$ 1,200,000						1					
14	Pressure Reducing Valves - 11, 12	\$ 316,800								1		1	1
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & C	\$ (3,051,844)	1	1	1	1	1	1	1	1	1	1	1
		\$ 12,762,867											

B8. Reserve Balance

The balance of the City's water reserve at December 31st, 2021 is **\$(1,983,075)**. This updated balance takes into consideration expenditures up to end-2021 and assumes that front-ending debts will be drawn down via a withdrawal of all available cash in the account.

Water Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2016		\$ 8,344,423.23	\$ (8,344,423.23)
Offsite Levy Receipt Allocations to December 31, 2016	\$ 8,344,423.23		\$ -
Unallocated Receipts & Interest to December 31, 2016	\$ 2,527,298.67		\$ 2,527,298.67
Adjustments made during 2019 update - see updated continuity		\$ 465,926.72	\$ 2,061,371.95
Opening Balance			\$ 2,061,371.95
2017			\$ 2,061,371.95
Interest on Opening Balance	\$ 175,216.62		\$ 2,236,588.57
Project Expenditures (OSL Share)		\$ 3,877,541.84	\$ (1,640,953.27)
Offsite Levy Receipts	\$ 650,685.58		\$ (990,267.69)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (990,267.69)
Debenture Interest Accrued This Year		\$ -	\$ (990,267.69)
Interest on Project Expenditure		\$ 26,270.35	\$ (1,016,538.04)
Interest on Offsite Levy Receipts	\$ 2,765.41		\$ (1,013,772.63)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (1,013,772.63)
Interest on Debenture Expenditure		\$ -	\$ (1,013,772.63)
2018			\$ (1,013,772.63)
Interest on Opening Balance		\$ 27,473.24	\$ (1,041,245.86)
Project Expenditures (OSL Share)		\$ 123,955.19	\$ (1,165,201.05)
Offsite Levy Receipts	\$ 169,280.00		\$ (995,921.05)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (995,921.05)
Debenture Interest Accrued This Year		\$ -	\$ (995,921.05)
Interest on Project Expenditure		\$ 839.80	\$ (996,760.85)
Interest on Offsite Levy Receipts	\$ 719.44		\$ (996,041.41)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (996,041.41)
Interest on Debenture Expenditure		\$ -	\$ (996,041.41)

City of Spruce Grove Offsite Levy Rates Review

2019			\$ (996,041.41)
Interest on Opening Balance		\$ 24,888.58	\$ (1,020,930.00)
Project Expenditures (OSL Share)		\$ 1,465,139.78	\$ (2,486,069.78)
Offsite Levy Receipts	\$ 23,615.59		\$ (2,462,454.19)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ 990,472.52		\$ (1,471,981.67)
Debenture Interest Accrued This Year		\$ -	\$ (1,471,981.67)
Interest on Project Expenditure		\$ 9,157.12	\$ (1,481,138.79)
Interest on Offsite Levy Receipts	\$ 283.39		\$ (1,480,855.40)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ 11,885.67		\$ (1,468,969.73)
Interest on Debenture Expenditure		\$ -	\$ (1,468,969.73)
2020			\$ (1,468,969.73)
Interest on Opening Balance		\$ 36,724.24	\$ (1,505,693.98)
Project Expenditures (OSL Share)		\$ 24,737.09	\$ (1,530,431.07)
Offsite Levy Receipts	\$ 10,771.51		\$ (1,519,659.56)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -	\$ -	\$ (1,519,659.56)
Interest on Project Expenditure		\$ 154.61	\$ (1,519,814.16)
Interest on Offsite Levy Receipts	\$ 43.09		\$ (1,519,771.08)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -	\$ -	\$ (1,519,771.08)
Interest on Debenture Expenditure	\$ -	\$ -	\$ (1,519,771.08)
2021			\$ (1,519,771.08)
Interest on Opening Balance		\$ 37,994.28	\$ (1,557,765.35)
Project Expenditures (OSL Share)		\$ 548,049.00	\$ (2,105,814.35)
Offsite Levy Receipts	\$ 125,661.54		\$ (1,980,152.81)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)			\$ (1,980,152.81)
Interest on Project Expenditure		\$ 3,425.31	\$ (1,983,578.12)
Interest on Offsite Levy Receipts	\$ 502.65		\$ (1,983,075.47)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)			\$ (1,983,075.47)
Interest on Debenture Expenditure			\$ (1,983,075.47)

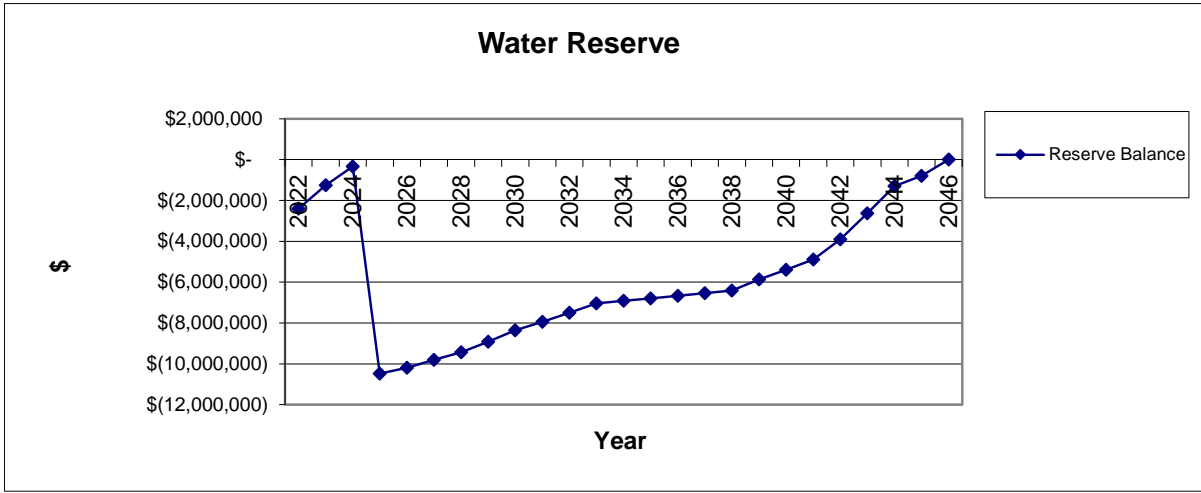
B9. Development and Water Infrastructure Staging Impacts

Water offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of water infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for infrastructure that benefits other parties. The front-ender (be it a municipality or a developer) is reimbursed over time as levies are collected, and in accordance with the municipality's front-ending repayment policies.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.50%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **0.80%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Water Offsite Levy Reserve Balances³



Anticipated Water Offsite Levy Reserve Balances

Year	Receipts	Expenditure	Opening Balance	Interest	Balance
					\$ (1,983,075)
2022	\$ 835,112	\$ 1,200,000	\$ (58,699)	\$ (58,699)	\$ (2,406,662)
2023	\$ 1,426,230	\$ 248,643	\$ (30,727)	\$ (30,727)	\$ (1,259,802)
2024	\$ 933,838	\$ -	\$ (8,149)	\$ (8,149)	\$ (334,114)
2025	\$ 790,794	\$ 10,672,588	\$ (255,398)	\$ (255,398)	\$ (10,471,306)
2026	\$ 534,740	\$ -	\$ (248,414)	\$ (248,414)	\$ (10,184,979)
2027	\$ 626,343	\$ -	\$ (238,966)	\$ (238,966)	\$ (9,797,603)
2028	\$ 590,451	\$ -	\$ (230,179)	\$ (230,179)	\$ (9,437,330)
2029	\$ 743,780	\$ -	\$ (217,339)	\$ (217,339)	\$ (8,910,890)
2030	\$ 759,866	\$ -	\$ (203,776)	\$ (203,776)	\$ (8,354,799)
2031	\$ 606,753	\$ -	\$ (193,701)	\$ (193,701)	\$ (7,941,747)
2032	\$ 624,956	\$ -	\$ (182,920)	\$ (182,920)	\$ (7,499,711)
2033	\$ 637,250	\$ -	\$ (171,562)	\$ (171,562)	\$ (7,034,022)
2034	\$ 294,126	\$ -	\$ (168,497)	\$ (168,497)	\$ (6,908,393)
2035	\$ 278,043	\$ -	\$ (165,759)	\$ (165,759)	\$ (6,796,109)
2036	\$ 286,384	\$ -	\$ (162,743)	\$ (162,743)	\$ (6,672,467)
2037	\$ 294,976	\$ -	\$ (159,437)	\$ (159,437)	\$ (6,536,929)
2038	\$ 288,720	\$ -	\$ (156,205)	\$ (156,205)	\$ (6,404,413)
2039	\$ 682,419	\$ -	\$ (143,050)	\$ (143,050)	\$ (5,865,044)
2040	\$ 605,821	\$ -	\$ (131,481)	\$ (131,481)	\$ (5,390,704)
2041	\$ 621,929	\$ -	\$ (119,219)	\$ (119,219)	\$ (4,887,994)
2042	\$ 1,081,079	\$ -	\$ (95,173)	\$ (95,173)	\$ (3,902,088)
2043	\$ 1,342,137	\$ -	\$ (63,999)	\$ (63,999)	\$ (2,623,950)
2044	\$ 1,359,528	\$ -	\$ (31,611)	\$ (31,611)	\$ (1,296,032)
2045	\$ 515,049	\$ -	\$ (19,525)	\$ (19,525)	\$ (800,508)
2046	\$ 800,508	\$ -	\$ 0	\$ 0	\$ 0

³ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the equivalent \$X rate paid in the future (i.e., it is discounted).

APPENDIX C: SANITARY OFFSITE INFRASTRUCTURE

C1. Sanitary Offsite Infrastructure Costs

To support future growth, sanitary offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$42.10 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Sanitary Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands*	\$ 3,772,950	\$ -	\$ -	\$ 3,772,950
2	Pioneer Road Trunk Sewer (42-99-16-09)	\$ 2,964,966	\$ -	\$ -	\$ 2,964,966
3	Pioneer Road Sanitary Sewer Extension (41-01-01-14)	\$ 1,553,981	\$ -	\$ -	\$ 1,553,981
4	Pioneer Trunk Sewer Extension DP138	\$ 3,983,988	\$ -	\$ -	\$ 3,983,988
5	Campsite West Trunk Sanitary Sewer (42-99-09)	\$ 1,358,031	\$ -	\$ -	\$ 1,358,031
6	Boundary Trunk Sewer	\$ 157,818	\$ -	\$ 5,104,800	\$ 5,262,618
7	Pioneer Trunk Sewer Extension (McLeod to CNR)	\$ -	\$ -	\$ 1,800,000	\$ 1,800,000
8	Spruce Grove Industrial Sanitary Trunk	\$ 456,180	\$ -	\$ -	\$ 456,180
9	Pioneer Trunk Extension -875m of 750mm north Hwy 16A to south of Hwy 16A	\$ -	\$ -	\$ 3,808,800	\$ 3,808,800
10	Pioneer Trunk Extension -851m of 600mm north south of Hwy 16A to boundary	\$ -	\$ -	\$ 2,054,400	\$ 2,054,400
11	Boundary Trunk Extension - north Hwy 16A to south municipal boundary	\$ -	\$ -	\$ 8,680,800	\$ 8,680,800
12	West Trunk Southern Branches - 4 Extensions to municipal boundary	\$ -	\$ -	\$ 6,404,400	\$ 6,404,400
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old Agree	\$ -	\$ -	\$ -	\$ -
		\$ 14,247,913	\$ -	\$ 27,853,200	\$ 42,101,113

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

***Offsite levy project details, allocations, etc. were determined by City staff and their engineering/consulting advisors.

**** Project numbering may be out of sequence as rows containing deleted projects are hidden.

C2. Sanitary Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$1.22 million** in special grants and contributions (\$1.16 million + \$0.06 million) for sanitary offsite levy infrastructure as shown in the table below (note, if the City receives additional grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$40.88 million**.

Special Grants and Contributions for Sanitary Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands*	\$ 3,772,950	\$ -	\$ 8,480	\$ 3,764,470
2	Pioneer Road Trunk Sewer (42-99-16-09)	\$ 2,964,966	\$ 1,163,038	\$ 8,480	\$ 1,793,448
3	Pioneer Road Sanitary Sewer Extension (41-01-01-14)	\$ 1,553,981	\$ -	\$ 8,480	\$ 1,545,501
4	Pioneer Trunk Sewer Extension DP138	\$ 3,983,988	\$ -	\$ 8,480	\$ 3,975,508
5	Campsite West Trunk Sanitary Sewer (42-99-09)	\$ 1,358,031	\$ -	\$ 8,480	\$ 1,349,551
6	Boundary Trunk Sewer	\$ 5,262,618	\$ -	\$ 8,480	\$ 5,254,138
7	Pioneer Trunk Sewer Extension (McLeod to CNR)	\$ 1,800,000	\$ -	\$ 8,480	\$ 1,791,520
8	Spruce Grove Industrial Sanitary Trunk	\$ 456,180	\$ -	\$ -	\$ 456,180
9	Pioneer Trunk Extension -875m of 750mm north Hwy 16A to south of Hwy 16A	\$ 3,808,800	\$ -	\$ -	\$ 3,808,800
10	Pioneer Trunk Extension -851m of 600mm north south of Hwy 16A to boundary	\$ 2,054,400	\$ -	\$ -	\$ 2,054,400
11	Boundary Trunk Extension - north Hwy 16A to south municipal boundary	\$ 8,680,800	\$ -	\$ -	\$ 8,680,800
12	West Trunk Southern Branches - 4 Extensions to municipal boundary	\$ 6,404,400	\$ -	\$ -	\$ 6,404,400
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old Agreement	\$ -	\$ -	\$ -	\$ -
		\$ 42,101,113	\$ 1,163,038	\$ 59,360	\$ 40,878,715

C3. Sanitary Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Sanitary Infrastructure Staging

Item	Project Description	Construction Start Year
1	West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands*	2006
2	Pioneer Road Trunk Sewer (42-99-16-09)	2009
3	Pioneer Road Sanitary Sewer Extension (41-01-01-14)	2012
4	Pioneer Trunk Sewer Extension DP138	2015
5	Campsite West Trunk Sanitary Sewer (42-99-09)	2000
6	Boundary Trunk Sewer	2024
7	Pioneer Trunk Sewer Extension (McLeod to CNR)	2027
8	Spruce Grove Industrial Sanitary Trunk	2007
9	Pioneer Trunk Extension -875m of 750mm north Hwy 16A to south of Hwy 16A	2033
10	Pioneer Trunk Extension -851m of 600mm north south of Hwy 16A to boundary	2037
11	Boundary Trunk Extension - north Hwy 16A to south municipal boundary	2033
12	West Trunk Southern Branches - 4 Extensions to municipal boundary	+2046

*The share of projects beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

**Costs are inflated to the year of construction using an inflation rate of 5% for the first 2 years, and 3% thereafter.

C4. Sanitary Offsite Infrastructure Benefiting Parties

The sanitary offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. The potential benefiting parties were include:

- City of Spruce Grove – that portion of cost which is required to service existing residents.
- Other Stakeholders - other parties (such as neighboring municipalities) that benefit

from the infrastructure.

- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (in Rates) – all growth-related infrastructure (i.e., leviable sanitary infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of sanitary offsite levy infrastructure costs to benefiting parties.

Allocation of Sanitary Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands*	\$ 3,764,470			0.0%	100.0%
2	Pioneer Road Trunk Sewer (42-99-16-09)	\$ 1,793,448			0.0%	100.0%
3	Pioneer Road Sanitary Sewer Extension (41-01-01-14)	\$ 1,545,501			0.0%	100.0%
4	Pioneer Trunk Sewer Extension DP138	\$ 3,975,508			0.0%	100.0%
5	Campsite West Trunk Sanitary Sewer (42-99-09)	\$ 1,349,551			0.0%	100.0%
6	Boundary Trunk Sewer	\$ 5,254,138			8.0%	92.0%
7	Pioneer Trunk Sewer Extension (McLeod to CNR)	\$ 1,791,520			20.0%	80.0%
8	Spruce Grove Industrial Sanitary Trunk	\$ 456,180			0.0%	100.0%
9	Pioneer Trunk Extension -875m of 750mm north Hwy 16A to south of Hwy 16A	\$ 3,808,800			44.0%	56.0%
10	Pioneer Trunk Extension -851m of 600mm north south of Hwy 16A to boundary	\$ 2,054,400			60.0%	40.0%
11	Boundary Trunk Extension - north Hwy 16A to south municipal boundary	\$ 8,680,800			44.0%	56.0%
12	West Trunk Southern Branches - 4 Extensions to municipal boundary	\$ 6,404,400			96.0%	4.0%
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old Agreee	\$ -				100.0%
		\$ 40,878,715				

*Allocations to future development (vs municipal share etc.) were determined by City staff and their engineering/consulting advisors.

**Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations. For example, a project which is slated to be constructed in year 20 of the 25-year review period will have 20% (5/25) of its costs in rates today, and 80% (20/25) of its costs will sit beyond the 25-year review period.

C5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$27.22 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$6.44 million** (\$5.71 million + \$0.73 million) in offsite levies to date, and this results in an adjusted offsite levy cost of approximately **\$20.78 million**.

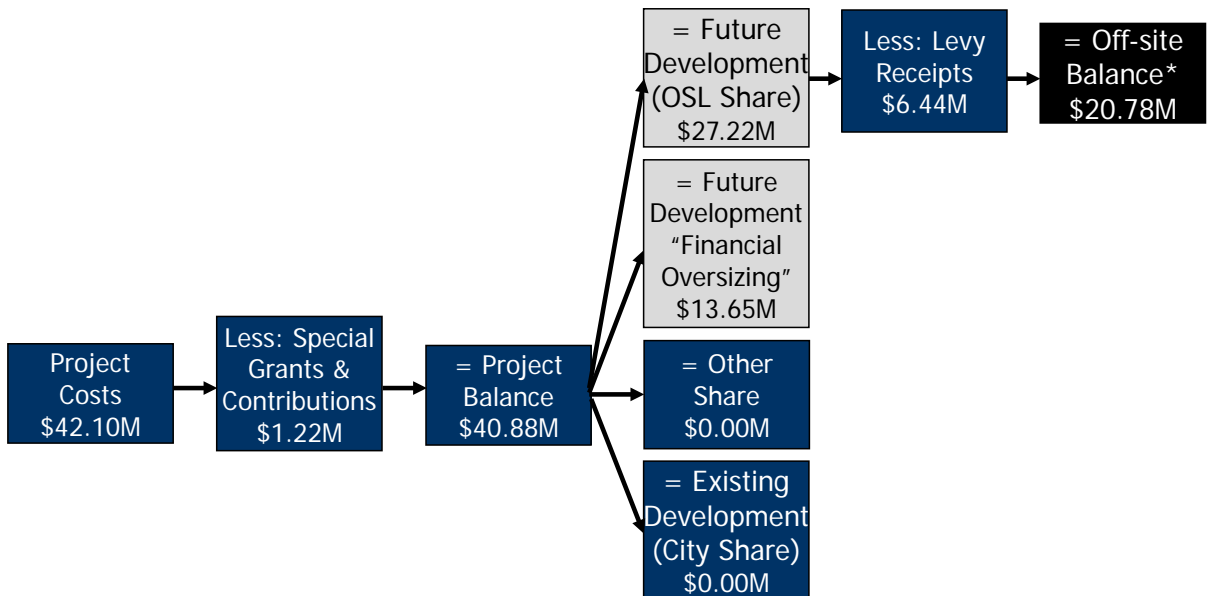
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial Lands*	\$ 3,764,470	\$ 3,246,918	\$ 53,977	\$ 463,575
2	Pioneer Road Trunk Sewer (42-99-16-09)	\$ 1,793,448		\$ 96,897	\$ 1,696,551
3	Pioneer Road Sanitary Sewer Extension (41-01-01-14)	\$ 1,545,501		\$ 83,523	\$ 1,461,977
4	Pioneer Trunk Sewer Extension DP138	\$ 3,975,508		\$ 211,691	\$ 3,763,817
5	Campsite West Trunk Sanitary Sewer (42-99-09)	\$ 1,349,551	\$ 1,358,031	\$ (85)	\$ (8,395)
6	Boundary Trunk Sewer	\$ 4,833,807	\$ 157,818	\$ 206,473	\$ 4,469,516
7	Pioneer Trunk Sewer Extension (McLeod to CNR)	\$ 1,433,216	\$ -	\$ 79,949	\$ 1,353,267
8	Spruce Grove Industrial Sanitary Trunk	\$ 456,180	\$ -	\$ -	\$ 456,180
9	Pioneer Trunk Extension -875m of 750mm north Hwy 16A to south of Hwy 16A	\$ 2,132,928	\$ -	\$ -	\$ 2,132,928
10	Pioneer Trunk Extension -851m of 600mm north south of Hwy 16A to boundary	\$ 821,760	\$ -	\$ -	\$ 821,760
11	Boundary Trunk Extension - north Hwy 16A to south municipal boundary	\$ 4,861,248	\$ -	\$ -	\$ 4,861,248
12	West Trunk Southern Branches - 4 Extensions to municipal boundary	\$ 256,176	\$ -	\$ -	\$ 256,176
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old Agree	\$ -	\$ 947,657	\$ -	\$ (947,657)
		\$ 27,223,792	\$ 5,710,423	\$ 732,425	\$ 20,780,944

C6. Summary of Sanitary Offsite Levy Cost Flow-through

As shown in the figure below, the total costs for sanitary infrastructure that forms the basis of the rate is approximately **\$20.78 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section C4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Sanitary Offsite Levy Costs



C7. Sanitary Infrastructure Benefitting Areas

Net developer costs for each project have been allocated to multiple benefitting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefitting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Sanitary Offsite Infrastructure

Item	Project Description	Developer Cost	1	2	3	4	5	6	7	8	9	10	11
1	West Trunk Sanitary Sewer (42-99-12-06) - W of Campsite Rd to S Industrial	\$ 463,575				1	1						
2	Pioneer Road Trunk Sewer (42-99-16-09)	\$ 1,696,551										1	1
3	Pioneer Road Sanitary Sewer Extension (41-01-01-14)	\$ 1,461,977										1	1
4	Pioneer Trunk Sewer Extension DP138	\$ 3,763,817										1	1
5	Campsite West Trunk Sanitary Sewer (42-99-09)	\$ (8,395)				1							
6	Boundary Trunk Sewer	\$ 4,469,516		1	1								
7	Pioneer Trunk Sewer Extension (McLeod to CNR)	\$ 1,353,267										1	1
8	Spruce Grove Industrial Sanitary Trunk	\$ 456,180				1							
9	Pioneer Trunk Extension -875m of 750mm north Hwy 16A to south of Hwy 16A	\$ 2,132,928										1	1
10	Pioneer Trunk Extension -851m of 600mm north south of Hwy 16A to boundary	\$ 821,760										1	1
11	Boundary Trunk Extension - north Hwy 16A to south municipal boundary	\$ 4,861,248			1								
12	West Trunk Southern Branches - 4 Extensions to municipal boundary	\$ 256,176				1							
100	Unallocated Offsite Levies Collected to Dec 31, 2016 & Contributions From Old Agree	\$ (947,657)	1	1	1	1	1	1	1	1	1	1	1
		\$ 20,780,944											

C8. Reserve Balance

The balance of the City's sanitary reserve at December 31st, 2021 is **\$(7,559,966)**. This updated balance takes into consideration expenditures up to end-2021 and assumes that front-ending debts will be drawn down via a withdrawal of all available cash in the account.

Sanitary Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2016		\$ 11,522,334.96	\$ (11,522,334.96)
Offsite Levy Receipt Allocations to December 31, 2016	\$ 4,762,766.14		\$ (6,759,568.82)
Unallocated Receipts (Adjustments made during 2019 update - see updated continuity)	\$ 465,926.72	\$ -	\$ (6,293,642.10)
			\$ (6,293,642.10)
Opening Balance			\$ (6,293,642.10)
2017			
Interest on Opening Balance		\$ 170,557.70	\$ (6,464,199.80)
Project Expenditures (OSL Share)		\$ 756,872.34	\$ (7,221,072.14)
Offsite Levy Receipts	\$ 278,601.18		\$ (6,942,470.96)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (6,942,470.96)
Debenture Interest Accrued This Year		\$ -	\$ (6,942,470.96)
Interest on Project Expenditure		\$ 5,127.81	\$ (6,947,598.77)
Interest on Offsite Levy Receipts	\$ 11,840.55		\$ (6,935,758.22)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (6,935,758.22)
Interest on Debenture Expenditure		\$ -	\$ (6,935,758.22)
2018			
Interest on Opening Balance		\$ 187,959.05	\$ (7,123,717.27)
Project Expenditures (OSL Share)		\$ 349,487.46	\$ (7,473,204.73)
Offsite Levy Receipts	\$ 35,785.00		\$ (7,437,419.73)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (7,437,419.73)
Debenture Interest Accrued This Year		\$ -	\$ (7,437,419.73)
Interest on Project Expenditure		\$ 2,367.78	\$ (7,439,787.51)
Interest on Offsite Levy Receipts	\$ 1,520.86		\$ (7,438,266.64)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (7,438,266.64)
Interest on Debenture Expenditure		\$ -	\$ (7,438,266.64)

City of Spruce Grove Offsite Levy Rates Review

2019			\$ (7,438,266.64)
Interest on Opening Balance		\$ 185,863.69	\$ (7,624,130.33)
Project Expenditures (OSL Share)		\$ 456,180.08	\$ (8,080,310.41)
Offsite Levy Receipts	\$ -		\$ (8,080,310.41)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ 481,730.30		\$ (7,598,580.11)
Debenture Interest Accrued This Year		\$ -	\$ (7,598,580.11)
Interest on Project Expenditure		\$ 2,851.13	\$ (7,601,431.24)
Interest on Offsite Levy Receipts	\$ -		\$ (7,601,431.24)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ 5,780.76		\$ (7,595,650.47)
Interest on Debenture Expenditure		\$ -	\$ (7,595,650.47)
2020			\$ (7,595,650.47)
Interest on Opening Balance		\$ 189,891.26	\$ (7,785,541.74)
Project Expenditures (OSL Share)		\$ -	\$ (7,785,541.74)
Offsite Levy Receipts	\$ 20,086.86		\$ (7,765,454.88)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)			\$ (7,765,454.88)
Debenture Interest Accrued This Year			\$ (7,765,454.88)
Interest on Project Expenditure			\$ (7,765,454.88)
Interest on Offsite Levy Receipts	\$ 80.35		\$ (7,765,374.53)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)			\$ (7,765,374.53)
Interest on Debenture Expenditure			\$ (7,765,374.53)
2021			\$ (7,765,374.53)
Interest on Opening Balance		\$ 194,134.36	\$ (7,959,508.89)
Project Expenditures (OSL Share)		\$ -	\$ (7,959,508.89)
Offsite Levy Receipts	\$ 397,951.53		\$ (7,561,557.36)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)			\$ (7,561,557.36)
Debenture Interest Accrued This Year			\$ (7,561,557.36)
Interest on Project Expenditure			\$ (7,561,557.36)
Interest on Offsite Levy Receipts	\$ 1,591.81		\$ (7,559,965.55)
Interest on Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)			\$ (7,559,965.55)
Interest on Debenture Expenditure			\$ (7,559,965.55)

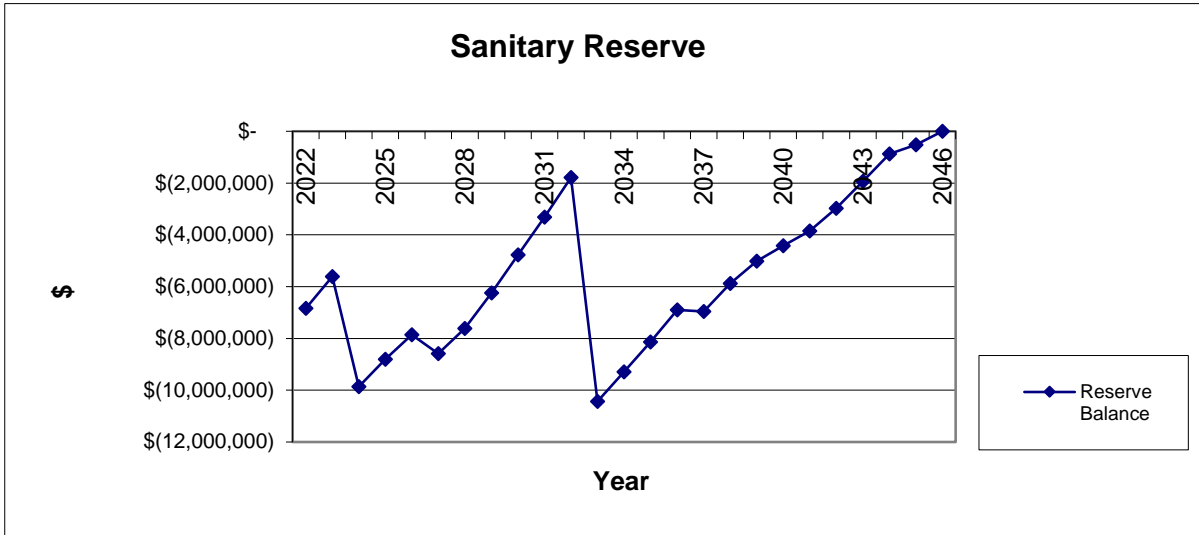
C9. Development and Sanitary Infrastructure Staging Impacts

Sanitary offsite infrastructure will be constructed in staged fashion over the 25-year development period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of sanitary infrastructure from time to time—front ending of infrastructure will be required. A front-end is the party that constructs and pays up front for infrastructure that benefits other parties. The front-end (be it a municipality or a developer) is reimbursed over time as levies are collected, and in accordance with the municipality's front-ending repayment policies.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.50%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **0.80%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Sanitary Offsite Levy Reserve Balances⁴



Anticipated Sanitary Offsite Levy Reserve Balances

Year	Receipts	Expenditure	Opening Balance		Balance
			Interest	\$ (7,559,966)	
2022	\$ 887,794	\$ -	\$ (166,804)	\$ (6,838,975)	
2023	\$ 1,365,583	\$ -	\$ (136,835)	\$ (5,610,227)	
2024	\$ 1,161,732	\$ 5,169,394	\$ (240,447)	\$ (9,858,336)	
2025	\$ 1,268,705	\$ -	\$ (214,741)	\$ (8,804,372)	
2026	\$ 1,136,583	\$ -	\$ (191,695)	\$ (7,859,484)	
2027	\$ 1,202,141	\$ 1,726,640	\$ (209,600)	\$ (8,593,583)	
2028	\$ 1,161,326	\$ -	\$ (185,806)	\$ (7,618,064)	
2029	\$ 1,532,975	\$ -	\$ (152,127)	\$ (6,237,216)	
2030	\$ 1,578,765	\$ -	\$ (116,461)	\$ (4,774,913)	
2031	\$ 1,537,162	\$ -	\$ (80,944)	\$ (3,318,694)	
2032	\$ 1,583,277	\$ -	\$ (43,385)	\$ (1,778,803)	
2033	\$ 1,662,008	\$ 10,061,209	\$ (254,450)	\$ (10,432,453)	
2034	\$ 1,366,610	\$ -	\$ (226,646)	\$ (9,292,489)	
2035	\$ 1,357,430	\$ -	\$ (198,376)	\$ (8,133,436)	
2036	\$ 1,398,152	\$ -	\$ (168,382)	\$ (6,903,666)	
2037	\$ 1,440,097	\$ 1,330,477	\$ (169,851)	\$ (6,963,898)	
2038	\$ 1,232,755	\$ -	\$ (143,279)	\$ (5,874,421)	
2039	\$ 986,899	\$ -	\$ (122,188)	\$ (5,009,710)	
2040	\$ 699,658	\$ -	\$ (107,751)	\$ (4,417,803)	
2041	\$ 658,360	\$ -	\$ (93,986)	\$ (3,853,429)	
2042	\$ 946,787	\$ -	\$ (72,666)	\$ (2,979,309)	
2043	\$ 1,102,449	\$ -	\$ (46,921)	\$ (1,923,781)	
2044	\$ 1,076,152	\$ -	\$ (21,191)	\$ (868,820)	
2045	\$ 356,582	\$ -	\$ (12,806)	\$ (525,044)	
2046	\$ 525,044	\$ -	\$ (0)	\$ (0)	

⁴ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the equivalent \$X rate paid in the future (i.e., it is discounted).

APPENDIX D: TRANSPORTATION OFFSITE INFRASTRUCTURE

D1. Transportation Offsite Infrastructure Costs

To support future growth, transportation offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$125.48 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Transportation Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Campsite Road Twinning	\$ 137,529	\$ -	\$ -	\$ 137,529
2	Grove Drive - Century Road to Greystone	\$ 56,771	\$ -	\$ -	\$ 56,771
3	Traffic Signals - Campsite Road and McLeod Ave	\$ 203,441	\$ -	\$ -	\$ 203,441
4	Traffic Signals - Campsite Road and Grove Drive	\$ 104,864	\$ -	\$ -	\$ 104,864
5	Grove Drive Twinning/Widening - Campsite to Century	\$ 5,828,599	\$ -	\$ -	\$ 5,828,599
6	TLC Signalization	\$ 262,197	\$ -	\$ -	\$ 262,197
7	Century Road Widening/Landscaping	\$ 1,872,896	\$ -	\$ -	\$ 1,872,896
8	Grove Drive East/West	\$ 3,130,734	\$ -	\$ -	\$ 3,130,734
9	Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection	\$ 200,970	\$ -	\$ -	\$ 200,970
10	Century Road South of Diamond Ave.	\$ 1,474,213	\$ -	\$ -	\$ 1,474,213
11	Traffic Signals - Highway 16A/Century Crossing	\$ 376,862	\$ -	\$ -	\$ 376,862
12	Century Road/ Grove Drive Intersection	\$ 1,546,798	\$ -	\$ -	\$ 1,546,798
13	Grove Drive East Extension	\$ 1,650,186	\$ -	\$ -	\$ 1,650,186
14	Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest	\$ 370,210	\$ -	\$ -	\$ 370,210
15	Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and South Industrial Arterial - Tamarack Drive	\$ 11,135,324	\$ 1,184,155	\$ -	\$ 12,319,479
16	Traffic Signals - Grove Drive and Deer Park	\$ 760,710	\$ -	\$ -	\$ 760,710
17	Traffic Signals - Grove Drive and Deer Park	\$ 261,976	\$ -	\$ -	\$ 261,976
18	Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the	\$ 2,483,505	\$ 263,937	\$ -	\$ 2,747,442
19	Tamarack Drive 2LAUD - 200m from Golden Spike Rd east	\$ -	\$ -	\$ 732,000	\$ 732,000
20	Tamarack Drive 2LAUD - 1400m from existing to Century Rd	\$ -	\$ -	\$ 5,124,000	\$ 5,124,000
21	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd	\$ 1,117,706	\$ 121,919	\$ 4,560,294	\$ 5,799,919
22	Tamarack Drive 2LAUD - 90m from Golden Spike Rd west	\$ -	\$ -	\$ 329,400	\$ 329,400
23	Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd	\$ -	\$ -	\$ 5,490,000	\$ 5,490,000
24	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd	\$ -	\$ -	\$ 5,856,000	\$ 5,856,000
25	Pioneer Road 2LAUD - 400m south of Hwy 16A	\$ -	\$ -	\$ 1,464,000	\$ 1,464,000
26	Pioneer Road 4LAUD - 400m south of Hwy 16A	\$ -	\$ -	\$ 1,464,000	\$ 1,464,000
27	Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr	\$ -	\$ -	\$ 5,124,000	\$ 5,124,000
28	Century Road 2LAUD - 2400m Hwy 16A to south boundary	\$ -	\$ -	\$ 4,485,000	\$ 4,485,000
29	Century Road 4LAUD - 2400m Hwy 16A to south boundary	\$ -	\$ -	\$ 8,784,000	\$ 8,784,000
30	Grove Drive East 4LAUD - 1000m to Pioneer Rd	\$ -	\$ -	\$ 3,120,000	\$ 3,120,000
31	Grove Drive West 2LAUD - 600m to Boundary Rd	\$ 2,149,514	\$ 228,620	\$ -	\$ 2,378,134
32	Grove Drive West 4LAUD - 1400m to Boundary Rd	\$ 279,117	\$ -	\$ 2,210,000	\$ 2,489,117
33	Campsite Road 2LAUD - 1300m from CN to south boundary	\$ -	\$ -	\$ 4,758,000	\$ 4,758,000
34	Campsite Road 4LAUD - 1300m from CN to south boundary	\$ -	\$ -	\$ 3,900,000	\$ 3,900,000
35	Golden Spike Road 2LAUD - 1400m to south boundary	\$ -	\$ -	\$ 4,400,000	\$ 4,400,000
36	Golden Spike Road 4LAUD - 1400m to south boundary	\$ -	\$ -	\$ 5,124,000	\$ 5,124,000
37	Boundary Road 2LAUD - 1200m to Hwy16A	\$ 19,229	\$ 2,097	\$ 10,895,570	\$ 10,916,896
38	Traffic Signals - Boundary @ McLeod	\$ -	\$ -	\$ 360,000	\$ 360,000
39	Traffic Signals - Hwy 16A - between Boundary & Campsite	\$ -	\$ -	\$ 360,000	\$ 360,000
40	Traffic Signals - Campsite - between Grove Dr & Hwy 16	\$ 240,534	\$ 26,237	\$ -	\$ 266,771
41	Traffic Signals - Campsite @ Diamond	\$ -	\$ -	\$ 360,000	\$ 360,000
42	Traffic Signals - Campsite @ Tamarack	\$ -	\$ -	\$ 360,000	\$ 360,000
43	Traffic Signals - Golden Spike @ Diamond	\$ -	\$ -	\$ 360,000	\$ 360,000
44	Traffic Signals - Golden Spike @ Tamarack	\$ -	\$ -	\$ 360,000	\$ 360,000
45	Traffic Signals - Century @ Diamond	\$ -	\$ -	\$ 360,000	\$ 360,000
46	Traffic Signals - Century @ Tamarack	\$ -	\$ -	\$ 360,000	\$ 360,000
47	Traffic Signals - Grove Dr @ Greenbury Blvd	\$ -	\$ -	\$ 360,000	\$ 360,000
48	Arterial Toplift Asphalt	\$ 708,321	\$ 77,263	\$ -	\$ 785,584
49	Pioneer Road Top Lift Asphalt	\$ -	\$ -	\$ 1,602,000	\$ 1,602,000
50	Campsite Road Functional Plan	\$ -	\$ -	\$ 240,000	\$ 240,000
51	Century Road 2LAUD - Century Close to south boundary	\$ -	\$ -	\$ 4,299,000	\$ 4,299,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 36,372,205	\$ 1,904,229	\$ 87,201,264	\$ 125,477,698

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

***Offsite levy project details, allocations, etc. were determined by City staff and their engineering/consulting advisors.

**** Project numbering may be out of sequence as rows containing deleted projects are hidden.

D2. Transportation Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$0.15 million** in special grants and contributions for transportation offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$125.33 million**.

Special Grants and Contributions for Transportation Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Campsite Road Twinning	\$ 137,529	\$ -	\$ -	\$ 137,529
2	Grove Drive - Century Road to Greystone	\$ 56,771	\$ -	\$ -	\$ 56,771
3	Traffic Signals - Campsite Road and McLeod Ave	\$ 203,441	\$ -	\$ -	\$ 203,441
4	Traffic Signals - Campsite Road and Grove Drive	\$ 104,864	\$ -	\$ -	\$ 104,864
5	Grove Drive Twinning/Widening - Campsite to Century	\$ 5,828,599	\$ -	\$ -	\$ 5,828,599
6	TLC Signalization	\$ 262,197	\$ -	\$ -	\$ 262,197
7	Century Road Widening/Landscaping	\$ 1,872,896	\$ -	\$ -	\$ 1,872,896
8	Grove Drive East/West	\$ 3,130,734	\$ -	\$ -	\$ 3,130,734
9	Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection	\$ 200,970	\$ -	\$ -	\$ 200,970
10	Century Road South of Diamond Ave.	\$ 1,474,213	\$ 151,961	\$ -	\$ 1,322,252
11	Traffic Signals - Highway 16A/Century Crossing	\$ 376,862	\$ -	\$ -	\$ 376,862
12	Century Road/ Grove Drive Intersection	\$ 1,546,798	\$ -	\$ -	\$ 1,546,798
13	Grove Drive East Extension	\$ 1,650,186	\$ -	\$ -	\$ 1,650,186
14	Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest	\$ 370,210	\$ -	\$ -	\$ 370,210
15	Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and	\$ 12,319,479	\$ -	\$ -	\$ 12,319,479
16	South Industrial Arterial - Tamarack Drive	\$ 760,710	\$ -	\$ -	\$ 760,710
17	Traffic Signals - Grove Drive and Deer Park	\$ 261,976	\$ -	\$ -	\$ 261,976
18	Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the	\$ 2,747,442	\$ -	\$ -	\$ 2,747,442
19	Tamarack Drive 2LAUD - 200m from Golden Spike Rd east	\$ 732,000	\$ -	\$ -	\$ 732,000
20	Tamarack Drive 2LAUD - 1400m from existing to Century Rd	\$ 5,124,000	\$ -	\$ -	\$ 5,124,000
21	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd	\$ 5,799,919	\$ -	\$ -	\$ 5,799,919
22	Tamarack Drive 2LAUD - 90m from Golden Spike Rd west	\$ 329,400	\$ -	\$ -	\$ 329,400
23	Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd	\$ 5,490,000	\$ -	\$ -	\$ 5,490,000
24	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd	\$ 5,856,000	\$ -	\$ -	\$ 5,856,000
25	Pioneer Road 2LAUD - 400m south of Hwy 16A	\$ 1,464,000	\$ -	\$ -	\$ 1,464,000
26	Pioneer Road 4LAUD - 400m south of Hwy 16A	\$ 1,464,000	\$ -	\$ -	\$ 1,464,000
27	Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr	\$ 5,124,000	\$ -	\$ -	\$ 5,124,000
28	Century Road 2LAUD - 2400m Hwy 16A to south boundary	\$ 4,485,000	\$ -	\$ -	\$ 4,485,000
29	Century Road 4LAUD - 2400m Hwy 16A to south boundary	\$ 8,784,000	\$ -	\$ -	\$ 8,784,000
30	Grove Drive East 4LAUD - 1000m to Pioneer Rd	\$ 3,120,000	\$ -	\$ -	\$ 3,120,000
31	Grove Drive West 2LAUD - 600m to Boundary Rd	\$ 2,378,134	\$ -	\$ -	\$ 2,378,134
32	Grove Drive West 4LAUD - 1400m to Boundary Rd	\$ 2,489,117	\$ -	\$ -	\$ 2,489,117
33	Campsite Road 2LAUD - 1300m from CN to south boundary	\$ 4,758,000	\$ -	\$ -	\$ 4,758,000
34	Campsite Road 4LAUD - 1300m from CN to south boundary	\$ 3,900,000	\$ -	\$ -	\$ 3,900,000
35	Golden Spike Road 2LAUD - 1400m to south boundary	\$ 4,400,000	\$ -	\$ -	\$ 4,400,000
36	Golden Spike Road 4LAUD - 1400m to south boundary	\$ 5,124,000	\$ -	\$ -	\$ 5,124,000
37	Boundary Road 2LAUD - 1200m to Hwy16A	\$ 10,916,896	\$ -	\$ -	\$ 10,916,896
38	Traffic Signals - Boundary @ McLeod	\$ 360,000	\$ -	\$ -	\$ 360,000
39	Traffic Signals - Hwy 16A - between Boundary & Campsite	\$ 360,000	\$ -	\$ -	\$ 360,000
40	Traffic Signals - Campsite - between Grove Dr & Hwy 16	\$ 266,771	\$ -	\$ -	\$ 266,771
41	Traffic Signals - Campsite @ Diamond	\$ 360,000	\$ -	\$ -	\$ 360,000
42	Traffic Signals - Campsite @ Tamarack	\$ 360,000	\$ -	\$ -	\$ 360,000
43	Traffic Signals - Golden Spike @ Diamond	\$ 360,000	\$ -	\$ -	\$ 360,000
44	Traffic Signals - Golden Spike @ Tamarack	\$ 360,000	\$ -	\$ -	\$ 360,000
45	Traffic Signals - Century @ Diamond	\$ 360,000	\$ -	\$ -	\$ 360,000
46	Traffic Signals - Century @ Tamarack	\$ 360,000	\$ -	\$ -	\$ 360,000
47	Traffic Signals - Grove Dr @ Greenbury Blvd	\$ 360,000	\$ -	\$ -	\$ 360,000
48	Arterial Toplift Asphalt	\$ 785,584	\$ -	\$ -	\$ 785,584
49	Pioneer Road Top Lift Asphalt	\$ 1,602,000	\$ -	\$ -	\$ 1,602,000
50	Campsite Road Functional Plan	\$ 240,000	\$ -	\$ -	\$ 240,000
51	Century Road 2LAUD - Century Close to south boundary	\$ 4,299,000	\$ -	\$ -	\$ 4,299,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 125,477,698	\$ 151,961	\$ -	\$ 125,325,737

D3. Transportation Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Transportation Infrastructure Staging

Item	Project Description	Construction Start Year
1	Campsite Road Twinning	2006
2	Grove Drive - Century Road to Greystone	2006
3	Traffic Signals - Campsite Road and McLeod Ave	2006
4	Traffic Signals - Campsite Road and Grove Drive	2006
5	Grove Drive Twinning/Widening - Campsite to Century	2006
6	TLC Signalization	2008
7	Century Road Widening/Landscaping	2009
8	Grove Drive East/West	2009
9	Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection	2010
10	Century Road South of Diamond Ave.	2011
11	Traffic Signals - Highway 16A/Century Crossing	2011
12	Century Road/ Grove Drive Intersection	2013
13	Grove Drive East Extension	2013
14	Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest	2013
15	Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and	2016
16	South Industrial Arterial - Tamarack Drive	2015
17	Traffic Signals - Grove Drive and Deer Park	2015
18	Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the	2015
19	Tamarack Drive 2LAUD - 200m from Golden Spike Rd east	2030
20	Tamarack Drive 2LAUD - 1400m from existing to Century Rd	2030
21	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd	2042
22	Tamarack Drive 2LAUD - 90m from Golden Spike Rd west	2026
23	Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd	2026
24	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd	2036
25	Pioneer Road 2LAUD - 400m south of Hwy 16A	2040
26	Pioneer Road 4LAUD - 400m south of Hwy 16A	2044
27	Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr	2032
28	Century Road 2LAUD - 2400m Hwy 16A to south boundary	2030
29	Century Road 4LAUD - 2400m Hwy 16A to south boundary	2042
30	Grove Drive East 4LAUD - 1000m to Pioneer Rd	2026
31	Grove Drive West 2LAUD - 600m to Boundary Rd	2019
32	Grove Drive West 4LAUD - 1400m to Boundary Rd	2025
33	Campsite Road 2LAUD - 1300m from CN to south boundary	2033
34	Campsite Road 4LAUD - 1300m from CN to south boundary	2044
35	Golden Spike Road 2LAUD - 1400m to south boundary	2028
36	Golden Spike Road 4LAUD - 1400m to south boundary	2040
37	Boundary Road 2LAUD - 1200m to Hwy16A	2025
38	Traffic Signals - Boundary @ McLeod	2042
39	Traffic Signals - Hwy 16A - between Boundary & Campsite	2022
40	Traffic Signals - Campsite - between Grove Dr & Hwy 16	2019
41	Traffic Signals - Campsite @ Diamond	2031
42	Traffic Signals - Campsite @ Tamarack	2032
43	Traffic Signals - Golden Spike @ Diamond	2025
44	Traffic Signals - Golden Spike @ Tamarack	2031
45	Traffic Signals - Century @ Diamond	2026
46	Traffic Signals - Century @ Tamarack	2043
47	Traffic Signals - Grove Dr @ Greenbury Blvd	2033
48	Arterial Toplift Asphalt	2019
49	Pioneer Road Top Lift Asphalt	2023
50	Campsite Road Functional Plan	2027
51	Century Road 2LAUD - Century Close to south boundary	2030

*The share of projects beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

**Costs are inflated to the year of construction using an inflation rate of 5% for the first 2 years, and 3% thereafter.

D4. Transportation Offsite Infrastructure Benefiting Parties

The transportation offsite infrastructure previously outlined will benefit various parties to

varying degrees as determined by the City’s staff and engineering advisors. The potential benefiting parties were include:

- City of Spruce Grove – that portion of cost which is required to service existing residents.
- Other Stakeholders - other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (in Rates) – all growth-related infrastructure (i.e., leviable transportation infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of transportation offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Transportation Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Campsite Road Twinning	\$ 137,529			0.0%	100.0%
2	Grove Drive - Century Road to Greystone	\$ 56,771			0.0%	100.0%
3	Traffic Signals - Campsite Road and McLeod Ave	\$ 203,441			0.0%	100.0%
4	Traffic Signals - Campsite Road and Grove Drive	\$ 104,864			0.0%	100.0%
5	Grove Drive Twinning/Widening - Campsite to Century	\$ 5,828,599			0.0%	100.0%
6	TLC Signalization	\$ 262,197			0.0%	100.0%
7	Century Road Widening/Landscaping	\$ 1,872,896			0.0%	100.0%
8	Grove Drive East/West	\$ 3,130,734			0.0%	100.0%
9	Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection	\$ 200,970			0.0%	100.0%
10	Century Road South of Diamond Ave.	\$ 1,322,252			0.0%	100.0%
11	Traffic Signals - Highway 16A/Century Crossing	\$ 376,862			0.0%	100.0%
12	Century Road/ Grove Drive Intersection	\$ 1,546,798			0.0%	100.0%
13	Grove Drive East Extension	\$ 1,650,186			0.0%	100.0%
14	Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest	\$ 370,210			0.0%	100.0%
15	Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and	\$ 12,319,479			0.0%	100.0%
16	South Industrial Arterial - Tamarack Drive	\$ 760,710			0.0%	100.0%
17	Traffic Signals - Grove Drive and Deer Park	\$ 261,976			0.0%	100.0%
18	Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the	\$ 2,747,442			0.0%	100.0%
19	Tamarack Drive 2LAUD - 200m from Golden Spike Rd east	\$ 732,000			32.0%	68.0%
20	Tamarack Drive 2LAUD - 1400m from existing to Century Rd	\$ 5,124,000			32.0%	68.0%
21	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd	\$ 5,799,919			80.0%	20.0%
22	Tamarack Drive 2LAUD - 90m from Golden Spike Rd west	\$ 329,400			16.0%	84.0%
23	Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd	\$ 5,490,000			16.0%	84.0%
24	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd	\$ 5,856,000			56.0%	44.0%
25	Pioneer Road 2LAUD - 400m south of Hwy 16A	\$ 1,464,000			72.0%	28.0%
26	Pioneer Road 4LAUD - 400m south of Hwy 16A	\$ 1,464,000			88.0%	12.0%
27	Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr	\$ 5,124,000			40.0%	60.0%
28	Century Road 2LAUD - 2400m Hwy 16A to south boundary	\$ 4,485,000			32.0%	68.0%
29	Century Road 4LAUD - 2400m Hwy 16A to south boundary	\$ 8,784,000			80.0%	20.0%
30	Grove Drive East 4LAUD - 1000m to Pioneer Rd	\$ 3,120,000			16.0%	84.0%
31	Grove Drive West 2LAUD - 600m to Boundary Rd	\$ 2,378,134			0.0%	100.0%
32	Grove Drive West 4LAUD - 1400m to Boundary Rd	\$ 2,489,117			12.0%	88.0%
33	Campsite Road 2LAUD - 1300m from CN to south boundary	\$ 4,758,000			44.0%	56.0%
34	Campsite Road 4LAUD - 1300m from CN to south boundary	\$ 3,900,000			88.0%	12.0%
35	Golden Spike Road 2LAUD - 1400m to south boundary	\$ 4,400,000			24.0%	76.0%
36	Golden Spike Road 4LAUD - 1400m to south boundary	\$ 5,124,000			72.0%	28.0%
37	Boundary Road 2LAUD - 1200m to Hwy16A	\$ 10,916,896			12.0%	88.0%
38	Traffic Signals - Boundary @ McLeod	\$ 360,000			80.0%	20.0%
39	Traffic Signals - Hwy 16A - between Boundary & Campsite	\$ 360,000			0.0%	100.0%
40	Traffic Signals - Campsite - between Grove Dr & Hwy 16	\$ 266,771			0.0%	100.0%
41	Traffic Signals - Campsite @ Diamond	\$ 360,000			36.0%	64.0%
42	Traffic Signals - Campsite @ Tamarack	\$ 360,000			40.0%	60.0%
43	Traffic Signals - Golden Spike @ Diamond	\$ 360,000			12.0%	88.0%
44	Traffic Signals - Golden Spike @ Tamarack	\$ 360,000			36.0%	64.0%
45	Traffic Signals - Century @ Diamond	\$ 360,000			16.0%	84.0%
46	Traffic Signals - Century @ Tamarack	\$ 360,000			84.0%	16.0%
47	Traffic Signals - Grove Dr @ Greenbury Blvd	\$ 360,000			44.0%	56.0%
48	Arterial Toplift Asphalt	\$ 785,584			0.0%	100.0%
49	Pioneer Road Top Lift Asphalt	\$ 1,602,000			4.0%	96.0%
50	Campsite Road Functional Plan	\$ 240,000			20.0%	80.0%
51	Century Road 2LAUD - Century Close to south boundary	\$ 4,299,000			32.0%	68.0%
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -				100.0%
		\$ 125,325,737				

*Allocations to future development (vs municipal share etc.) were determined by City staff and their

engineering/consulting advisors.

**Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations. For example, a project which is slated to be constructed in year 20 of the 25-year review period will have 20% (5/25) of its costs in rates today, and 80% (20/25) of its costs will sit beyond the 25-year review period.

D5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$86.63 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$24.48 million** (\$19.45 million + \$5.03 million) in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$62.14 million**.

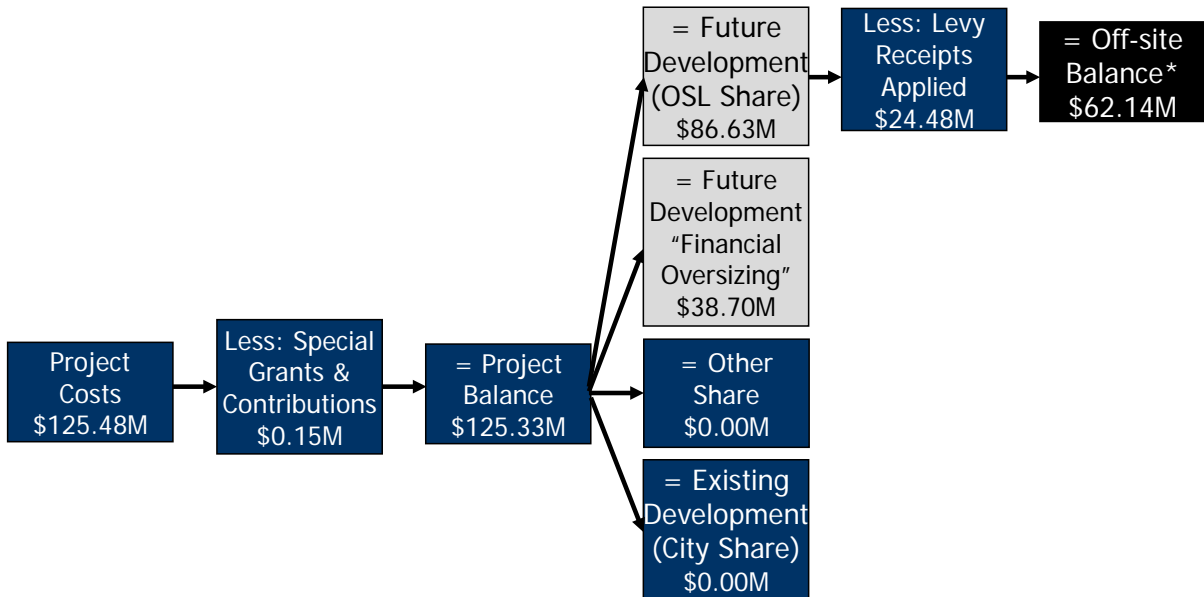
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Campsite Road Twinning	\$ 137,529	\$ 137,529	\$ -	\$ -
2	Grove Drive - Century Road to Greystone	\$ 56,771	\$ 56,771	\$ -	\$ -
3	Traffic Signals - Campsite Road and McLeod Ave	\$ 203,441	\$ 203,441	\$ -	\$ -
4	Traffic Signals - Campsite Road and Grove Drive	\$ 104,864	\$ 104,864	\$ -	\$ -
5	Grove Drive Twinning/Widening - Campsite to Century	\$ 5,828,599	\$ 5,828,599	\$ -	\$ -
6	TLC Signalization	\$ 262,197	\$ 262,197	\$ -	\$ -
7	Century Road Widening/Landscaping	\$ 1,872,896	\$ 1,872,896	\$ -	\$ -
8	Grove Drive East/West	\$ 3,130,734	\$ 3,130,734	\$ -	\$ -
9	Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection	\$ 200,970	\$ 200,970	\$ -	\$ -
10	Century Road South of Diamond Ave.	\$ 1,322,252	\$ 1,322,252	\$ -	\$ -
11	Traffic Signals - Highway 16A/Century Crossing	\$ 376,862	\$ 376,862	\$ -	\$ -
12	Century Road/ Grove Drive Intersection	\$ 1,546,798	\$ 1,546,798	\$ -	\$ -
13	Grove Drive East Extension	\$ 1,650,186	\$ 1,650,186	\$ -	\$ -
14	Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest	\$ 370,210	\$ 370,210	\$ -	\$ -
15	Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and	\$ 12,319,479	\$ -	\$ 1,030,886	\$ 11,288,593
16	South Industrial Arterial - Tamarack Drive	\$ 760,710	\$ -	\$ 66,832	\$ 693,878
17	Traffic Signals - Grove Drive and Deer Park	\$ 261,976	\$ 137,529	\$ 10,933	\$ 113,514
18	Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the	\$ 2,747,442	\$ 1,696,507	\$ 83,046	\$ 967,889
19	Tamarack Drive 2LAUD - 200m from Golden Spike Rd east	\$ 497,760	\$ -	\$ 37,196	\$ 460,564
20	Tamarack Drive 2LAUD - 1400m from existing to Century Rd	\$ 3,484,320	\$ -	\$ 260,372	\$ 3,223,948
21	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd	\$ 1,159,984	\$ -	\$ 256,450	\$ 903,534
22	Tamarack Drive 2LAUD - 90m from Golden Spike Rd west	\$ 276,696	\$ -	\$ 21,368	\$ 255,328
23	Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd	\$ 4,611,600	\$ -	\$ 356,141	\$ 4,255,459
24	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd	\$ 2,576,640	\$ -	\$ 174,093	\$ 2,402,547
25	Pioneer Road 2LAUD - 400m south of Hwy 16A	\$ 409,920	\$ -	\$ 22,944	\$ 386,976
26	Pioneer Road 4LAUD - 400m south of Hwy 16A	\$ 175,680	\$ -	\$ 2,365	\$ 173,315
27	Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr	\$ 3,074,400	\$ -	\$ 224,358	\$ 2,850,042
28	Century Road 2LAUD - 2400m Hwy 16A to south boundary	\$ 3,049,800	\$ -	\$ 342,164	\$ 2,707,636
29	Century Road 4LAUD - 2400m Hwy 16A to south boundary	\$ 1,756,800	\$ -	\$ 75,929	\$ 1,680,871
30	Grove Drive East 4LAUD - 1000m to Pioneer Rd	\$ 2,620,800	\$ -	\$ 256,819	\$ 2,363,981
31	Grove Drive West 2LAUD - 600m to Boundary Rd	\$ 2,378,134	\$ -	\$ 190,764	\$ 2,187,370
32	Grove Drive West 4LAUD - 1400m to Boundary Rd	\$ 2,190,423	\$ -	\$ 83,362	\$ 2,107,061
33	Campsite Road 2LAUD - 1300m from CN to south boundary	\$ 2,664,480	\$ -	\$ 191,612	\$ 2,472,868
34	Campsite Road 4LAUD - 1300m from CN to south boundary	\$ 468,000	\$ -	\$ 6,301	\$ 461,699
35	Golden Spike Road 2LAUD - 1400m to south boundary	\$ 3,344,000	\$ -	\$ 276,499	\$ 3,067,501
36	Golden Spike Road 4LAUD - 1400m to south boundary	\$ 1,434,720	\$ -	\$ 80,305	\$ 1,354,415
37	Boundary Road 2LAUD - 1200m to Hwy16A	\$ 9,606,869	\$ -	\$ 595,391	\$ 9,011,478
38	Traffic Signals - Boundary @ McLeod	\$ 72,000	\$ -	\$ 3,112	\$ 68,888
39	Traffic Signals - Hwy 16A - between Boundary & Campsite	\$ 360,000	\$ -	\$ 28,414	\$ 331,586
40	Traffic Signals - Campsite - between Grove Dr & Hwy 16	\$ 266,771	\$ -	\$ 25,335	\$ 241,436
41	Traffic Signals - Campsite @ Diamond	\$ 230,400	\$ -	\$ 17,028	\$ 213,372
42	Traffic Signals - Campsite @ Tamarack	\$ 216,000	\$ -	\$ 15,763	\$ 200,237
43	Traffic Signals - Golden Spike @ Diamond	\$ 316,800	\$ -	\$ 24,619	\$ 292,181
44	Traffic Signals - Golden Spike @ Tamarack	\$ 230,400	\$ -	\$ 17,028	\$ 213,372
45	Traffic Signals - Century @ Diamond	\$ 302,400	\$ -	\$ 23,353	\$ 279,047
46	Traffic Signals - Century @ Tamarack	\$ 57,600	\$ -	\$ 1,847	\$ 55,753
47	Traffic Signals - Grove Dr @ Greenbury Blvd	\$ 201,600	\$ -	\$ 27,149	\$ 174,451
48	Arterial Toplift Asphalt	\$ 785,584	\$ -	\$ 33,193	\$ 752,391
49	Pioneer Road Top Lift Asphalt	\$ 1,537,920	\$ -	\$ 56,943	\$ 1,480,977
50	Campsite Road Functional Plan	\$ 192,000	\$ -	\$ 8,919	\$ 183,081
51	Century Road 2LAUD - Century Close to south boundary	\$ 2,923,320	\$ -	\$ 104,187	\$ 2,819,133
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ 553,628	\$ -	\$ (553,628)
		\$ 86,627,736	\$ 19,451,973	\$ 5,033,020	\$ 62,142,743

D6. Summary of Transportation Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for transportation infrastructure that forms the basis of the rate is approximately **\$57.54 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section D4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Transportation Offsite Levy Costs



D7. Transportation Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefiting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefiting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefiting area are used to determine rates.

Benefiting Areas for Transportation Offsite Infrastructure

Item	Project Description	Developer Cost	1	2	3	4	5	6	7	8	9	10	11
1	Campsite Road Twinning	\$ -	1	1	1	1	1	1	1	1	1	1	1
2	Grove Drive - Century Road to Greystone	\$ -	1	1	1	1	1	1	1	1	1	1	1
3	Traffic Signals - Campsite Road and McLeod Ave	\$ -	1	1	1	1	1	1	1	1	1	1	1
4	Traffic Signals - Campsite Road and Grove Drive	\$ -	1	1	1	1	1	1	1	1	1	1	1
5	Grove Drive Twinning/Widening - Campsite to Century	\$ -	1	1	1	1	1	1	1	1	1	1	1
6	TLC Signalization	\$ -	1	1	1	1	1	1	1	1	1	1	1
7	Century Road Widening/Landscaping	\$ -	1	1	1	1	1	1	1	1	1	1	1
8	Grove Drive East/West	\$ -	1	1	1	1	1	1	1	1	1	1	1
9	Traffic Signals - Jennifer Heil Way and Hawthorne Gate Intersection	\$ -	1	1	1	1	1	1	1	1	1	1	1
10	Century Road South of Diamond Ave.	\$ -	1	1	1	1	1	1	1	1	1	1	1
11	Traffic Signals - Highway 16A/Century Crossing	\$ -	1	1	1	1	1	1	1	1	1	1	1
12	Century Road/ Grove Drive Intersection	\$ -	1	1	1	1	1	1	1	1	1	1	1
13	Grove Drive East Extension	\$ -	1	1	1	1	1	1	1	1	1	1	1
14	Traffic Signals - (1) Grove Dr and Greystone, and (2) Grove Dr and Harvest	\$ -	1	1	1	1	1	1	1	1	1	1	1
15	Pioneer Rd - Grove Dr to Highway 16A with roundabout at McLeod Ave and	\$ 11,288,593	1	1	1	1	1	1	1	1	1	1	1
16	South Industrial Arterial - Tamarack Drive	\$ 693,878	1	1	1	1	1	1	1	1	1	1	1
17	Traffic Signals - Grove Drive and Deer Park	\$ 113,514	1	1	1	1	1	1	1	1	1	1	1
18	Widening Jennifer Heil Road/Campsite Rd from McLeod Ave to south of the	\$ 967,889	1	1	1	1	1	1	1	1	1	1	1
19	Tamarack Drive 2LAUD - 200m from Golden Spike Rd east	\$ 460,564	1	1	1	1	1	1	1	1	1	1	1
20	Tamarack Drive 2LAUD - 1400m from existing to Century Rd	\$ 3,223,948	1	1	1	1	1	1	1	1	1	1	1
21	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Century Rd	\$ 903,534	1	1	1	1	1	1	1	1	1	1	1
22	Tamarack Drive 2LAUD - 90m from Golden Spike Rd west	\$ 255,328	1	1	1	1	1	1	1	1	1	1	1
23	Tamarack Drive 2LAUD - 1500m from existing to Campsite Rd	\$ 4,255,459	1	1	1	1	1	1	1	1	1	1	1
24	Tamarack Drive 4LAUD - 1600m from Golden Spike Rd to Campsite Rd	\$ 2,402,547	1	1	1	1	1	1	1	1	1	1	1
25	Pioneer Road 2LAUD - 400m south of Hwy 16A	\$ 386,976	1	1	1	1	1	1	1	1	1	1	1
26	Pioneer Road 4LAUD - 400m south of Hwy 16A	\$ 173,315	1	1	1	1	1	1	1	1	1	1	1
27	Pioneer Road 4LAUD - 1400m Hwy 16A to Grove Dr	\$ 2,850,042	1	1	1	1	1	1	1	1	1	1	1
28	Century Road 2LAUD - 2400m Hwy 16A to south boundary	\$ 2,707,636	1	1	1	1	1	1	1	1	1	1	1
29	Century Road 4LAUD - 2400m Hwy 16A to south boundary	\$ 1,680,871	1	1	1	1	1	1	1	1	1	1	1
30	Grove Drive East 4LAUD - 1000m to Pioneer Rd	\$ 2,363,981	1	1	1	1	1	1	1	1	1	1	1
31	Grove Drive West 2LAUD - 600m to Boundary Rd	\$ 2,187,370	1	1	1	1	1	1	1	1	1	1	1
32	Grove Drive West 4LAUD - 1400m to Boundary Rd	\$ 2,107,061	1	1	1	1	1	1	1	1	1	1	1
33	Campsite Road 2LAUD - 1300m from CN to south boundary	\$ 2,472,868	1	1	1	1	1	1	1	1	1	1	1
34	Campsite Road 4LAUD - 1300m from CN to south boundary	\$ 461,699	1	1	1	1	1	1	1	1	1	1	1
35	Golden Spike Road 2LAUD - 1400m to south boundary	\$ 3,067,501	1	1	1	1	1	1	1	1	1	1	1
36	Golden Spike Road 4LAUD - 1400m to south boundary	\$ 1,354,415	1	1	1	1	1	1	1	1	1	1	1
37	Boundary Road 2LAUD - 1200m to Hwy16A	\$ 9,011,478	1	1	1	1	1	1	1	1	1	1	1
38	Traffic Signals - Boundary @ McLeod	\$ 68,888	1	1	1	1	1	1	1	1	1	1	1
39	Traffic Signals - Hwy 16A - between Boundary & Campsite	\$ 331,586	1	1	1	1	1	1	1	1	1	1	1
40	Traffic Signals - Campsite - between Grove Dr & Hwy 16	\$ 241,436	1	1	1	1	1	1	1	1	1	1	1
41	Traffic Signals - Campsite @ Diamond	\$ 213,372	1	1	1	1	1	1	1	1	1	1	1
42	Traffic Signals - Campsite @ Tamarack	\$ 200,237	1	1	1	1	1	1	1	1	1	1	1
43	Traffic Signals - Golden Spike @ Diamond	\$ 292,181	1	1	1	1	1	1	1	1	1	1	1
44	Traffic Signals - Golden Spike @ Tamarack	\$ 213,372	1	1	1	1	1	1	1	1	1	1	1
45	Traffic Signals - Century @ Diamond	\$ 279,047	1	1	1	1	1	1	1	1	1	1	1
46	Traffic Signals - Century @ Tamarack	\$ 55,753	1	1	1	1	1	1	1	1	1	1	1
47	Traffic Signals - Grove Dr @ Greenbury Blvd	\$ 174,451	1	1	1	1	1	1	1	1	1	1	1
48	Arterial Toplift Asphalt	\$ 752,391	1	1	1	1	1	1	1	1	1	1	1
49	Pioneer Road Top Lift Asphalt	\$ 1,480,977	1	1	1	1	1	1	1	1	1	1	1
50	Campsite Road Functional Plan	\$ 183,081	1	1	1	1	1	1	1	1	1	1	1
51	Century Road 2LAUD - Century Close to south boundary	\$ 2,819,133	1	1	1	1	1	1	1	1	1	1	1
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ (553,628)	1	1	1	1	1	1	1	1	1	1	1
		\$ 62,142,743											

D8. Reserve Balance

The balance of the City's transportation reserve at December 31st, 2021 is **\$(12,429,718)**. This updated balance takes into consideration expenditures up to end-2021 and assumes that front-ending debts will be drawn down via a withdrawal of all available cash in the account.

Transportation Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2016		\$ 23,395,137.23	\$ (23,395,137.23)
Offsite Levy Receipt Allocations to December 31, 2016	\$ 19,451,973.12		\$ (3,943,164.11)
Unallocated Receipts (Adjustments made during 2019 update - see updated contin	\$ 556,372.94	\$ 2,745.00	\$ (3,389,536.17)
			\$ (3,389,536.17)
Opening Balance			\$ (3,389,536.17)

City of Spruce Grove Offsite Levy Rates Review

2017			\$ (3,389,536.17)
Interest on Opening Balance		\$ 91,856.43	\$ (3,481,392.60)
Project Expenditures (OSL Share)		\$ 3,960,947.32	\$ (7,442,339.92)
Offsite Levy Receipts	\$ 1,896,536		\$ (5,545,803.47)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (5,545,803.47)
Debenture Interest Accrued This Year		\$ -	\$ (5,545,803.47)
Interest on Project Expenditure		\$ 26,835.42	\$ (5,572,638.89)
Interest on Offsite Levy Receipts	\$ 8,060.28		\$ (5,564,578.61)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (5,564,578.61)
Interest on Debenture Expenditure		\$ -	\$ (5,564,578.61)
2018			\$ (5,564,578.61)
Interest on Opening Balance		\$ 150,800.08	\$ (5,715,378.69)
Project Expenditures (OSL Share)		\$ 4,806,439.90	\$ (10,521,818.59)
Offsite Levy Receipts	\$ 492,524.00		\$ (10,029,294.59)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (10,029,294.59)
Debenture Interest Accrued This Year		\$ -	\$ (10,029,294.59)
Interest on Project Expenditure		\$ 32,563.63	\$ (10,061,858.22)
Interest on Offsite Levy Receipts	\$ 2,093.23		\$ (10,059,764.99)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (10,059,764.99)
Interest on Debenture Expenditure		\$ -	\$ (10,059,764.99)
2019			\$ (10,059,764.99)
Interest on Opening Balance		\$ 251,368.38	\$ (10,311,133.37)
Project Expenditures (OSL Share)		\$ 3,185,850.42	\$ (13,496,983.79)
Offsite Levy Receipts	\$ 68,620.55		\$ (13,428,363.24)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (13,428,363.24)
Debenture Interest Accrued This Year		\$ -	\$ (13,428,363.24)
Interest on Project Expenditure		\$ 19,901.61	\$ (13,448,264.85)
Interest on Offsite Levy Receipts	\$ 823.45		\$ (13,447,441.40)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (13,447,441.40)
Interest on Debenture Expenditure		\$ -	\$ (13,447,441.40)
2020			\$ (13,447,441.40)
Interest on Opening Balance		\$ 336,186.04	\$ (13,783,627.44)
Project Expenditures (OSL Share)		\$ 579,021.18	\$ (14,362,648.62)
Offsite Levy Receipts	\$ 188,983.74		\$ (14,173,664.88)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (14,173,664.88)
Debenture Interest Accrued This Year		\$ -	\$ (14,173,664.88)
Interest on Project Expenditure		\$ 3,618.88	\$ (14,177,283.76)
Interest on Offsite Levy Receipts	\$ 755.93		\$ (14,176,527.82)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (14,176,527.82)
Interest on Debenture Expenditure		\$ -	\$ (14,176,527.82)
2021			\$ (14,176,527.82)
Interest on Opening Balance		\$ 354,413.20	\$ (14,530,941.02)
Project Expenditures (OSL Share)		\$ 292,847.70	\$ (14,823,788.72)
Offsite Levy Receipts	\$ 2,386,355.19		\$ (12,437,433.53)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (12,437,433.53)
Debenture Interest Accrued This Year		\$ -	\$ (12,437,433.53)
Interest on Project Expenditure		\$ 1,830.30	\$ (12,439,263.83)
Interest on Offsite Levy Receipts	\$ 9,545.42		\$ (12,429,718.41)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (12,429,718.41)
Interest on Debenture Expenditure		\$ -	\$ (12,429,718.41)

D9. Development and Transportation Infrastructure Staging Impacts

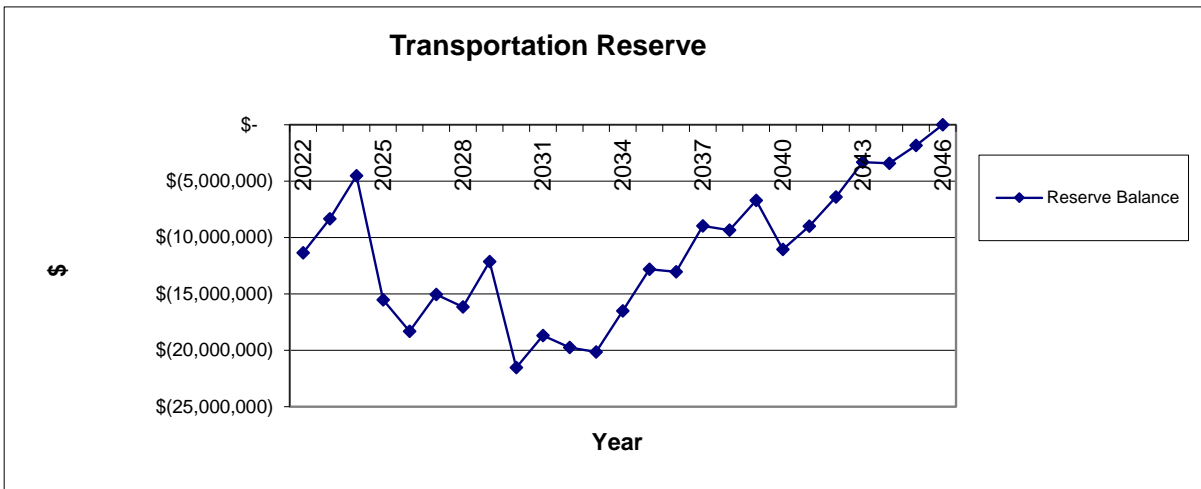
Transportation offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of transportation infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for

infrastructure that benefits other parties. The front-end (be it a municipality or a developer) is reimbursed over time as levies are collected, and in accordance with the municipality's front-ending repayment policies.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.50%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **0.80%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Transportation Offsite Levy Reserve Balances⁵



⁵ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the equivalent \$X rate paid in the future (i.e., it is discounted).

Anticipated Transportation Offsite Levy Reserve Balances

			Reserve Balance	\$ (12,429,718)
Year	Receipts	Expenditure	Interest	Balance
2022	\$ 3,432,439	\$ 2,098,457	\$ (277,393)	\$ (11,373,130)
2023	\$ 4,849,583	\$ 1,625,568	\$ (203,728)	\$ (8,352,843)
2024	\$ 3,951,592	\$ 10,315	\$ (110,289)	\$ (4,521,854)
2025	\$ 3,624,028	\$ 14,254,805	\$ (378,816)	\$ (15,531,447)
2026	\$ 3,384,368	\$ 5,726,432	\$ (446,838)	\$ (18,320,349)
2027	\$ 3,863,863	\$ 239,385	\$ (367,397)	\$ (15,063,267)
2028	\$ 3,835,741	\$ 4,531,942	\$ (393,987)	\$ (16,153,455)
2029	\$ 4,323,955	\$ 6,308	\$ (295,895)	\$ (12,131,704)
2030	\$ 4,241,665	\$ 13,110,784	\$ (525,021)	\$ (21,525,843)
2031	\$ 3,915,788	\$ 629,110	\$ (455,979)	\$ (18,695,145)
2032	\$ 4,033,262	\$ 4,598,608	\$ (481,512)	\$ (19,742,003)
2033	\$ 4,198,531	\$ 4,124,905	\$ (491,709)	\$ (20,160,086)
2034	\$ 4,047,973	\$ 764	\$ (402,822)	\$ (16,515,699)
2035	\$ 4,021,217	\$ -	\$ (312,362)	\$ (12,806,844)
2036	\$ 4,141,854	\$ 4,050,224	\$ (317,880)	\$ (13,033,094)
2037	\$ 4,266,109	\$ -	\$ (219,175)	\$ (8,986,159)
2038	\$ 3,513,868	\$ 3,652,815	\$ (228,128)	\$ (9,353,234)
2039	\$ 2,793,516	\$ -	\$ (163,993)	\$ (6,723,711)
2040	\$ 2,308,346	\$ 6,371,627	\$ (269,675)	\$ (11,056,667)
2041	\$ 2,279,133	\$ -	\$ (219,438)	\$ (8,996,973)
2042	\$ 2,867,123	\$ 135,139	\$ (156,625)	\$ (6,421,613)
2043	\$ 3,296,266	\$ 111,355	\$ (80,918)	\$ (3,317,619)
2044	\$ 3,080,487	\$ 3,097,846	\$ (83,374)	\$ (3,418,352)
2045	\$ 1,631,342	\$ -	\$ (44,675)	\$ (1,831,686)
2046	\$ 1,831,686	\$ -	\$ -	\$ (0)

APPENDIX E: RECREATION OFFSITE INFRASTRUCTURE

E1. Recreation Offsite Infrastructure Costs

To support future growth, recreation offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$26.64 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Recreation Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Civic Centre (Recreation Facilities)	\$ -	\$ 11,161,739	\$ 15,481,766	\$ 26,643,505
		\$ -	\$ 11,161,739	\$ 15,481,766	\$ 26,643,505

*On June 13, 2022, City of Spruce Grove Council approved to proceed with the construction of the Civic Centre. This **\$72.79 million** project will be situated on Westwind Drive and includes: (1) a spectator ice rink, (2) a community ice rink (**\$15.48 million**), (3) an art gallery, (4) a black box performing arts theatre/flex space, and (5) a library branch (**\$5.97 million**). The cost of the community ice rink (**\$15.48 million**) and the cost of library branch (**\$5.97 million**), which together total **\$21.45 million** out of the **\$72.79 million** total project cost, are attributed to future growth and are included in the offsite levy rates. The construction of the project is beginning in 2022, with the City front-ending the cost of construction. Financing of the community ice rink and the library branch (i.e., those project elements attributed to future growth) is enabled by a **\$21.45 million** debenture over 25 years. The interest costs associated with the debenture, which totals **\$11.16 million** for the community ice rink and **\$4.30 million** for the library branch, also form part of the offsite levy rates. All areas of the City will benefit from the Civic Centre project.

**Costs estimates are reflected in current dollars.

***Estimates include engineering costs and contingencies.

****Offsite levy project details, allocations, etc. were determined by City staff and their engineering/consulting advisors.

E2. Recreation Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$0.00** in special grants and contributions for recreation offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$26.64 million**.

Special Grants and Contributions for Recreation Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Civic Centre (Recreation Facilities)	\$ 26,643,505	\$ -	\$ -	\$ 26,643,505
		\$ 26,643,505	\$ -	\$ -	\$ 26,643,505

E3. Recreation Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Recreation Infrastructure Staging

Item	Project Description	Construction Start Year
1	Civic Centre (Recreation Facilities)	2022

*The share of projects beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

**Costs are inflated to the year of construction using an inflation rate of 5% for the first 2 years, and 3% thereafter.

E4. Recreation Offsite Infrastructure Benefiting Parties

The recreation offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. The potential benefiting parties were include:

- City of Spruce Grove – that portion of cost which is required to service existing residents.
- Other Stakeholders - other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (in Rates) – all growth-related infrastructure (i.e., leviable recreation infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of recreation offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Recreation Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Civic Centre (Recreation Facilities)	\$ 26,643,505			0.0%	100.0%
		\$ 26,643,505				

*Allocations to future development (vs municipal share etc.) were determined by City staff and their engineering/consulting advisors.

**Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations. For example, a project which is slated to be constructed in year 20 of the 25-year review period will have 20% (5/25) of its costs in rates today, and 80% (20/25) of its costs will sit beyond the 25-year review period.

E5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$26.64 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$0.00** in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$26.64 million**.

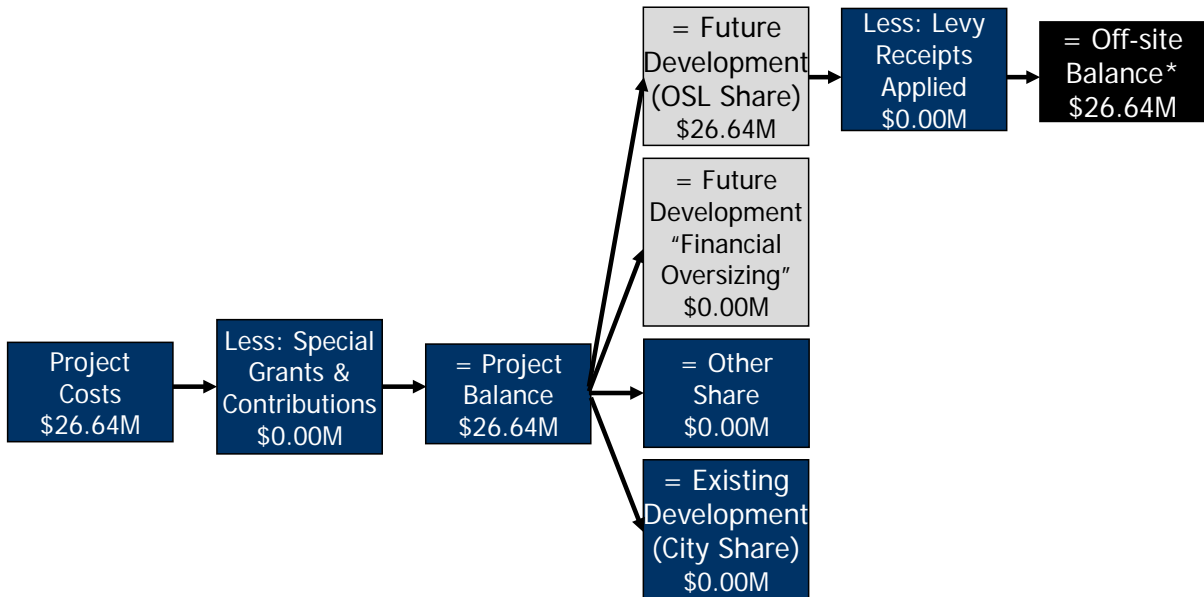
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Civic Centre (Recreation Facilities)	\$ 26,643,505	\$ -	\$ -	\$ 26,643,505
		\$ 26,643,505	\$ -	\$ -	\$ 26,643,505

E6. Summary of Recreation Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for recreation infrastructure that forms the basis of the rate is approximately **\$26.64 million**. The cost allocations to each benefiting party are based on the benefiting percentages shown in Section F4. The offsite levy balance (due from developers) is allocated to various benefiting areas (as described in the next section).

Total Recreation Offsite Levy Costs



E7. Recreation Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefiting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefiting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefiting area are used to determine rates.

Benefiting Areas for Recreation Offsite Infrastructure

Item	Project Description	Developer Cost	1	2	3	4	5	6	7	8	9	10	11
1	Civic Centre (Recreation Facilities)	\$ 26,643,505	1	1	1	1	1	1	1	1	1	1	1
		\$ 26,643,505											

E8. Reserve Balance

As a new account, the balance of the City’s recreation reserve at December 31st, 2021 is **\$0.00**.

Recreation Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2021		\$ -	\$ -
Offsite Levy Receipt Allocations to December 31, 2021	\$ -		\$ -
Debenture Interest Accrued to December 31, 2021		\$ -	\$ -
Unallocated Receipts to December 31, 2021	\$ -		\$ -
Opening Balance			\$ -

E9. Development and Recreation Infrastructure Staging Impacts

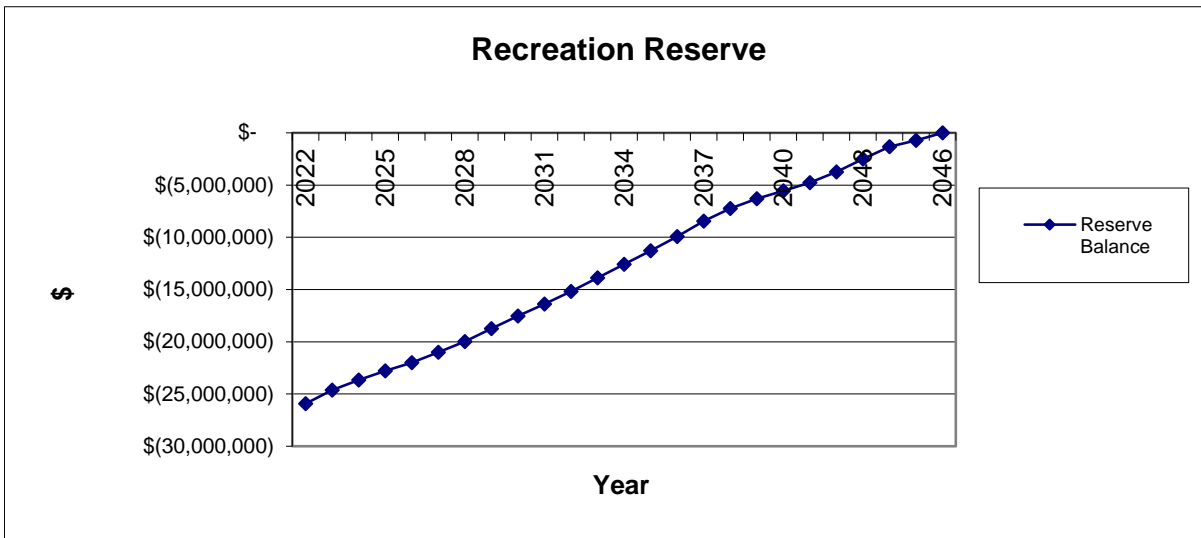
Recreation offsite infrastructure will be constructed in staged fashion over the 25-year

review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of recreation infrastructure from time to time—front ending of infrastructure will be required. A front-end is the party that constructs and pays up front for infrastructure that benefits other parties. The front-end (be it a municipality or a developer) is reimbursed over time as levies are collected, and in accordance with the municipality’s front-ending repayment policies.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.50%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **0.80%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Recreation Offsite Levy Reserve Balances⁶



⁶ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the equivalent \$X rate paid in the future (i.e., it is discounted).

Anticipated Recreation Offsite Levy Reserve Balances

		Opening Balance		\$ -
Year	Receipts	Expenditure	Interest	Balance
2022	\$ 1,344,189	\$ 26,643,505	\$ (632,483)	\$ (25,931,800)
2023	\$ 1,899,161	\$ -	\$ (600,816)	\$ (24,633,455)
2024	\$ 1,547,496	\$ -	\$ (577,149)	\$ (23,663,108)
2025	\$ 1,419,218	\$ -	\$ (556,097)	\$ (22,799,987)
2026	\$ 1,325,363	\$ -	\$ (536,866)	\$ (22,011,490)
2027	\$ 1,513,140	\$ -	\$ (512,459)	\$ (21,010,808)
2028	\$ 1,502,127	\$ -	\$ (487,717)	\$ (19,996,398)
2029	\$ 1,693,318	\$ -	\$ (457,577)	\$ (18,760,657)
2030	\$ 1,661,092	\$ -	\$ (427,489)	\$ (17,527,054)
2031	\$ 1,533,475	\$ -	\$ (399,839)	\$ (16,393,419)
2032	\$ 1,579,479	\$ -	\$ (370,348)	\$ (15,184,288)
2033	\$ 1,644,201	\$ -	\$ (338,502)	\$ (13,878,590)
2034	\$ 1,585,240	\$ -	\$ (307,334)	\$ (12,600,683)
2035	\$ 1,574,762	\$ -	\$ (275,648)	\$ (11,301,569)
2036	\$ 1,622,005	\$ -	\$ (241,989)	\$ (9,921,554)
2037	\$ 1,670,665	\$ -	\$ (206,272)	\$ (8,457,161)
2038	\$ 1,376,077	\$ -	\$ (177,027)	\$ (7,258,110)
2039	\$ 1,093,978	\$ -	\$ (154,103)	\$ (6,318,236)
2040	\$ 903,979	\$ -	\$ (135,356)	\$ (5,549,613)
2041	\$ 892,539	\$ -	\$ (116,427)	\$ (4,773,501)
2042	\$ 1,122,804	\$ -	\$ (91,267)	\$ (3,741,965)
2043	\$ 1,290,862	\$ -	\$ (61,278)	\$ (2,512,381)
2044	\$ 1,206,360	\$ -	\$ (32,651)	\$ (1,338,672)
2045	\$ 638,855	\$ -	\$ (17,495)	\$ (717,312)
2046	\$ 717,312	\$ -	\$ (0)	\$ (0)

APPENDIX F: FIRE OFFSITE INFRASTRUCTURE

F1. Fire Offsite Infrastructure Costs

To support future growth, fire offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$13.20 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Fire Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Fire Hall #2	\$ -	\$ -	\$ 13,200,000	\$ 13,200,000
		\$ -	\$ -	\$ 13,200,000	\$ 13,200,000

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

***Offsite levy project details, allocations, etc. were determined by City staff and their engineering/consulting advisors.

F2. Fire Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$1.98 million** in special grants and contributions for fire offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$11.22 million**.

Special Grants and Contributions for Fire Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Fire Hall #2	\$ 13,200,000	\$ 1,980,000	\$ -	\$ 11,220,000
		\$ 13,200,000	\$ 1,980,000	\$ -	\$ 11,220,000

F3. Fire Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Fire Infrastructure Staging

Item	Project Description	Construction Start Year
1	Fire Hall #2	2035

*The share of projects beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

**Costs are inflated to the year of construction using an inflation rate of 5% for the first 2 years, and 3% thereafter.

F4. Fire Offsite Infrastructure Benefiting Parties

The fire offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. The potential benefiting parties were include:

- City of Spruce Grove – that portion of cost which is required to service existing residents.
- Other Stakeholders - other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (in Rates) – all growth-related infrastructure (i.e., leviable fire infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of fire offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Fire Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Fire Hall #2	\$ 11,220,000			52.0%	48.0%
		\$ 11,220,000				

*Allocations to future development (vs municipal share etc.) were determined by City staff and their engineering/consulting advisors.

**Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations. For example, a project which is slated to be constructed in year 20 of the 25-year review period will have 20% (5/25) of its costs in rates today, and 80% (20/25) of its costs will sit beyond the 25-year review period.

F5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$5.39 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts

collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$0.00 million** in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$5.39 million**.

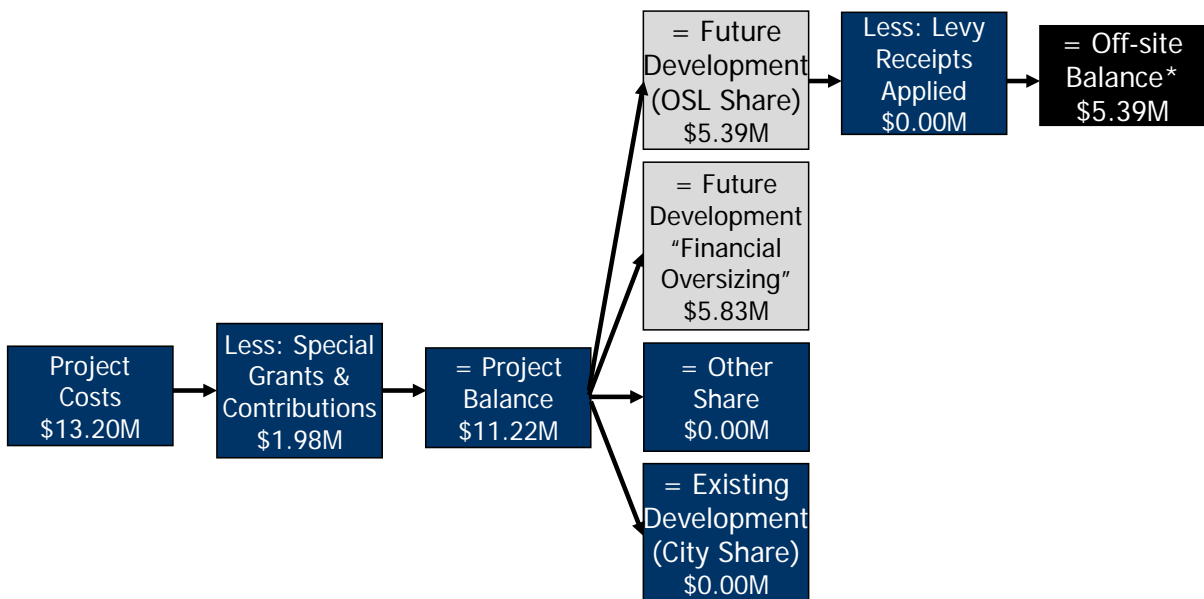
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Fire Hall #2	\$ 5,385,600	\$ -	\$ -	\$ 5,385,600
		\$ 5,385,600	\$ -	\$ -	\$ 5,385,600

F6. Summary of Fire Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for fire infrastructure that forms the basis of the rate is approximately **\$5.39 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in *Section F4*. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Fire Offsite Levy Costs



F7. Fire Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefitting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefitting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Fire Offsite Infrastructure

Item	Project Description	Developer Cost	1	2	3	4	5	6	7	8	9	10	11
1	Fire Hall #2	\$ 5,385,600	1	1	1	1	1	1	1	1	1	1	1
		\$ 5,385,600											

F8. Reserve Balance

As a new account, the balance of the City’s fire reserve at December 31st, 2021 is **\$0**.

Fire Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2021		\$ -	\$ -
Offsite Levy Receipt Allocations to December 31, 2021	\$ -		\$ -
Debenture Interest Accrued to December 31, 2021		\$ -	\$ -
Unallocated Receipts to December 31, 2021	\$ -		\$ -
Opening Balance			\$ -

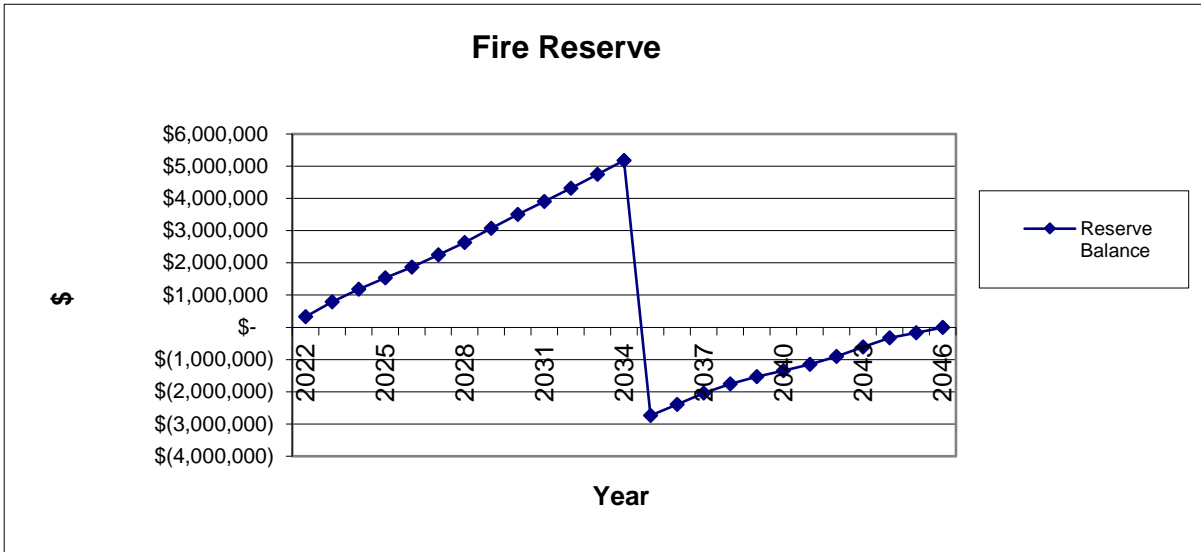
F9. Development and Fire Infrastructure Staging Impacts

Fire offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of fire infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for infrastructure that benefits other parties. The front-ender (be it a municipality or a developer) is reimbursed over time as levies are collected, and in accordance with the municipality’s front-ending repayment policies.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.50%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **0.80%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Fire Offsite Levy Reserve Balances⁷



Anticipated Fire Offsite Levy Reserve Balances

Year	Receipts	Expenditure	Opening Balance		Balance
			Interest	\$	
2022	\$ 324,877	\$ -	\$ 2,599	\$ -	\$ 327,476
2023	\$ 459,008	\$ -	\$ 6,292	\$ -	\$ 792,776
2024	\$ 374,014	\$ -	\$ 9,334	\$ -	\$ 1,176,124
2025	\$ 343,011	\$ -	\$ 12,153	\$ -	\$ 1,531,288
2026	\$ 320,327	\$ -	\$ 14,813	\$ -	\$ 1,866,428
2027	\$ 365,711	\$ -	\$ 17,857	\$ -	\$ 2,249,996
2028	\$ 363,049	\$ -	\$ 20,904	\$ -	\$ 2,633,949
2029	\$ 409,258	\$ -	\$ 24,346	\$ -	\$ 3,067,553
2030	\$ 401,469	\$ -	\$ 27,752	\$ -	\$ 3,496,775
2031	\$ 370,625	\$ -	\$ 30,939	\$ -	\$ 3,898,339
2032	\$ 381,744	\$ -	\$ 34,241	\$ -	\$ 4,314,324
2033	\$ 397,387	\$ -	\$ 37,694	\$ -	\$ 4,749,405
2034	\$ 383,137	\$ -	\$ 41,060	\$ -	\$ 5,173,602
2035	\$ 380,604	\$ 8,219,060	\$ (66,621)	\$ -	\$ (2,731,476)
2036	\$ 392,022	\$ -	\$ (58,486)	\$ -	\$ (2,397,940)
2037	\$ 403,783	\$ -	\$ (49,854)	\$ -	\$ (2,044,011)
2038	\$ 332,584	\$ -	\$ (42,786)	\$ -	\$ (1,754,212)
2039	\$ 264,403	\$ -	\$ (37,245)	\$ -	\$ (1,527,054)
2040	\$ 218,483	\$ -	\$ (32,714)	\$ -	\$ (1,341,286)
2041	\$ 215,718	\$ -	\$ (28,139)	\$ -	\$ (1,153,707)
2042	\$ 271,370	\$ -	\$ (22,058)	\$ -	\$ (904,395)
2043	\$ 311,988	\$ -	\$ (14,810)	\$ -	\$ (607,217)
2044	\$ 291,565	\$ -	\$ (7,891)	\$ -	\$ (323,544)
2045	\$ 154,405	\$ -	\$ (4,228)	\$ -	\$ (173,367)
2046	\$ 173,367	\$ -	\$ -	\$ -	\$ 0

⁷ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the equivalent \$X rate paid in the future (i.e., it is discounted).

APPENDIX G: LIBRARY OFFSITE INFRASTRUCTURE

G1. Library Offsite Infrastructure Costs

To support future growth, library offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$10.26 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Library Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Civic Centre (Library)	\$ -	\$ 4,297,733	\$ 5,967,170	\$ 10,264,903
		\$ -	\$ 4,297,733	\$ 5,967,170	\$ 10,264,903

*On June 13, 2022, City of Spruce Grove Council approved to proceed with the construction of the Civic Centre. This **\$72.79 million** project will be situated on Westwind Drive and includes: (1) a spectator ice rink, (2) a community ice rink (**\$15.48 million**), (3) an art gallery, (4) a black box performing arts theatre/flex space, and (5) a library branch (**\$5.97 million**). The cost of the community ice rink (**\$15.48 million**) and the cost of library branch (**\$5.97 million**), which together total **\$21.45 million** out of the **\$72.79 million** total project cost, are attributed to future growth and are included in the offsite levy rates. The construction of the project is beginning in 2022, with the City front-ending the cost of construction. Financing of the community ice rink and the library branch (i.e., those project elements attributed to future growth) is enabled by a **\$21.45 million** debenture over 25 years. The interest costs associated with the debenture, which totals **\$11.16 million** for the community ice rink and **\$4.30 million** for the library branch, also form part of the offsite levy rates. All areas of the City will benefit from the Civic Centre project.

**Costs estimates are reflected in current dollars.

***Estimates include engineering costs and contingencies.

****Offsite levy project details, allocations, etc. were determined by City staff and their engineering/consulting advisors.

G2. Library Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$0.00** in special grants and contributions for library offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$10.26 million**.

Special Grants and Contributions for Library Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Civic Centre (Library)	\$ 10,264,903	\$ -	\$ -	\$ 10,264,903
		\$ 10,264,903	\$ -	\$ -	\$ 10,264,903

G3. Library Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Library Infrastructure Staging

Item	Project Description	Construction Start Year
1	Civic Centre (Library)	2022

*The share of projects beyond the 25-year review period are not included in rates today (see financial oversizing in next section).

**Costs are inflated to the year of construction using an inflation rate of 5% for the first 2 years, and 3% thereafter.

G4. Library Offsite Infrastructure Benefiting Parties

The library offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. The potential benefiting parties were include:

- City of Spruce Grove – that portion of cost which is required to service existing residents.
- Other Stakeholders - other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Spruce Grove Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Spruce Grove Future Development (in Rates) – all growth-related infrastructure (i.e., leviable library infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of library offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City staff.

Allocation of Library Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Civic Centre (Library)	\$ 10,264,903			0.0%	100.0%
		\$ 10,264,903				

*Allocations to future development (vs municipal share etc.) were determined by City staff and their engineering/consulting advisors.

**Financial oversizing is determined by separating out the pro rata portion of developer cost beyond the 25-year review period, in comparison with the anticipated year of construction. As the years move forward and rates are updated, these additional developer costs will be included in rate calculations. For example, a project which is slated to be constructed in year 20 of the 25-year review period will have 20% (5/25) of its costs in rates today, and 80% (20/25) of its costs will sit beyond the 25-year review period.

G5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$10.26 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$0,00** in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$10.26 million**.

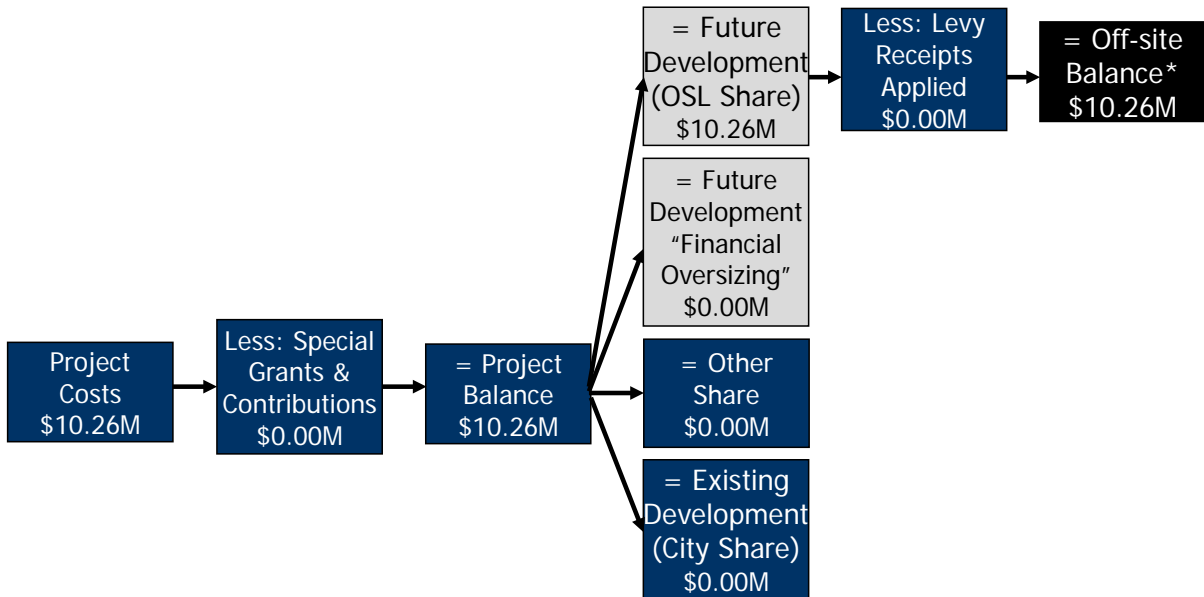
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Civic Centre (Library)	\$ 10,264,903	\$ -	\$ -	\$ 10,264,903
		\$ 10,264,903	\$ -	\$ -	\$ 10,264,903

G6. Summary of Library Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for library infrastructure that forms the basis of the rate is approximately **\$10.26 million**. The cost allocations to each benefiting party are based on the benefiting percentages shown in Section F4. The offsite levy balance (due from developers) is allocated to various benefiting areas (as described in the next section).

Total Library Offsite Levy Costs



G7. Library Infrastructure Benefiting Areas

Net developer costs for each project have been allocated to multiple benefiting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefiting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefiting area are used to determine rates.

Benefiting Areas for Library Offsite Infrastructure

Item	Project Description	Developer Cost	1	2	3	4	5	6	7	8	9	10	11
1	Civic Centre (Library)	\$ 10,264,903	1	1	1	1	1	1	1	1	1	1	1
		\$ 10,264,903											

G8. Reserve Balance

As a new account, the balance of the City’s library reserve at December 31st, 2021 is **\$0.00**.

Library Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2021		\$ -	\$ -
Offsite Levy Receipt Allocations to December 31, 2021	\$ -		\$ -
Debenture Interest Accrued to December 31, 2021		\$ -	\$ -
Unallocated Receipts to December 31, 2021	\$ -		\$ -
Opening Balance			\$ -

G9. Development and Library Infrastructure Staging Impacts

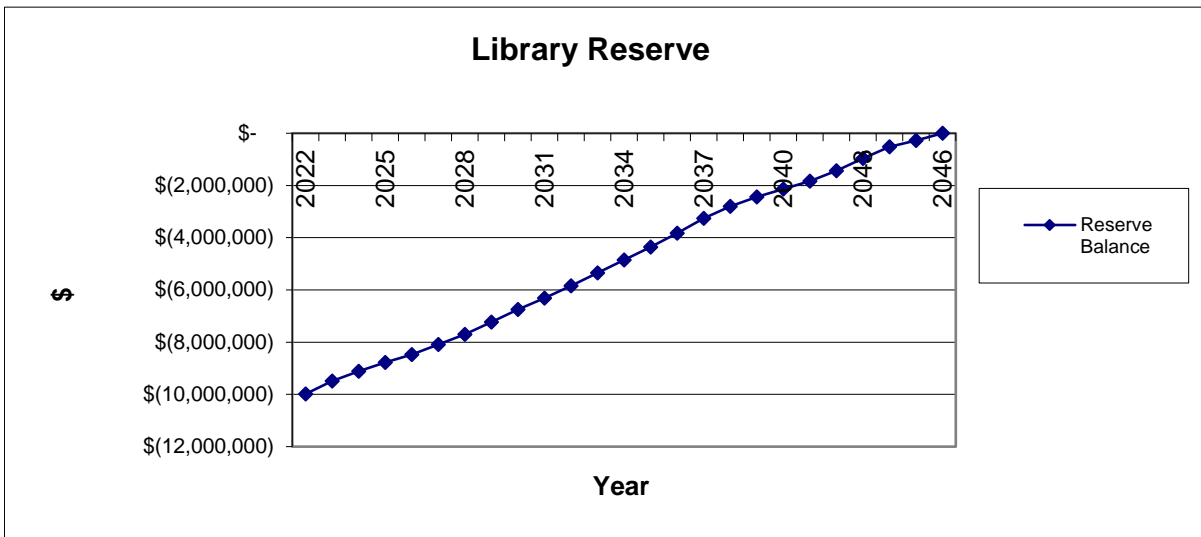
Library offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction

requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of library infrastructure from time to time—front ending of infrastructure will be required. A front-ender is the party that constructs and pays up front for infrastructure that benefits other parties. The front-ender (be it a municipality or a developer) is reimbursed over time as levies are collected, and in accordance with the municipality’s front-ending repayment policies.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.50%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **0.80%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

If necessary, an interest staging adjustment has been applied to rates (slightly positive or slightly negative) to ensure that the forecast reserve balance at the end of the 25-year review period always returns to break-even (i.e., developers are not charged too much thereby providing a windfall to the City, nor are they charged too little thereby placing an unequitable burden on taxpayers).

Anticipated Library Offsite Levy Reserve Balances⁸



⁸ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the equivalent \$X rate paid in the future (i.e., it is discounted).

Anticipated Library Offsite Levy Reserve Balances

Year	Receipts	Expenditure	Opening Balance		Balance
				Interest	
					\$ -
2022	\$ 517,874	\$ 10,264,903	\$ (243,676)		\$ (9,990,706)
2023	\$ 731,687	\$ -	\$ (231,475)		\$ (9,490,494)
2024	\$ 596,201	\$ -	\$ (222,357)		\$ (9,116,650)
2025	\$ 546,780	\$ -	\$ (214,247)		\$ (8,784,117)
2026	\$ 510,621	\$ -	\$ (206,837)		\$ (8,480,334)
2027	\$ 582,965	\$ -	\$ (197,434)		\$ (8,094,803)
2028	\$ 578,722	\$ -	\$ (187,902)		\$ (7,703,982)
2029	\$ 652,382	\$ -	\$ (176,290)		\$ (7,227,890)
2030	\$ 639,966	\$ -	\$ (164,698)		\$ (6,752,622)
2031	\$ 590,799	\$ -	\$ (154,046)		\$ (6,315,868)
2032	\$ 608,523	\$ -	\$ (142,684)		\$ (5,850,028)
2033	\$ 633,459	\$ -	\$ (130,414)		\$ (5,346,984)
2034	\$ 610,743	\$ -	\$ (118,406)		\$ (4,854,646)
2035	\$ 606,706	\$ -	\$ (106,199)		\$ (4,354,139)
2036	\$ 624,907	\$ -	\$ (93,231)		\$ (3,822,462)
2037	\$ 643,655	\$ -	\$ (79,470)		\$ (3,258,278)
2038	\$ 530,159	\$ -	\$ (68,203)		\$ (2,796,321)
2039	\$ 421,475	\$ -	\$ (59,371)		\$ (2,434,217)
2040	\$ 348,275	\$ -	\$ (52,149)		\$ (2,138,091)
2041	\$ 343,867	\$ -	\$ (44,856)		\$ (1,839,080)
2042	\$ 432,581	\$ -	\$ (35,162)		\$ (1,441,661)
2043	\$ 497,328	\$ -	\$ (23,608)		\$ (967,941)
2044	\$ 464,772	\$ -	\$ (12,579)		\$ (515,748)
2045	\$ 246,131	\$ -	\$ (6,740)		\$ (276,358)
2046	\$ 276,358	\$ -	\$ (0)		\$ (0)

APPENDIX H: RATE COMPARISON

The table below compares the City of Spruce Grove offsite levy rates to rates in other municipalities.

Municipality / Area	Average Per Ha.
City of Beaumont* Residential (roads, water, sewer)	\$53,900 - \$77,600 (2019)
City of Lacombe* (roads, water, sewer, storm)	\$19,800 - \$120,100 (2013)
City of Brooks* (roads, water, sewer, storm)	\$79,823 (2021)
City of Beaumont* Industrial (roads, water, sewer)	\$80,900 - \$116,390 (2019)
City of Cold Lake* (roads, water, sewer, storm)	\$103,000 (2007)
City of Fort Saskatchewan* (South Fort) (roads, water, sewer, storm)	\$104,100 (2017)
City of Lloydminster (roads, water, sewer)	\$112,900 (2011)
City of Leduc* (roads, water, sewer)	\$138,500 (2021)
City of Spruce Grove* (roads, water, sewer, rec, fire, library)	\$152,084 (New)
City of Red Deer* (roads, water, sewer, storm)	\$203,300 (2019)
Red Deer County (Gasoline Alley) (roads, water, sewer, storm)	\$220,000 (2017)
City of Medicine Hat* (subsidy) (roads, water, sewer, storm)	TBC In Progress
Strathcona County (New Growth Areas)* (roads, water, sewer, storm)	\$ 251,000 (2021)
City of Lethbridge (roads, water, sewer, storm)	\$281,000 (2020)
City of Chestermere* (roads, water, sewer, storm, recreation)	\$295,960 (2022) In Progress
City of St. Albert* (roads, water, sewer, storm)	+\$325,000 (2022)
City of Edmonton (roads, water, sewer, storm, fire)	+\$400,000
City of Calgary Green Field Area (roads, water, sewer, storm, comm svc, stabilization)	\$495,000 - \$544,000

*CORVUS clients

**Information adapted from recent online sources. Note, some municipalities have updated (or are in the process of updating) levy rates, but these rates were not available online at the time of writing.