City of Cold Lake:
Offsite Levy Review

Version 4
December 9th, 2016

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December 9th, 2016

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RE: City of Cold Lake Offsite Levy Review

Azam:

Enclosed is our report for the City of Cold Lake Offsite Levy Review. If you have any questions do not hesitate to contact me.

Yours truly,

Greg Weiss
President

1 DOCUMENT INFORMATION

Version Number	Revision Date	Summary of Changes and Author
1.0	June 6th, 2016	Created by CORVUS Business Advisors
2.0	October 7th, 2016	Reviewed with Administration
3.0	November 24th, 2016	Reviewed with Council. Engineering allocation edits.
4.0	December 9th, 2016	Final

2 CONTENTS

3 INTRODUCTION

3.1 Introduction

Bylaw #281-DA-07, established by the City of Cold Lake ("the City") in 2007 and updated in 2010, defines offsite levy rates for the City. Currently, the bylaw includes an offsite levy rate of $84,057 per net hectare (Water $21,554 + Sanitary $14,906 + Transportation $47,597 + Stormwater $0.00), which is based on infrastructure cost estimates of approximately $106.22 million and land development of 1373 ha. The 2010 rate is applied uniformly across all areas and does not make any accommodation for actual benefitting areas, infrastructure staging impacts, development staging impacts, specific payback periods, or reserve interest impacts, etc.

The City wishes to facilitate sustainable growth by updating transportation, water, sanitary, and stormwater offsite infrastructure requirements to ensure they meet the needs of development, and also ensure that accompanying charges are fair and equitable, comply with legislative and regulatory requirements, and recover the full cost of the infrastructure in order to ensure a financially sustainable community.

This report outlines the methodology and information used in updating the City's transportation, water, sanitary, and stormwater offsite levy rates, as well as other key findings and recommendations.

3.2 Methodology

The City of Cold Lake has created various infrastructure master plans, and these plans have been used as key inputs into this offsite levy rate review. City staff reviewed existing plans and identified offsite projects for transportation, water, sanitary, and stormwater infrastructure[1]. Each project was assessed for benefiting areas using the offsite levy areas identified in this report. The City's assessment also included determination of benefits to existing development and future development.

Support provided by CORVUS Business Advisors included:

- Provision of the CORVUS offsite levy model, including configuration, priming, and data loading.
- Facilitation of a workshop to determine offsite levy area boundaries.
- Incorporation of offsite levy area measurements and land development forecasts (provided by City planning staff).
- Incorporation of infrastructure costs and allocation percentages for existing development, new development, and other parties (provided by City engineering staff).
- Establishment of offsite levy reserve opening balances and front-ending balances

[1] It was not within CORVUS' scope of work to review the City's master plans.

(based on information provided by City staff).

- Development of transportation, water, sanitary, and stormwater offsite levy rates for each offsite levy area.
- Presentation of offsite levy rates and background information to Administration, Council, and the public.

Offsite levy rates are forecast using a rolling 25-year review period. During this review, a cut-off date of December 31st, 2015 was established, and so the review period stems from 2016 to 2040. 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 moves further out, offsite infrastructure costs beyond 2040 will gradually find their way into rates.

The cut-off date coincides with the City's most recent year-end. Project expenditures, offsite levy receipts etc. were gathered as "actuals" from the City's 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, 2016 up to the new cut-off date will be converted from estimates to actuals.

4 KEY FINDINGS

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

- Offsite infrastructure costs to be included in the offsite levy bylaw total approximately $499.63 million (2016 dollars), an increase of 370% from 2010 (an increase in infrastructure costs places upward pressure on rates). An overview of offsite infrastructure costs and maps is provided in Appendices B1, C1, D1, and E1.

  Before determining how the infrastructure costs will be allocated to parties that benefit (e.g., existing development, new development, other municipalities etc.), offsite infrastructure costs are always reduced by special ear-marked grants and development contributions. The City has received (or anticipates receiving) approximately $93.93 million in special grants and contributions. An overview of grants and contributions and resulting net costs is provided in Appendices B2, C2, D2, and E2.

  The share allocated to existing development (the City's share) is approximately $152.40 million and the share allocated to other stakeholders (e.g., MD of Bonnyville) is approximately $142.91 million. Allocations are based on the allocation percentages shown in Appendices B4, C4, D4, and E4.

  Financial oversizing (the amount of cost which is allocated to future development beyond the 25-year review period) is approximately $51.17 million and is based on the anticipated year of construction. An overview of construction staging is provided in Appendices B3, C3, D3, and E3.

  Of the $499.63 million in total offsite infrastructure costs, the share allocated to future development that is included in rates today (the offsite levy share) is

approximately $59.23 million. A complete summary of offsite infrastructure net cost "flow-thru" is provided in Appendices B6, C6, D6, and E6.

Summary of Infrastructure Costs & Allocations

Infrastructure	Total Costs	Grants & Contributions	Municipal Costs	Other Stakeholder Costs	Developer Costs (Oversizing)	Developer Costs (In Rates)
Transportation	$ 120,116,663	$ 26,170,500	$ 47,000,864	$ 22,665,896	$ 11,960,937	$ 12,318,466
Water	$ 100,752,911	$ 25,899,900	$ 11,921,585	$ 49,861,599	$ 2,546,084	$ 10,523,743
Sanitary	$ 253,639,687	$ 41,855,400	$ 84,218,459	$ 58,524,326	$ 35,900,630	$ 33,140,872
Stormwater	$ 25,123,667	$ -	$ 9,255,417	$ 11,862,591	$ 759,871	$ 3,245,788
Total	$ 499,632,928	$ 93,925,800	$ 152,396,325	$ 142,914,412	$ 51,167,521	$ 59,228,869

- Before allocating infrastructure costs to benefitting lands, offsite levy costs must be reduced by amounts collected to date. Up to the cut-off date, the City has collected approximately $8.23 million in levies as shown Appendices B5, C5, D5, and E5.
- Lands do not necessarily benefit from all offsite levy infrastructure. In order to equitability facilitate the allocation of infrastructure costs to those lands that benefit from the infrastructure, the City is parsed into several smaller 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 which offsite infrastructure has been allocated to each area is provided in Appendices B7, C7, D7, and E7.
- 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 tax payers. 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 review, the City is forecasting development of approximately 319 ha. over the 25-year review period (approximately 12.8 ha. per year on average). This is a decrease of approximately 77% from the 2010 bylaw (a decrease in land development places upward pressure on rates). The land development forecast and underpinning assumptions are shown in Appendix A.
- Offsite Levy Reserves. The MGA requires that offsite levy monies be managed separately (i.e., one reserve/account for each infrastructure type) because offsite levies collected 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). To facilitate the establishment of 4 reserves/accounts, a reconciliation of the exiting reserve activity is shown in Appendix H, and an overview of opening balances for the new reserves/accounts is shown in Appendices B8, C8, D8, and E8.
- Interest. Offsite levy reserves/accounts (both actual and forecast) are impacted by interest. Actual reserve inflows, and forecast reserve balances that are in a positive

position earn interest (as required by the MGA). Actual reserve outflows, and forecast reserve balances that are in a negative position are charged interest (negative forecast balances indicate that front-ending will be required).

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

- 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 infrastructure.

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

  At end 2015, City documentation reflected a front-ending balance of $0.00. However, City documentation did not include development's share of historical expenditures or debenture interest accruals. In actuality, at end-2015 there was approximately $6.94 million (water: $4,134,801 + sanitary $2,791,869 + Stormwater $16,262) in front-ending debt owed to the City / taxpayers stemming from the City's construction and payment of development's share of historical offsite water, sanitary, and stormwater infrastructure. This front-ending balance is now captured in the City's new offsite levy model so that tax payers will be properly reimbursed as levies and other contributions are collected over time.

  At end 2015 there was approximately $4.07 million in the City's offsite levy reserves. Of this total, $1.51 million (water: $534,950 + sanitary $954,746 + Stormwater $16,262) should be withdrawn immediately and transferred to the City 's General Revenue account, thereby paying down a portion of developer debts owed to the Town[2]. After doing so, the result will be a front-ending balance of approximately $5.44 million[3] (water: $3,599,851 + sanitary $1,837,122) owed to the City as at end-2015. Concurrently, $300,632 should be transferred from the City's General Revenue account to the Transportation Offsite Levy Reserve as a "top-up" stemming from over allocations in the past.

  A complete reconciliation of reserve balances for each of the 4 reserves/accounts the City needs to maintain is provided in Appendices B8, C8, D8, and E8.

[2] Though there are additional funds available in the transportation and stormwater reserves, the MGA does not permit those funds to be used to pay down debt associated with water and sanitary infrastructure.

[3] In determining offsite levy reserve balances, the offsite levy model always assumes that positive reserve balances are utilized to draw down front-ending debts because it is in the developer's interest to do so (interest charge rates on debts are higher than interest earning rates on funds held in the account).

5 RATES

5.1 Weighted Averages and Actual Rates

For future development to pay for its share of the $499.63 million infrastructure costs, developer levy rates range from $86,635 to $152,889 per net hectare (depending on location), with the weighted average offsite levy rate being $137,144 per net hectare, as shown in tables below. A comparison of rates to other municipalities is outlined in Appendix G. Most importantly, these rates reflect the actual cost of infrastructure required to facilitate development in the City.

High, Low, and Weighted Average

	Transportation Charges (per net Ha)	Water Charges (per net Ha)	Sanitary Charges (per net Ha)	Storm Charges (per net Ha)	Total
High	$ 25,831	$ 34,918	$ 88,095	$ 9,554	$ 152,889
Low	$ 25,831	$ 5,200	$ 43,320	$ -	$ 86,635
Weighted Average	$ 25,831	$ 23,933	$ 82,546	$ 4,835	$ 137,144

*Weighted averages are shown above are for information purposes only. Developers pay the offsite levy rate specific to their offsite levy area, as shown in the table below.

Summary of Offsite Levies by Area

Area Ref. #	Transportation Charges	Water Charges	Sanitary Charges	Storm Charges	Total
1	$ 25,831	$ 17,281	$ 88,095	$ -	$ 131,207
2	$ 25,831	$ 34,918	$ 88,095	$ 4,045	$ 152,889
3	$ 25,831	$ 27,128	$ 43,320	$ -	$ 96,279
4	$ 25,831	$ 17,281	$ 88,095	$ -	$ 131,207
5	$ 25,831	$ 17,281	$ 55,604	$ -	$ 98,717
6	$ 25,831	$ 17,281	$ 55,604	$ 4,045	$ 102,762
7	$ 25,831	$ 5,200	$ 55,604	$ 4,045	$ 90,681
8	$ 25,831	$ 5,200	$ 55,604	$ -	$ 86,635
9	$ 25,831	$ 5,200	$ 55,604	$ 4,045	$ 90,681
10	$ 25,831	$ 5,200	$ 55,604	$ -	$ 86,635
11	$ 25,831	$ 5,200	$ 81,788	$ 4,045	$ 116,864
12	$ 25,831	$ 5,200	$ 81,788	$ -	$ 112,819
17	$ 25,831	$ 24,462	$ 81,788	$ 9,554	$ 141,634
18	$ 25,831	$ 24,532	$ 81,788	$ -	$ 132,151
19	$ 25,831	$ 24,532	$ 81,788	$ -	$ 132,151
20	$ 25,831	$ 24,532	$ 81,788	$ 4,045	$ 136,196
21	$ 25,831	$ 24,532	$ 81,788	$ 9,554	$ 141,705

5.2 Rate Transition Plan

The offsite levy rates shown in the previous table represent and full and equitable allocation

of cost to lands that benefit. These new rates also represent a significant increase from current rates which are $76,242 per ha. (+$0,000 adjusted for inflation). Stated another way, current tax payers are subsidizing development in Cold Lake an average of approximately $61,000 for every hectare that is developed.

In order to ensure financial sustainability of the municipality Cold Lake needs to move toward a rate regime in which growth pays for growth. That said, to reduce the impact of rate increases, the City may wish to consider a 4-year transition strategy as follows:

- Year 1 – full cost rates* less 25%
- Year 2 – full cost rate* less 15%
- Year 3 – full cost rates* less 10%
- Year 4 – full cost rates*

*Full cost rates will be amended each year during the City's annual rate update.

5.3 Impact on Rates if City Removes RUSC Projects

For comparative purposes, City staff identified RUSC projects as shown in Appendices B1, C1, D1, and E1. If the City chooses to remove these RUSC projects from the offsite levy bylaw, total offsite infrastructure costs would be reduced from approximately $499.63 million to approximately $409.45 million. As a result, the weighted average offsite levy rate would decrease from $137,144 per net hectare to $107,340 per net hectare, as shown in tables below.

High, Low, and Weighted Average (Not Including RUSC Projects)

	Transportation Charges (per net Ha)	Water Charges (per net Ha)	Sanitary Charges (per net Ha)	Storm Charges (per net Ha)	Total
High	$ 25,831	$ 34,617	$ 59,455	$ 9,554	$ 123,948
Low	$ 25,831	$ 4,956	$ 7,937	$ -	$ 52,857
Weighted Average	$ 25,831	$ 23,653	$ 53,022	$ 4,835	$ 107,340

*Weighted averages are shown above are for information purposes only. Developers pay the offsite levy rate specific to their offsite levy area, as shown in the table below.

Summary of Offsite Levies by Area (Not Including RUSC Projects)

Area Ref. #	Transportation Charges	Water Charges	Sanitary Charges	Storm Charges	Total
1	$ 25,831	$ 17,014	$ 59,455	$ -	$ 102,299
2	$ 25,831	$ 34,617	$ 59,455	$ 4,045	$ 123,948
3	$ 25,831	$ 26,842	$ 7,937	$ -	$ 60,609
4	$ 25,831	$ 17,014	$ 59,455	$ -	$ 102,299
5	$ 25,831	$ 17,014	$ 22,071	$ -	$ 64,915
6	$ 25,831	$ 17,014	$ 22,071	$ 4,045	$ 68,961
7	$ 25,831	$ 4,956	$ 22,071	$ 4,045	$ 56,903
8	$ 25,831	$ 4,956	$ 22,071	$ -	$ 52,857
9	$ 25,831	$ 4,956	$ 22,071	$ 4,045	$ 56,903
10	$ 25,831	$ 4,956	$ 22,071	$ -	$ 52,857
11	$ 25,831	$ 4,956	$ 52,126	$ 4,045	$ 86,957
12	$ 25,831	$ 4,956	$ 52,126	$ -	$ 82,912
17	$ 25,831	$ 24,181	$ 52,126	$ 9,554	$ 111,691
18	$ 25,831	$ 24,251	$ 52,126	$ -	$ 102,207
19	$ 25,831	$ 24,251	$ 52,126	$ -	$ 102,207
20	$ 25,831	$ 24,251	$ 52,126	$ 4,045	$ 106,252
21	$ 25,831	$ 24,251	$ 52,126	$ 9,554	$ 111,761

6 RECOMMENDATIONS

CORVUS recommends the following:

1. Determine if the City will include RUSC projects in the offsite levy bylaw and implement the offsite levy rates in Section 5 accordingly. Determine if the rate transition plan outlined in Section 5 is necessary/desired.
2. Ensure the offsite levy bylaw reflects the requirement for an annual update of offsite levy rates and delivery of an annual update report to Council. In addition to enabling compliance with MGA requirements, regular updates ensure offsite levy rates do not "decay", and Council is apprised regularly of the status of changes, reserves balances, etc.
3. Establish 4 separate offsite levy reserves/accounts as required by the MGA—one for each infrastructure type (i.e., transportation, water, sanitary, and stormwater), with opening balances as reflected in Appendices B8, C8, D8, and E8; this includes a withdrawal of $534,950.16 from the water reserve, $954,746.15 from the sanitary reserve, and $16,262,16 from the stormwater reserve into general revenues to reduce debts owed by development to the City for associated front-ending. This also includes a transfer / "top-up" of $300,632.40 from the City's general revenues to the transportation reserve for associated historical over-withdrawals.
4. Establish sub-ledgers for each reserve/account to track amounts owed to front-ending parties.

5. Update offsite levy reserve/account balances annually (and financial statements, and other internal documentation) to reflect the "true" balance, including front-ending.
6. During the reconciliation of future reserve balances, the interest earning and charge rates that underpin the offsite levy bylaw for that time period should be used to determine reserve interest impacts. This is outlined in the offsite levy model user guide and instructions for the annual rate update.
7. Develop an offsite levy policy framework to aide in effective implementation of the bylaw.
8. Undertake a water and sewer utility rates study to enable sustainable funding of the City's share of offsite infrastructure projects. Current utility rates should be brought current and in alignment with current master plans and offsite levy financing summarized in this report, etc.
9. Implement a long term financial sustainability assessment model that provides Council with confidence that the City is on a financially sustainable path, contains reasonable tax impacts, and includes the impact of the City's share of various development costs plus any front-ending that will be required on behalf of various offsite levy reserves.
10. Recent changes to the MGA will enable municipalities to charge separately for offsite levies (i.e., transportation vs. water vs. sewer vs stormwater). Accordingly, the City should maintain accurate records to reflect which properties pay which offsite levies, and build this into the City's administrative procedures.

7 ACKNOWLEDGEMENTS

CORVUS Business Advisors would like to thank all City of Cold Lake staff and advisors from Engineering, Planning, and Finance, who supported the work of this review.

8 DISCLAIMER

CORVUS Business Advisor has relied upon City of Cold Lake to provide all of 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, 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 (usually annually). When information changes, it will be reflected in a future update, and rates adjusted accordingly.

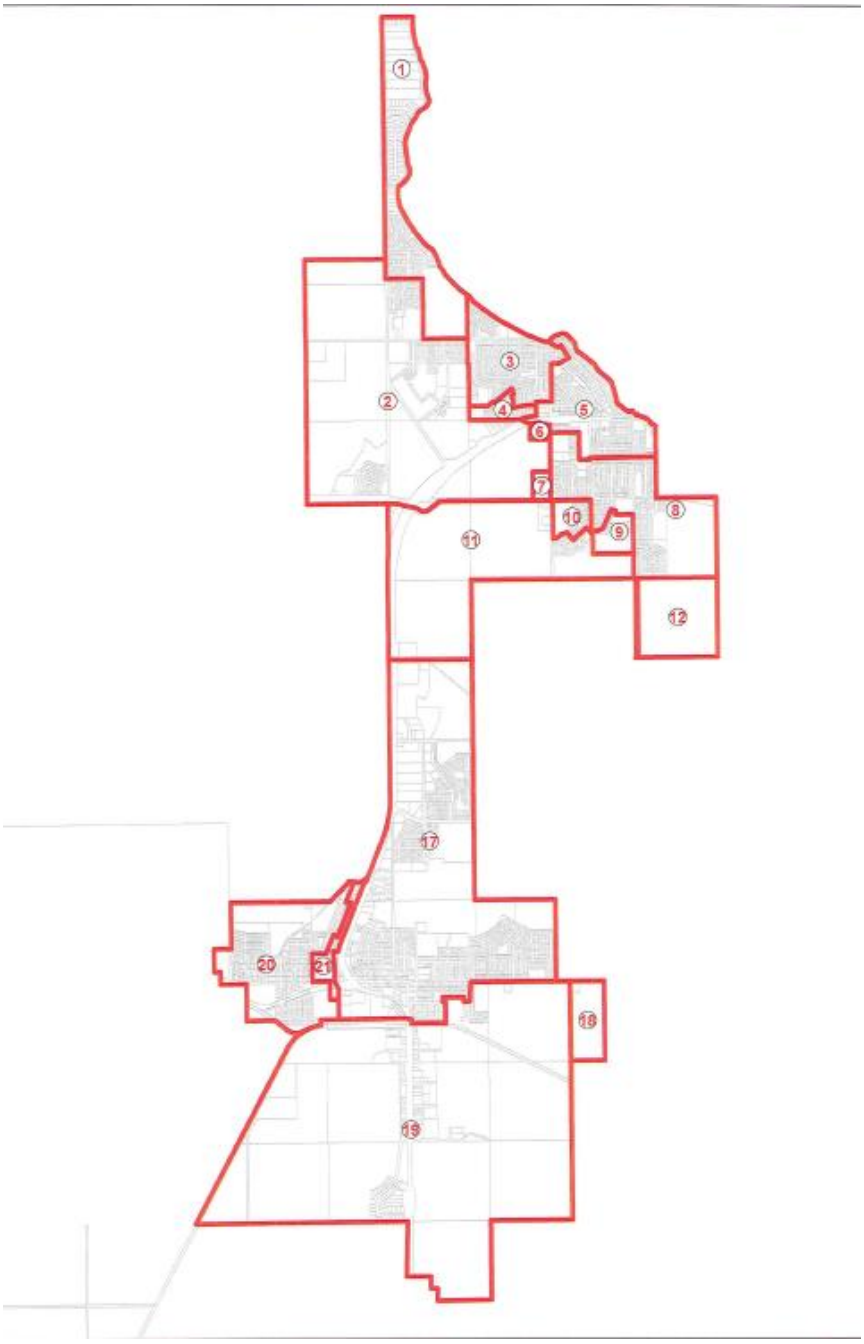
APPENDIX A: OFFSITE LEVY AREAS AND STAGING

A1. Offsite Levy Areas

In order to equitably facilitate the allocation of infrastructure to benefiting lands, the City is parsed into 17 offsite levy areas[4], as shown in the map below. These areas are generally about a quarter section in size but also take into consideration existing/planned infrastructure basins (i.e., transportation, water, sanitary, and stormwater 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.

[4] The City's offsite levy areas within its boundaries are numbered 1-12 and 17-21. Additional areas 13-16 and 22-24 within potential growth in the MD were utilized for analyses purposes only. These additional areas are not included in this report or bylaw.

Offsite Levy Areas



Total net development area, the amount of land available for development across all offsite levy areas, is approximately 940 net ha. In calculating net development area only those lands remaining to be developed within the area 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	Horseshoe Bay Estates- full build out	Commercial	-	-	-	-	-	-
1.2	Horseshoe Bay Estates- full build out	Industrial	-	-	-	-	-	-
1.3	Horseshoe Bay Estates- full build out	Residential - Low Density	-	-	-	-	-	-
1.4	Horseshoe Bay Estates- full build out	Residential - Medium and High	-	-	-	-	-	-
2.1	Northshore, Lakewood Estates, Area North Tn	Commercial	31.19	-	31.19	3.12	-	28.07
2.2	Northshore, Lakewood Estates, Area North Tn	Industrial	50.92	-	50.92	5.09	-	45.83
2.3	Northshore, Lakewood Estates, Area North Tn	Residential - Low Density	147.30		147.30	14.73	-	132.57
2.4	Northshore, Lakewood Estates, Area North Tn	Residential - Medium and High	27.76	-	27.76	2.78	-	24.98
3.1	Area Between East 16th Street to 22 Street So	Commercial	-	-	-	-	-	-
3.2	Area Between East 16th Street to 22 Street So	Industrial	-	-	-	-	-	-
3.3	Area Between East 16th Street to 22 Street So	Residential - Low Density	-	-	-	-	-	-
3.4	Area Between East 16th Street to 22 Street So	Residential - Medium and High	-	-	-	-	-	-
4.1	Robin, Sparrow, Grouse, Pheasant- Area- full b	Commercial	-	-	-	-	-	-
4.2	Robin, Sparrow, Grouse, Pheasant- Area- full b	Industrial	-	-	-	-	-	-
4.3	Robin, Sparrow, Grouse, Pheasant- Area- full b	Residential - Low Density	-	-	-	-	-	-
4.4	Robin, Sparrow, Grouse, Pheasant- Area- full b	Residential - Medium and High	-	-	-	-	-	-
5.1	Lakeshore Redevelopment Area- full build out c	Commercial	-	-	-	-	-	-
5.2	Lakeshore Redevelopment Area- full build out c	Industrial	-	-	-	-	-	-
5.3	Lakeshore Redevelopment Area- full build out c	Residential - Low Density	-	-	-	-	-	-
5.4	Lakeshore Redevelopment Area- full build out c	Residential - Medium and High	2.89	-	2.89	0.29	-	2.60
6.1	Lot 2, Plan 982 1024-1601-8th Avenue- full buil	Commercial	-	-	-	-	-	-
6.2	Lot 2, Plan 982 1024-1601-8th Avenue- full buil	Industrial	-	-	-	-	-	-
6.3	Lot 2, Plan 982 1024-1601-8th Avenue- full buil	Residential - Low Density	-	-	-	-	-	-
6.4	Lot 2, Plan 982 1024-1601-8th Avenue- full buil	Residential - Medium and High	-	-	-	-	-	-
7.1	City Public Work Shop and Building 5 Area	Commercial	-	-	-	-	-	-
7.2	City Public Work Shop and Building 5 Area	Industrial	-	-	-	-	-	-
7.3	City Public Work Shop and Building 5 Area	Residential - Low Density	-	-	-	-	-	-
7.4	City Public Work Shop and Building 5 Area	Residential - Medium and High	-	-	-	-	-	-
8.1	Lefebvre and Uplands- Upper Section next to 1	Commercial	-		-	-	-	-
8.2	Lefebvre and Uplands- Upper Section next to 1	Industrial	-		-	-	-	-
8.3	Lefebvre and Uplands- Upper Section next to 1	Residential - Low Density	9.86		9.86	0.99	-	8.87
8.4	Lefebvre and Uplands- Upper Section next to 1	Residential - Medium and High	3.39		3.39	0.34	-	3.05
9.1	Lefebvre - west 8th Street- sanitary to building	Commercial	-	-	-	-	-	-
9.2	Lefebvre - west 8th Street- sanitary to building	Industrial	-	-	-	-	-	-
9.3	Lefebvre - west 8th Street- sanitary to building	Residential - Low Density	3.90	-	3.90	0.39	-	3.51
9.4	Lefebvre - west 8th Street- sanitary to building	Residential - Medium and High	3.80	-	3.80	0.38	-	3.42
10.1	Aspen Ridge-full build out	Commercial	-	-	-	-	-	-
10.2	Aspen Ridge-full build out	Industrial	-	-	-	-	-	-
10.3	Aspen Ridge-full build out	Residential - Low Density	-	-	-	-	-	-
10.4	Aspen Ridge-full build out	Residential - Medium and High	-	-	-	-	-	-
11.1	Imperial Park, Greenwood and Lefebvre -South	Commercial	-	-	-	-	-	-
11.2	Imperial Park, Greenwood and Lefebvre -South	Industrial	-	-	-	-	-	-
11.3	Imperial Park, Greenwood and Lefebvre -South	Residential - Low Density	78.21	4.78	73.43	7.34	-	66.09
11.4	Imperial Park, Greenwood and Lefebvre -South	Residential - Medium and High	1.85	-	1.85	0.19	-	1.67
12.1	Uplands- bottom portion	Commercial	-	-	-	-	-	-
12.2	Uplands- bottom portion	Industrial	-	-	-	-	-	-
12.3	Uplands- bottom portion	Residential - Low Density	61.85	-	61.85	6.19	-	55.67
12.4	Uplands- bottom portion	Residential - Medium and High	7.21	-	7.21	0.72	-	6.49
17.1	Cold Lake Central	Commercial	14.02	-	14.02	1.40	-	12.62
17.2	Cold Lake Central	Industrial	0.50	-	0.50	0.05	-	0.45
17.3	Cold Lake Central	Residential - Low Density	79.28	1.98	77.30	7.73	-	69.57
17.4	Cold Lake Central	Residential - Medium and High	20.84	-	20.84	2.08	-	18.76
18.1	South-50th Avenue- East 38 Street	Commercial	-	-	-	-	-	-
18.2	South-50th Avenue- East 38 Street	Industrial	-	-	-	-	-	-
18.3	South-50th Avenue- East 38 Street	Residential - Low Density	26.45	-	26.45	2.65	-	23.81
18.4	South-50th Avenue- East 38 Street	Residential - Medium and High	-	-	-	-	-	-
19.1	Southeast ASP, Fischer Estates, Iron Horse, C	Commercial	29.33	-	29.33	2.93	-	26.40
19.2	Southeast ASP, Fischer Estates, Iron Horse, C	Industrial	156.81	-	156.81	15.68	-	141.13
19.3	Southeast ASP, Fischer Estates, Iron Horse, C	Residential - Low Density	246.61	39.23	207.38	20.74	-	186.64
19.4	Southeast ASP, Fischer Estates, Iron Horse, C	Residential - Medium and High	65.16	-	65.16	6.52	-	58.64
20.1	West End- full build out except- North of 54 Av	Commercial	-	-	-	-	-	-
20.2	West End- full build out except- North of 54 Av	Industrial	-	-	-	-	-	-
20.3	West End- full build out except- North of 54 Av	Residential - Low Density	21.81		21.81	2.18	-	19.63
20.4	West End- full build out except- North of 54 Av	Residential - Medium and High	-	-	-	-	-	-
21.1	School and Commercial on westside of 55 St-	Commercial	-	-	-	-	-	-
21.2	School and Commercial on westside of 55 St-	Industrial	-	-	-	-	-	-
21.3	School and Commercial on westside of 55 St-	Residential - Low Density	-	-	-	-	-	-
21.4	School and Commercial on westside of 55 St-	Residential - Medium and High	-	-	-	-	-	-
		Total In Boundary	**1,090.94**	**45.99**	**1,044.95**	**104.50**	**-**	**940.46**

Summary of Offsite Levy Net Development Area

Description	ha.
Gross Development Area	1,090.94
Less Environment Reserve	45.99
Less Municipal Reserve	104.50
Less ROW Allowance	-
Net Development Area	940.46

*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 City of Cold Lake. 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. This planning period is used by many municipalities as it provides a reasonable time frame 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 940 net ha. of development area available across all offsite levy development areas, planners estimate that approximately 319 ha. (34%) of this land will develop during the next 25-years (the rate planning period) as shown in the tables below.

Anticipated Development During the 25-year Rate Planning Period

Area Ref. #	Area Developed in Next 25 years	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
1.1	-																									
1.2	-																									
1.3	-																									
1.4	-																									
2.1	3.320		2.12		1.20																					
2.2	35.290		4.08	4.08	4.08	4.84	0.76	2.15	0.76		1.95		2.69					1.88	1.88	1.88			2.13	2.13		
2.3	42.540	0.66	1.60	1.60	2.14	1.48	0.76	1.47	1.69	2.75	2.75	1.82	1.80	0.74	0.74	0.74				1.44	1.44	1.44	3.35	3.19	4.47	4.47
2.4	11.540			1.20	1.20	2.11	1.20		0.69		0.96							0.83	0.83					0.84	0.84	0.84
3.1	-																									
3.2	-																									
3.3	-																									
3.4	-																									
4.1	-																									
4.2	-																									
4.3	-																									
4.4	-																									
5.1	-																									
5.2	-																									
5.3	-																									
5.4	2.600							2.60																		
6.1	-																									
6.2	-																									
6.3	-																									
6.4	-																									
7.1	-																									
7.2	-																									
7.3	-																									
7.4	-																									
8.1	-																									
8.2	-																									
8.3	7.170												1.11	1.11	2.50	1.11	1.34									
8.4	-																									
9.1	-																									
9.2	-																									
9.3	3.330																						1.37		0.98	0.98
9.4	-																									
10.1	-																									
10.2	-																									
10.3	-																									
10.4	-																									

Area Ref. #	Area Developed in Next 25 years	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
11.1	-																									
11.2	-																									
11.3	46.200										1.04	1.04	1.04	2.80	1.76	2.56	2.56	1.60	3.30	3.42	5.11	5.23	5.22	4.30	2.61	2.61
11.4	1.665																						1.67			
12.1	-																									
12.2	-																									
12.3	-																									
12.4	-																									
17.1	9.760	1.98	2.35	2.35			1.54	1.54																		
17.2	-																									
17.3	69.560		1.83	1.83	1.83	1.83	1.83	2.30	2.30	2.30	2.30	2.30	4.45	4.45	4.45	4.45	4.45	3.68	3.68	3.68	3.68	3.68	2.61	2.61	2.61	0.43
17.4	12.780		1.18	1.18		1.31	1.31					1.29	2.53	1.24							1.37	1.37				
18.1	-																									
18.2	-																									
18.3	-																									
18.4	-																									
19.1	24.740			2.65	2.65	4.40	4.40	1.75	3.94	3.57	1.38															
19.2	2.440																		2.44							
19.3	17.120	0.78	0.78	1.56	1.56	1.56	1.56	0.78	1.75	0.97	1.94	1.94	0.97	0.97												
19.4	9.120		1.73	2.89	0.80			1.85	1.85																	
20.1	-																									
20.2	-																									
20.3	19.625		0.80	0.80	0.80	0.80		1.19							0.82	0.82	1.65	1.65	0.82	1.71	0.88	1.76	3.34	0.88	0.88	0.03
20.4	-																									
21.1	-																									
21.2	-																									
21.3	-																									
21.4	-																									
	318.80	**3.42**	**16.47**	**20.14**	**16.26**	**18.33**	**13.36**	**15.63**	**12.98**	**9.59**	**12.32**	**8.39**	**14.59**	**11.31**	**10.27**	**9.68**	**10.00**	**9.64**	**12.95**	**12.13**	**12.48**	**13.48**	**19.69**	**13.95**	**12.39**	**9.36**

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

Developed In Next 25 Years	318.81	33.9%
Developed Beyond 25 Years	621.66	66.1%
Net Development Area	940.47	

APPENDIX B: WATER OFFSITE INFRASTRUCTURE

B1. Water Offsite Infrastructure Costs

In order 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 $100.75 million as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City engineering 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.

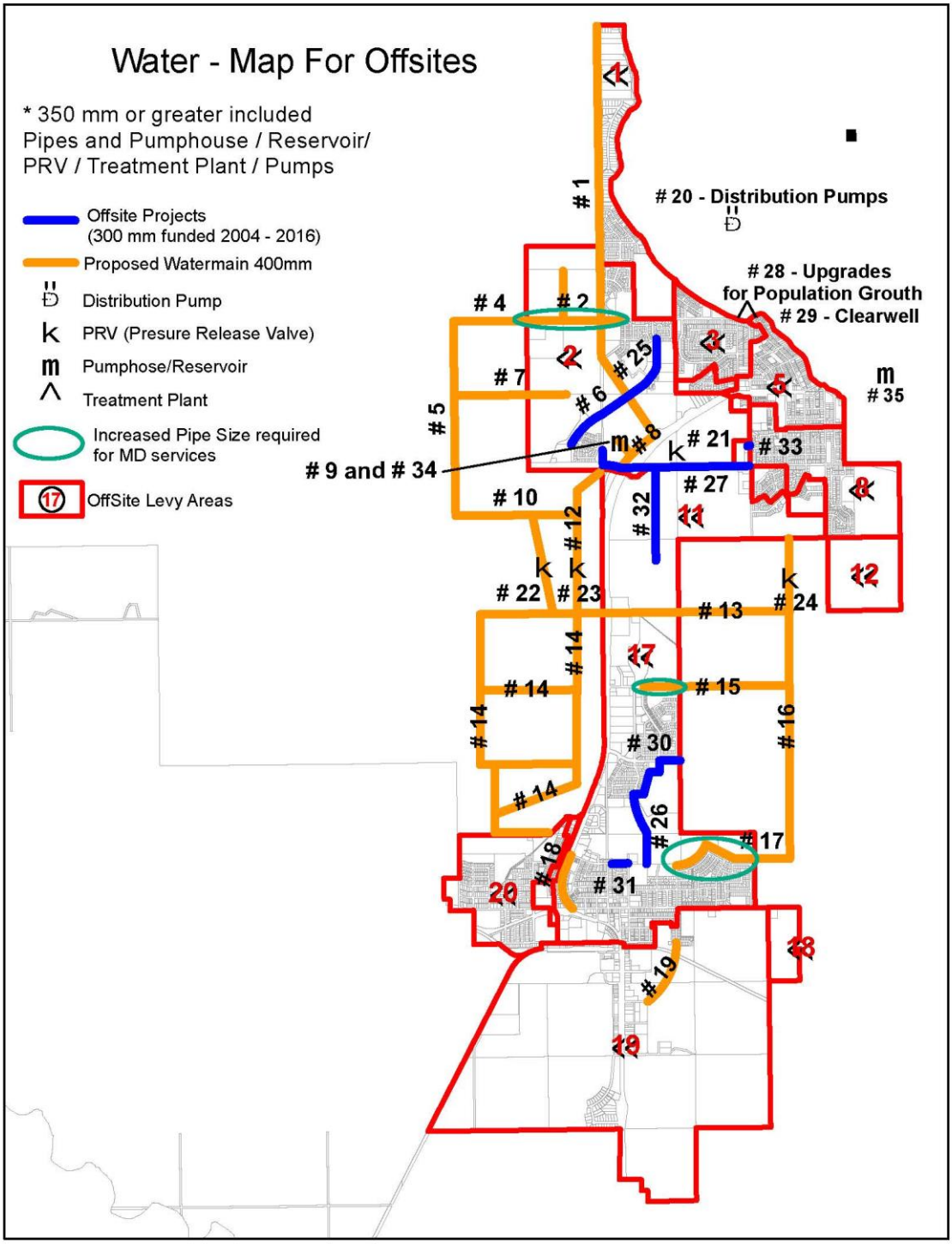
Summary of Water Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	400mm WM- Lake Avenue to 8th Avenue along 28 Street/ English Bay Road	$ -	$ -	$ 7,613,312	$ 7,613,312
2	400mm WM- 26 Street to Edge of Annex Area 24- along 1st Avenue	$ -	$ -	$ 2,408,392	$ 2,408,392
3	400mm WM Lake Ave to 1st Avenue- Area 2	$ -	$ -	$ 1,737,680	$ 1,737,680
4	400mm WM - Runs East/West to 28 Street/ English Bay Road- Area 2*	$ -	$ -	$ 1,310,568	$ 1,310,568
5	400mm WM- Run North/ South-Annex Area 23/24*	$ -	$ -	$ 3,356,808	$ 3,356,808
6	300mm WM-Pelican Rock to Golden Rod Gate-Creekside along 25th Street	$ -	$ -	$ 996,353	$ 996,353
7	400mm WM- Runs East/West- Annex Area 24- to Area 2 Northshore	$ -	$ -	$ 1,992,648	$ 1,992,648
8	400mm WM- 28 Street/ English Bay Road to Reservoir/ Pump House in Area 2	$ -	$ -	$ 1,114,064	$ 1,114,064
9	Reservoir/ Pump House - Interim	$ -	$ -	$ 13,587,950	$ 13,587,950
10	400mm WM- Runs East/West- Annex Area 23*	$ -	$ -	$ 2,042,992	$ 2,042,992
11	400mm WM- Runs North/South - West Side Annex Area 23*	$ -	$ -	$ 1,830,248	$ 1,830,248
12	400mm WM- Runs North/South - East Side from Hwy 55 Annex Area 23*	$ -	$ -	$ 2,751,056	$ 2,751,056
13	400mm WM- Runs East/West along 75 Avenue- Annex Area 22 to Annex Area 13/ 14	$ -	$ -	$ 5,492,368	$ 5,492,368
14	400mm WM- within Annex Area 22*	$ -	$ -	$ 11,947,768	$ 11,947,768
15	400mm WM from 47th Street through to Annex Area 15 along 69th Avenue	$ 173,300	$ -	$ 2,593,963	$ 2,767,263
16	400mm WM- Runs North/South from Area 11 to Annex Area 16*	$ -	$ -	$ 5,753,832	$ 5,753,832
17	400mm WM from 45 Street to Annex Area 16 along 54 Avenue	$ -	$ -	$ 2,359,672	$ 2,359,672
18	400mm WM from 54 Avenue to 50 Avenue along Hwy 28/ 55 Street	$ -	$ -	$ 1,013,376	$ 1,013,376
19	400mm- 43 Avenue to 45 Street in Area 19	$ -	$ -	$ 774,648	$ 774,648
20	Distribution Pumps Upgrade	$ -	$ -	$ 145,000	$ 145,000
21	Pressure Release Valve-Area 2- new WM from 25 Street to 16 Avenue	$ -	$ -	$ 652,500	$ 652,500
22	Pressure Release Valve-Annex Area 23*	$ -	$ -	$ 725,000	$ 725,000
23	Pressure Release Valve-Annex Area 23*	$ -	$ -	$ 725,000	$ 725,000
24	Pressure Release Valve-Annex Area 13*	$ -	$ -	$ 725,000	$ 725,000
25	300mm 25th Street to 28 Street	$ 238,199	$ -	$ -	$ 238,199
26	300mm from 61 Avenue to 54 Avenue- Meadows	$ 725,669	$ -	$ -	$ 725,669
27	Northshore Line- 16 Street to Creekside along 16 Avenue	$ 440,260	$ -	$ -	$ 440,260
28	Water Treatment Plant Upgrade	$ -	$ -	$ 3,161,000	$ 3,161,000
29	Clear well Expansion*	$ -	$ -	$ 1,450,000	$ 1,450,000
30	61st Avenue- 300mm Waterline	$ 113,018	$ -	$ -	$ 113,018
31	54th Avenue- 51 Street to 49 Street	$ 1,740,147	$ 643,491	$ -	$ 2,383,638
32	Line to Imperial Park	$ 1,108,261	$ -	$ -	$ 1,108,261
33	Bldg 5 Reservoir Improvements	$ 975,118	$ -	$ -	$ 975,118
34	Reservoir/ Pump House- Ultimate	$ -	$ -	$ 9,293,050	$ 9,293,050
35	CLRUSC- Reservoir for Regional Waterline	$ -	$ -	$ 7,041,200	$ 7,041,200
		$ 5,513,971	**$ 643,491**	**$ 94,595,448**	**$ 100,752,911**

*Costs are based on 2015/16 estimates.
**Unless by exception, estimates generally include engineering costs (15%) and contingencies (30%).
***Projects denoted with a "*" are for the benefit of lands beyond boundary and are not factored into rates.
****Projects highlighted in dark 'green' are RUSC projects.

A map showing the location of this infrastructure is shown below.

Location of Water Offsite Infrastructure



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 of Cold Lake has received/will receive approximately $25.90 million in 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 $74.85 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	400mm WM- Lake Avenue to 8th Avenue along 28 Street/ English Bay Road	$ 7,613,312	$ -	$ -	$ 7,613,312
2	400mm WM- 26 Street to Edge of Annex Area 24- along 1st Avenue	$ 2,408,392	$ -	$ -	$ 2,408,392
3	400mm WM Lake Ave to 1st Avenue- Area 2	$ 1,737,680	$ -	$ -	$ 1,737,680
4	400mm WM - Runs East/West to 28 Street/ English Bay Road- Area 2*	$ 1,310,568	$ -	$ -	$ 1,310,568
5	400mm WM- Run North/ South-Annex Area 23/24*	$ 3,356,808	$ -	$ -	$ 3,356,808
6	300mm WM-Pelican Rock to Golden Rod Gate-Creekside along 25th Street	$ 996,353	$ -	$ -	$ 996,353
7	400mm WM- Runs East/West- Annex Area 24- to Area 2 Northshore	$ 1,992,648	$ -	$ -	$ 1,992,648
8	400mm WM- 28 Street/ English Bay Road to Reservoir/ Pump House in Area 2	$ 1,114,064	$ -	$ -	$ 1,114,064
9	Reservoir/ Pump House - Interim	$ 13,587,950	$ 10,190,963	$ -	$ 3,396,988
10	400mm WM- Runs East/West- Annex Area 23*	$ 2,042,992	$ -	$ -	$ 2,042,992
11	400mm WM- Runs North/South - West Side Annex Area 23*	$ 1,830,248	$ -	$ -	$ 1,830,248
12	400mm WM- Runs North/South - East Side from Hwy 55 Annex Area 23*	$ 2,751,056	$ -	$ -	$ 2,751,056
13	400mm WM- Runs East/West along 75 Avenue- Annex Area 22 to Annex Area 13/ 14	$ 5,492,368	$ -	$ -	$ 5,492,368
14	400mm WM- within Annex Area 22*	$ 11,947,768	$ -	$ -	$ 11,947,768
15	400mm WM from 47th Street through to Annex Area 15 along 69th Avenue	$ 2,767,263	$ -	$ -	$ 2,767,263
16	400mm WM- Runs North/South from Area 11 to Annex Area 16*	$ 5,753,832	$ -	$ -	$ 5,753,832
17	400mm WM from 45 Street to Annex Area 16 along 54 Avenue	$ 2,359,672	$ -	$ -	$ 2,359,672
18	400mm WM from 54 Avenue to 50 Avenue along Hwy 28/ 55 Street	$ 1,013,376	$ -	$ -	$ 1,013,376
19	400mm- 43 Avenue to 45 Street in Area 19	$ 774,648	$ -	$ -	$ 774,648
20	Distribution Pumps Upgrade	$ 145,000	$ -	$ -	$ 145,000
21	Pressure Release Valve-Area 2- new WM from 25 Street to 16 Avenue	$ 652,500	$ -	$ -	$ 652,500
22	Pressure Release Valve-Annex Area 23*	$ 725,000	$ -	$ -	$ 725,000
23	Pressure Release Valve-Annex Area 23*	$ 725,000	$ -	$ -	$ 725,000
24	Pressure Release Valve-Annex Area 13*	$ 725,000	$ -	$ -	$ 725,000
25	300mm 25th Street to 28 Street	$ 238,199	$ -	$ -	$ 238,199
26	300mm from 61 Avenue to 54 Avenue- Meadows	$ 725,669	$ -	$ -	$ 725,669
27	Northshore Line- 16 Street to Creekside along 16 Avenue	$ 440,260	$ -	$ -	$ 440,260
28	Water Treatment Plant Upgrade	$ 3,161,000	$ 2,370,750	$ -	$ 790,250
29	Clear well Expansion*	$ 1,450,000	$ 1,087,500	$ -	$ 362,500
30	61st Avenue- 300mm Waterline	$ 113,018	$ -	$ -	$ 113,018
31	54th Avenue- 51 Street to 49 Street	$ 2,383,638	$ -	$ -	$ 2,383,638
32	Line to Imperial Park	$ 1,108,261	$ -	$ -	$ 1,108,261
33	Bldg 5 Reservoir Improvements	$ 975,118	$ -	$ -	$ 975,118
34	Reservoir/ Pump House- Ultimate	$ 9,293,050	$ 6,969,788	$ -	$ 2,323,263
35	CLRUSC- Reservoir for Regional Waterline	$ 7,041,200	$ 5,280,900	$ -	$ 1,760,300
		$ 100,752,911	**$ 25,899,900**	**$ -**	**$ 74,853,011**

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 City's annual rate/bylaw updates.

Water Infrastructure Staging

Item	Project Description	Construction Start Year
1	400mm WM- Lake Avenue to 8th Avenue along 28 Street/ English Bay Road	2024
2	400mm WM- 26 Street to Edge of Annex Area 24- along 1st Avenue	2022
3	400mm WM Lake Ave to 1st Avenue- Area 2	2041
4	400mm WM - Runs East/West to 28 Street/ English Bay Road- Area 2*	2027
5	400mm WM- Run North/ South-Annex Area 23/24*	2027
6	300mm WM-Pelican Rock to Golden Rod Gate-Creekside along 25th Street	2019
7	400mm WM- Runs East/West- Annex Area 24- to Area 2 Northshore	2032
8	400mm WM- 28 Street/ English Bay Road to Reservoir/ Pump House in Area 2	2025
9	Reservoir/ Pump House - Interim	2025
10	400mm WM- Runs East/West- Annex Area 23*	2032
11	400mm WM- Runs North/South - West Side Annex Area 23*	2041
12	400mm WM- Runs North/South - East Side from Hwy 55 Annex Area 23*	2022
13	400mm WM- Runs East/West along 75 Avenue- Annex Area 22 to Annex Area 13/ 14	2027
14	400mm WM- within Annex Area 22*	2041
15	400mm WM from 47th Street through to Annex Area 15 along 69th Avenue	2015
16	400mm WM- Runs North/South from Area 11 to Annex Area 16*	2041
17	400mm WM from 45 Street to Annex Area 16 along 54 Avenue	2017
18	400mm WM from 54 Avenue to 50 Avenue along Hwy 28/ 55 Street	2016
19	400mm- 43 Avenue to 45 Street in Area 19	2022
20	Distribution Pumps Upgrade	2041
21	Pressure Release Valve-Area 2- new WM from 25 Street to 16 Avenue	2041
22	Pressure Release Valve-Annex Area 23*	2041
23	Pressure Release Valve-Annex Area 23*	2022
24	Pressure Release Valve-Annex Area 13*	2041
25	300mm 25th Street to 28 Street	2011
26	300mm from 61 Avenue to 54 Avenue- Meadows	2007
27	Northshore Line- 16 Street to Creekside along 16 Avenue	2010
28	Water Treatment Plant Upgrade	2023
29	Clear well Expansion*	2023
30	61st Avenue- 300mm Waterline	2015
31	54th Avenue- 51 Street to 49 Street	2006
32	Line to Imperial Park	2008
33	Bldg 5 Reservoir Improvements	2010
34	Reservoir/ Pump House- Ultimate	2039
35	CLRUSC- Reservoir for Regional Waterline	2017

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

B4. Water Offsite Infrastructure Benefiting Parties

The water offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Cold Lake – a portion of the water infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing – other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial oversizing").
- City of Cold Lake Future Development – all growth related infrastructure (i.e., levyable 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. Project allocations were determined by City engineering staff as outlined in Appendix F.

Allocation of Water Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	400mm WM- Lake Avenue to 8th Avenue along 28 Street/ English Bay Road	$ 7,613,312	33.5%	55.3%	11.2%
2	400mm WM- 26 Street to Edge of Annex Area 24- along 1st Avenue	$ 2,408,392	52.0%	29.0%	19.0%
3	400mm WM Lake Ave to 1st Avenue- Area 2	$ 1,737,680	67.0%	33.0%	0.0%
4	400mm WM - Runs East/West to 28 Street/ English Bay Road- Area 2*	$ 1,310,568		100.0%	0.0%
5	400mm WM- Run North/ South-Annex Area 23/24*	$ 3,356,808		100.0%	0.0%
6	300mm WM-Pelican Rock to Golden Rod Gate-Creekside along 25th Street	$ 996,353		12.0%	88.0%
7	400mm WM- Runs East/West- Annex Area 24- to Area 2 Northshore	$ 1,992,648	22.0%	73.7%	4.3%
8	400mm WM- 28 Street/ English Bay Road to Reservoir/ Pump House in Area 2	$ 1,114,064	33.0%	54.2%	12.8%
9	Reservoir/ Pump House - Interim	$ 3,396,988	63.0%	13.3%	23.7%
10	400mm WM- Runs East/West- Annex Area 23*	$ 2,042,992		100.0%	0.0%
11	400mm WM- Runs North/South - West Side Annex Area 23*	$ 1,830,248		100.0%	0.0%
12	400mm WM- Runs North/South - East Side from Hwy 55 Annex Area 23*	$ 2,751,056		100.0%	0.0%
13	400mm WM- Runs East/West along 75 Avenue- Annex Area 22 to Annex Area 13/ 14	$ 5,492,368	14.0%	80.4%	5.6%
14	400mm WM- within Annex Area 22*	$ 11,947,768		100.0%	0.0%
15	400mm WM from 47th Street through to Annex Area 15 along 69th Avenue	$ 2,767,263	10.0%	83.0%	7.0%
16	400mm WM- Runs North/South from Area 11 to Annex Area 16*	$ 5,753,832		100.0%	0.0%
17	400mm WM from 45 Street to Annex Area 16 along 54 Avenue	$ 2,359,672	33.0%	45.9%	21.1%
18	400mm WM from 54 Avenue to 50 Avenue along Hwy 28/ 55 Street	$ 1,013,376	60.0%	0.0%	40.0%
19	400mm- 43 Avenue to 45 Street in Area 19	$ 774,648	60.0%	9.6%	30.4%
20	Distribution Pumps Upgrade	$ 145,000	31.5%	68.5%	0.0%
21	Pressure Release Valve-Area 2- new WM from 25 Street to 16 Avenue	$ 652,500	66.0%	34.0%	0.0%
22	Pressure Release Valve-Annex Area 23*	$ 725,000		100.0%	0.0%
23	Pressure Release Valve-Annex Area 23*	$ 725,000		100.0%	0.0%
24	Pressure Release Valve-Annex Area 13*	$ 725,000		100.0%	0.0%
25	300mm 25th Street to 28 Street	$ 238,199		0.0%	100.0%
26	300mm from 61 Avenue to 54 Avenue- Meadows	$ 725,669	57.0%	0.0%	43.0%
27	Northshore Line- 16 Street to Creekside along 16 Avenue	$ 440,260		0.0%	100.0%
28	Water Treatment Plant Upgrade	$ 790,250	28.0%	60.5%	11.5%
29	Clear well Expansion*	$ 362,500		100.0%	0.0%
30	61st Avenue- 300mm Waterline	$ 113,018		0.0%	100.0%
31	54th Avenue- 51 Street to 49 Street	$ 2,383,638		0.0%	100.0%
32	Line to Imperial Park	$ 1,108,261		0.0%	100.0%
33	Bldg 5 Reservoir Improvements	$ 975,118		0.0%	100.0%
34	Reservoir/ Pump House- Ultimate	$ 2,323,263		100.0%	0.0%
35	CLRUSC- Reservoir for Regional Waterline	$ 1,760,300		100.0%	0.0%
		$ 74,853,011			

*Allocations to lands beyond boundary include: Project #1-50%, Project #2-23%, Project #4-100%, Project #5-100%, Project #7-66%, Project #8-47%, Project #10-100%, Project #11-100%, Project #12-100%, Project #13-76%, Project #14-100%, Project #15-83%, Project #16-100%, Project #17-45%, Project #20-50%, Project #22-100%, Project #23-100%, Project #24-100%, Project #28-56%, Project #29-100%, Project #34-100%, Project #35-100%.

**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.

***Allocations to lands beyond boundary and/or financial oversizing which totals 100% reflect projects with no impact to offsite levy rates for development within the City's current boundary.

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 $10.52 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 $1.80 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately $8.73 million.

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

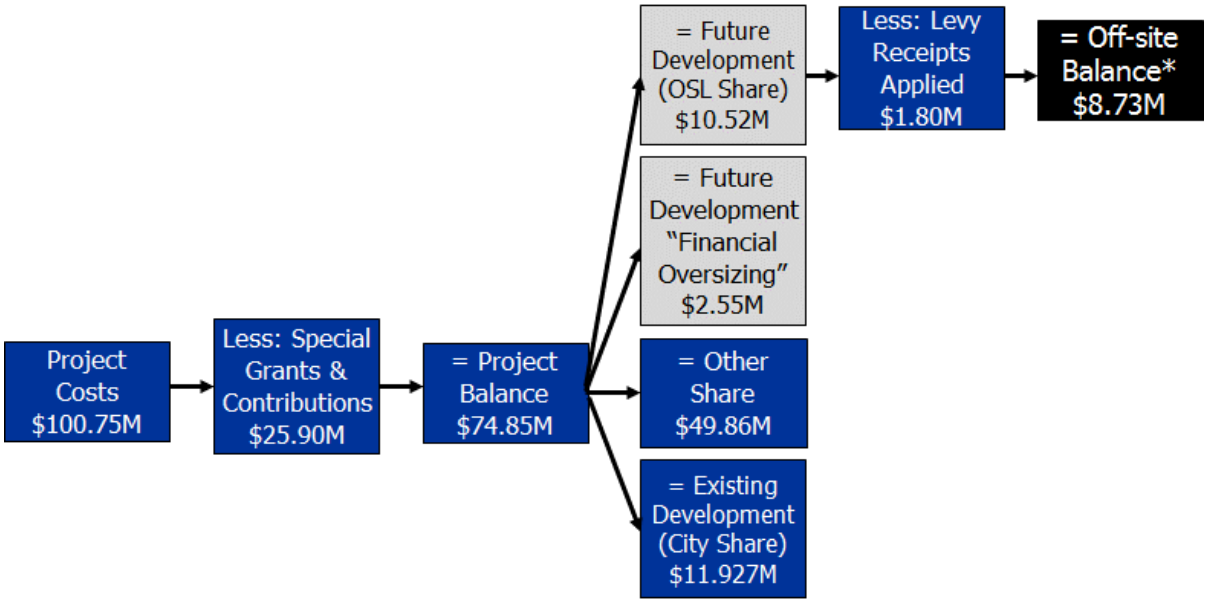
Item	Project Description	Developer Cost (Leviable Costs)	Offsite Levy Funds Collected to Dec 31, 2015	Offsite Levy Funds Collected Starting Jan 1, 2016	Adjusted Developer (Levy) Cost
1	400mm WM- Lake Avenue to 8th Avenue along 28 Street/ English Bay Road	$ 854,214	$ 49,527	$ -	$ 804,687
2	400mm WM- 26 Street to Edge of Annex Area 24- along 1st Avenue	$ 457,594	$ 26,531	$ -	$ 431,063
3	400mm WM Lake Ave to 1st Avenue- Area 2	$ -	$ -	$ -	$ -
4	400mm WM - Runs East/West to 28 Street/ English Bay Road- Area 2*	$ -	$ -	$ -	$ -
5	400mm WM- Run North/ South-Annex Area 23/24*	$ -	$ -	$ -	$ -
6	300mm WM-Pelican Rock to Golden Rod Gate-Creekside along 25th Street	$ 876,791	$ 50,836	$ -	$ 825,955
7	400mm WM- Runs East/West- Annex Area 24- to Area 2 Northshore	$ 86,082	$ 4,991	$ -	$ 81,091
8	400mm WM- 28 Street/ English Bay Road to Reservoir/ Pump House in Area 2	$ 142,600	$ 8,268	$ -	$ 134,332
9	Reservoir/ Pump House - Interim	$ 804,407	$ 46,639	$ -	$ 757,767
10	400mm WM- Runs East/West- Annex Area 23*	$ -	$ -	$ -	$ -
11	400mm WM- Runs North/South - West Side Annex Area 23*	$ -	$ -	$ -	$ -
12	400mm WM- Runs North/South - East Side from Hwy 55 Annex Area 23*	$ -	$ -	$ -	$ -
13	400mm WM- Runs East/West along 75 Avenue- Annex Area 22 to Annex Area 13/ 14	$ 307,573	$ 17,833	$ -	$ 289,740
14	400mm WM- within Annex Area 22*	$ -	$ -	$ -	$ -
15	400mm WM from 47th Street through to Annex Area 15 along 69th Avenue	$ 193,708	$ 150,000	$ -	$ 43,708
16	400mm WM- Runs North/South from Area 11 to Annex Area 16*	$ -	$ -	$ -	$ -
17	400mm WM from 45 Street to Annex Area 16 along 54 Avenue	$ 498,363	$ 28,895	$ -	$ 469,468
18	400mm WM from 54 Avenue to 50 Avenue along Hwy 28/ 55 Street	$ 405,350	$ 23,502	$ -	$ 381,848
19	400mm- 43 Avenue to 45 Street in Area 19	$ 235,493	$ 13,654	$ -	$ 221,839
20	Distribution Pumps Upgrade	$ -	$ -	$ -	$ -
21	Pressure Release Valve-Area 2- new WM from 25 Street to 16 Avenue	$ -	$ -	$ -	$ -
22	Pressure Release Valve-Annex Area 23*	$ -	$ -	$ -	$ -
23	Pressure Release Valve-Annex Area 23*	$ -	$ -	$ -	$ -
24	Pressure Release Valve-Annex Area 13*	$ -	$ -	$ -	$ -
25	300mm 25th Street to 28 Street	$ 238,199	$ 238,199	$ -	$ (1)
26	300mm from 61 Avenue to 54 Avenue- Meadows	$ 312,038	$ 319,459	$ -	$ (7,422)
27	Northshore Line- 16 Street to Creekside along 16 Avenue	$ 440,260	$ 440,260	$ -	$ -
28	Water Treatment Plant Upgrade	$ 91,037	$ 5,278	$ -	$ 85,759
29	Clear well Expansion*	$ -	$ -	$ -	$ -
30	61st Avenue- 300mm Waterline	$ 113,018	$ 113,018	$ -	$ -
31	54th Avenue- 51 Street to 49 Street	$ 2,383,638	$ 138,202	$ -	$ 2,245,436
32	Line to Imperial Park	$ 1,108,261	$ 64,257	$ -	$ 1,044,004
33	Bldg 5 Reservoir Improvements	$ 975,118	$ 56,537	$ -	$ 918,581
34	Reservoir/ Pump House- Ultimate	$ -	$ -	$ -	$ -
35	CLRUSC- Reservoir for Regional Waterline	$ -	$ -	$ -	$ -
		$ 10,523,743	**$ 1,795,886**	**$ -**	**$ 8,727,857**

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on actual withdrawals plus a pro rata proportion of unused funds based on total estimated project cost (if the project was not already financed in its entirety).

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 $8.73 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 benefiting offsite levy area (see tables below). Allocations are denoted with a "1" below applicable area numbers. Benefiting areas were determined by the City engineering staff. 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	Developer Cost	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	8.4
1	$ 804,687	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
2	$ 431,063	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
3	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
4	$ -																																
5	$ -																																
6	$ 825,955					1	1	1	1																								
7	$ 81,091	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
8	$ 134,332	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	$ 757,767	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	$ -																																
11	$ -																																
12	$ -																																
13	$ 289,740																																
14	$ -																																
15	$ 43,708																																
16	$ -																																
17	$ 469,468																																
18	$ 381,848																																
19	$ 221,839																																
20	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
22	$ -																																
23	$ -																																
24	$ -																																
25	$ (1)					1	1	1	1																								
26	$ (7,422)																																
27	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	$ 85,759	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	$ -																																
30	$ -																																
31	$ 2,245,436																																
32	$ 1,044,004					1	1	1	1	1	1	1	1																				
33	$ 918,581	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	$ -																																
35	$ -																																
	$ 8,727,857																																

Item	Developer Cost	9.1	9.2	9.3	9.4	10.1	10.2	10.3	10.4	11.1	11.2	11.3	11.4	12.1	12.2	12.3	12.4	17.1	17.2	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2	19.3	19.4	20.1	20.2	20.3	20.4	21.1	21.2	21.3	21.4
1	$ 804,687																																				
2	$ 431,063																																				
3	$ -																																				
4	$ -																																				
5	$ -																																				
6	$ 825,955																																				
7	$ 81,091																																				
8	$ 134,332	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	$ 757,767	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	$ -																																				
11	$ -																																				
12	$ -																																				
13	$ 289,740																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	$ -																																				
15	$ 43,708																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	$ -																																				
17	$ 469,468																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	$ 381,848																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	$ 221,839																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	$ -																																				
22	$ -																																				
23	$ -																																				
24	$ -																																				
25	$ (1)																																				
26	$ (7,422)																	1	1	1	1																
27	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1																				
28	$ 85,759	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	$ -																																				
30	$ -																	1	1	1	1																
31	$ 2,245,436																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	$ 1,044,004																																				
33	$ 918,581	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	$ -																																				
35	$ -																																				
	$ 8,727,857																																				

B8. Reserve Balance

In accordance with the MGA, the City needs to maintain 4 reserves/accounts (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's water reserve should be **–**($3,599,851.31), as shown in the table below. This balance is different from the balances currently reflected in the City's reserve and financial statements because it also factors in the front-ending owed to the City for previous infrastructure development and financing undertaken by the City on behalf of the reserve.

This balance also assumes the City will withdraw $534,950.16 currently in the reserve and use it to pay down a portion of the debt owed to the City (note, it is in the best interest of developer's that their debts be repaid as quickly as possible because debts are charged interest at a rate greater than funds earn interest).

The City also needs to establish a set of "sub-ledgers" to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

Water Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		$ 4,939,170.90	$ (4,939,170.90)
Offsite Levy Receipt Allocations to December 31, 2015	$ 1,260,935.50		$ (3,678,235.40)
Debenture Interest Accrued to December 31, 2015		$ 456,566.07	$ (4,134,801.47)
Unallocated Receipts to December 31, 2015	$ 534,950.16		$ (3,599,851.31)
Opening Balance			$ (3,599,851.31)

B9. Development and Water Infrastructure Staging Impacts

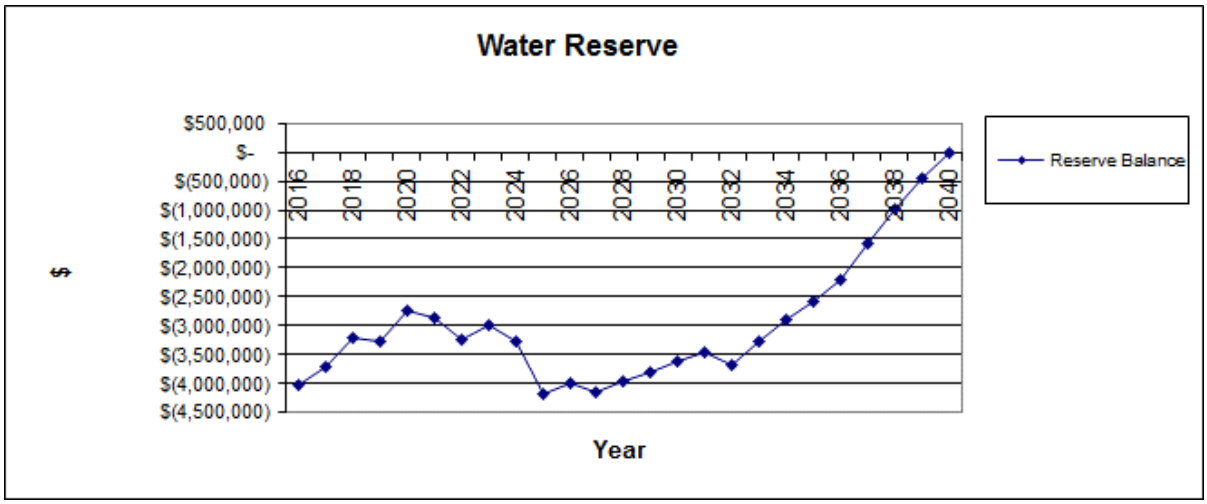
Water offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of water infrastructure 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.

In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.6%[5] interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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).

[5] The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.6%.

Anticipated Water Offsite Levy Reserve Balances



Anticipated Water Offsite Levy Reserve Balances

			Opening Balance	$ (3,599,851)
Year	**Receipts**	**Expenditures**	**Interest**	**Balance**
2016	$ 90,616	$ 405,350	$ (101,779)	$ (4,016,365)
2017	$ 499,220	$ 102,663	$ (94,115)	$ (3,713,923)
2018	$ 599,576	$ -	$ (80,973)	$ (3,195,320)
2019	$ 533,571	$ 536,532	$ (83,155)	$ (3,281,436)
2020	$ 604,409	$ -	$ (69,603)	$ (2,746,630)
2021	$ 412,321	$ 447,234	$ (72,320)	$ (2,853,863)
2022	$ 479,907	$ 770,254	$ (81,749)	$ (3,225,960)
2023	$ 431,537	$ 111,964	$ (75,566)	$ (2,981,953)
2024	$ 334,002	$ 541,046	$ (82,914)	$ (3,271,911)
2025	$ 444,608	$ 1,235,629	$ (105,636)	$ (4,168,569)
2026	$ 274,657	$ -	$ (101,242)	$ (3,995,154)
2027	$ 501,790	$ 556,875	$ (105,306)	$ (4,155,546)
2028	$ 298,208	$ -	$ (100,291)	$ (3,957,629)
2029	$ 259,878	$ -	$ (96,142)	$ (3,793,892)
2030	$ 263,034	$ -	$ (91,802)	$ (3,622,660)
2031	$ 264,254	$ -	$ (87,319)	$ (3,445,725)
2032	$ 374,614	$ 498,978	$ (92,822)	$ (3,662,911)
2033	$ 465,747	$ -	$ (83,126)	$ (3,280,291)
2034	$ 452,308	$ -	$ (73,528)	$ (2,901,510)
2035	$ 389,237	$ -	$ (65,319)	$ (2,577,592)
2036	$ 441,033	$ -	$ (55,551)	$ (2,192,110)
2037	$ 707,030	$ 65,800	$ (40,323)	$ (1,591,202)
2038	$ 618,693	$ -	$ (25,285)	$ (997,795)
2039	$ 571,390	$ -	$ (11,087)	$ (437,491)
2040	$ 437,491	$ -	$ 0	$ 0

APPENDIX C: SANITARY OFFSITE INFRASTRUCTURE

C1. Sanitary Offsite Infrastructure Costs

In order 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 $253.64 million as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City engineering 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.

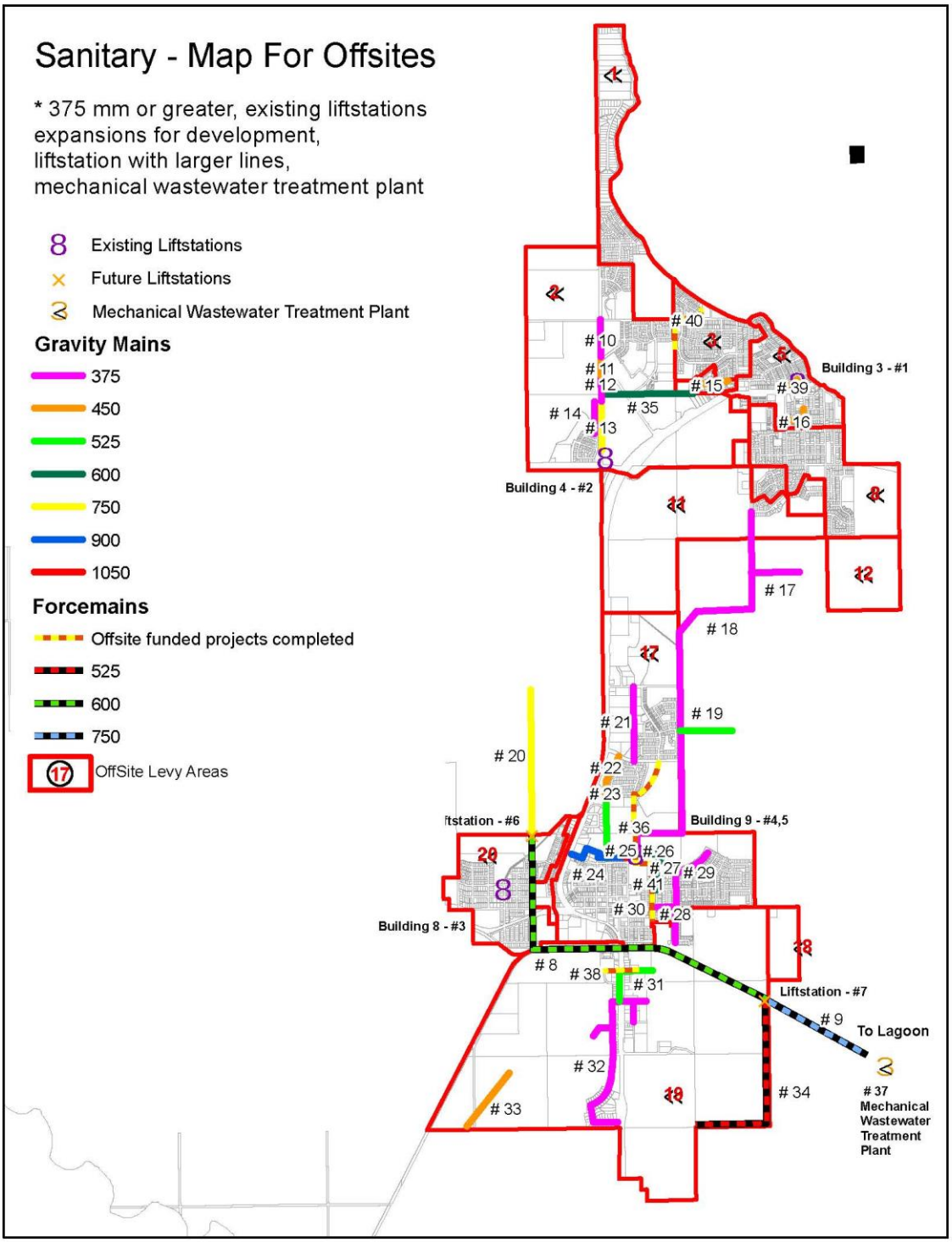
Summary of Sanitary Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Building 3	$ -	$ -	$ 6,322,000	$ 6,322,000
2	Building 4	$ -	$ -	$ 8,294,000	$ 8,294,000
3	Building 8	$ -	$ -	$ 6,380,000	$ 6,380,000
4	Building 9	$ -	$ -	$ 9,628,000	$ 9,628,000
5	Building 9	$ -	$ -	$ 1,051,250	$ 1,051,250
6	New Liftstation B	$ -	$ -	$ 5,800,000	$ 5,800,000
7	New Liftstation G	$ -	$ -	$ 8,700,000	$ 8,700,000
8	New Liftstation B Forcemain	$ -	$ -	$ 8,682,310	$ 8,682,310
9	New Liftstation G Forcemain	$ -	$ -	$ 21,315,000	$ 21,315,000
10	375mm SM-28 Street/ English Bay Road from 1st Ave to Junction of 28 Street/ English Bay Road	$ -	$ -	$ 1,284,387	$ 1,284,387
11	450mm at Junction of 28 Street/ English Bay Road	$ -	$ -	$ 813,334	$ 813,334
12	675mm Along 28 Street/ English Bay Road-junction to end of Quarter Section	$ -	$ -	$ 2,067,280	$ 2,067,280
13	750mm Along 28 Street/ English Bay Road end of Quarter Section to Building 4	$ -	$ -	$ 4,102,062	$ 4,102,062
14	375mm From Wildrye Cres to Future 25 Street Junction	$ -	$ -	$ 1,006,764	$ 1,006,764
15	450mm SM Along 7 Avenue from URW to Pheasant Cresent	$ -	$ -	$ 4,418,382	$ 4,418,382
16	450mm SM- from 12 Street Along 12 Avenue to 10 Street and up 10 Street to 10 Avenue	$ -	$ -	$ 2,302,615	$ 2,302,615
17	375mm SM running East and West from Area 12- Bottom of Uplands to Annex Area 13*	$ -	$ -	$ 3,874,516	$ 3,874,516
18	675mm SM from Bldg 6- 75 Ave- Phase 1(2112m)- then Phase 2-75 Avenue to Bldg 9- through Annex Area 14 & Area 17-(3715m) Forest Heights	$ 213,509	$ -	$ 12,343,963	$ 12,557,473
19	525mm SM East/ West in Annex Area 14*	$ -	$ -	$ 6,320,507	$ 6,320,507
20	750mm- North/ South in Annex Area 22 to Future Lift Station B*	$ -	$ -	$ 10,979,445	$ 10,979,445
21	375mm SM - Tri City Mall	$ -	$ -	$ 1,546,756	$ 1,546,756
22	450mm SM From 61 Avenue to 57 Avenue behind Meadows	$ -	$ -	$ 2,709,282	$ 2,709,282
23	525mm SM from 57 Avenue behind Meadows to 54 Avenue	$ -	$ -	$ 5,544,032	$ 5,544,032
24	900mm from 55 Street/ Hwy 28 to 49 Street- north of 54 Avenue	$ -	$ -	$ 6,289,011	$ 6,289,011
25	1050mm From 49 Street to Building 9- north of 54 Avenue	$ -	$ -	$ 1,930,284	$ 1,930,284
26	600mm Along 47 Street from Building 9 to 51 Avenue	$ -	$ -	$ 1,759,744	$ 1,759,744
27	600mm Along 54 Avenue from Building 9 to 45 Street	$ -	$ -	$ 1,533,652	$ 1,533,652
28	375mm Along 45 Street from 53 Avenue to 47 Avenue	$ -	$ -	$ 2,324,710	$ 2,324,710
29	375mm Along 53 Avenue from 45 Street to 54 Avenue	$ -	$ -	$ 1,229,472	$ 1,229,472
30	375mm Along 50 avenue from 47 Street to 45 Street	$ -	$ -	$ 524,738	$ 524,738
31	525mm- Area 19 from 40 Avenue to 43 Avenue and along 43 Avenue	$ -	$ -	$ 5,334,383	$ 5,334,383
32	375mm- From Red Fox including Fischer Extension to 38 Avenue on East Side Hwy 28 Commercial Lane	$ -	$ -	$ 8,380,548	$ 8,380,548
33	450mm from Lift Station C into Area 19	$ -	$ -	$ 4,528,292	$ 4,528,292
34	525mm connection for forcemain from Lift Station C to Lift Station G	$ -	$ -	$ 16,958,214	$ 16,958,214
35	600mm- 7th Avenue to 28 Street/ English Bay Road	$ -	$ -	$ 3,074,841	$ 3,074,841
36	Parkbridge Servicing Project 300mm- 375mm- on 47 Street Sanitary Line	$ 770,025	$ -	$ -	$ 770,025
37	Mechanical Treatment Plant	$ -	$ -	$ 46,506,000	$ 46,506,000
38	43rd Avenue- Sanitary	$ 808,516	$ 289,974	$ -	$ 1,098,490
39	Bldg 3 Liftstation & Forcemain	$ 761,523	$ -	$ -	$ 761,523
40	Bldg 1 Liftstation and Forcemain to Hospital	$ 659,572	$ -	$ -	$ 659,572
41	Bldg 9 -Forcemain to the Lagoon	$ 1,226,798	$ -	$ 13,050,000	$ 14,276,798
		$ 4,439,943	**$ 289,974**	**$ 248,909,770**	**$ 253,639,687**

*Costs are based on 2015/16 estimates.
**Unless by exception, estimates generally include engineering costs (15%) and contingencies (30%).
***Projects denoted with a "*" are for the benefit of lands beyond boundary and are not factored into rates.
****Projects highlighted in dark 'green' are RUSC projects.

A map showing the location of this infrastructure is shown below.

Location of Sanitary Offsite Infrastructure



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 of Cold Lake has received/will receive approximately $41.86 million in grants and contributions for sanitary 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 $211.78 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	Building 3	$ 6,322,000	$ -	$ -	$ 6,322,000
2	Building 4	$ 8,294,000	$ -	$ -	$ 8,294,000
3	Building 8	$ 6,380,000	$ -	$ -	$ 6,380,000
4	Building 9	$ 9,628,000	$ -	$ -	$ 9,628,000
5	Building 9	$ 1,051,250	$ -	$ -	$ 1,051,250
6	New Liftstation B	$ 5,800,000	$ -	$ -	$ 5,800,000
7	New Liftstation G	$ 8,700,000	$ -	$ -	$ 8,700,000
8	New Liftstation B Forcemain	$ 8,682,310	$ -	$ -	$ 8,682,310
9	New Liftstation G Forcemain	$ 21,315,000	$ -	$ -	$ 21,315,000
10	375mm SM-28 Street/ English Bay Road from 1st Ave to Junction of 28 Street/ English Bay Road	$ 1,284,387	$ -	$ -	$ 1,284,387
11	450mm at Junction of 28 Street/ English Bay Road	$ 813,334	$ -	$ -	$ 813,334
12	675mm Along 28 Street/ English Bay Road-junction to end of Quarter Section	$ 2,067,280	$ -	$ -	$ 2,067,280
13	750mm Along 28 Street/ English Bay Road end of Quarter Section to Building 4	$ 4,102,062	$ -	$ -	$ 4,102,062
14	375mm From Wildrye Cres to Future 25 Street Junction	$ 1,006,764	$ -	$ -	$ 1,006,764
15	450mm SM Along 7 Avenue from URW to Pheasant Cresent	$ 4,418,382	$ -	$ -	$ 4,418,382
16	450mm SM- from 12 Street Along 12 Avenue to 10 Street and up 10 Street to 10 Avenue	$ 2,302,615	$ -	$ -	$ 2,302,615
17	375mm SM running East and West from Area 12- Bottom of Uplands to Annex Area 13*	$ 3,874,516	$ -	$ -	$ 3,874,516
18	675mm SM from Bldg 6- 75 Ave- Phase 1(2112m)- then Phase 2-75 Avenue to Bldg 9- through Annex Area 14 & Area 17-(3715m) Forest Heights	$ 12,557,473	$ -	$ -	$ 12,557,473
19	525mm SM East/ West in Annex Area 14*	$ 6,320,507	$ -	$ -	$ 6,320,507
20	750mm- North/ South in Annex Area 22 to Future Lift Station B*	$ 10,979,445	$ -	$ -	$ 10,979,445
21	375mm SM - Tri City Mall	$ 1,546,756	$ -	$ -	$ 1,546,756
22	450mm SM From 61 Avenue to 57 Avenue behind Meadows	$ 2,709,282	$ -	$ -	$ 2,709,282
23	525mm SM from 57 Avenue behind Meadows to 54 Avenue	$ 5,544,032	$ -	$ -	$ 5,544,032
24	900mm from 55 Street/ Hwy 28 to 49 Street- north of 54 Avenue	$ 6,289,011	$ -	$ -	$ 6,289,011
25	1050mm From 49 Street to Building 9- north of 54 Avenue	$ 1,930,284	$ -	$ -	$ 1,930,284
26	600mm Along 47 Street from Building 9 to 51 Avenue	$ 1,759,744	$ -	$ -	$ 1,759,744
27	600mm Along 54 Avenue from Building 9 to 45 Street	$ 1,533,652	$ -	$ -	$ 1,533,652
28	375mm Along 45 Street from 53 Avenue to 47 Avenue	$ 2,324,710	$ -	$ -	$ 2,324,710
29	375mm Along 53 Avenue from 45 Street to 54 Avenue	$ 1,229,472	$ -	$ -	$ 1,229,472
30	375mm Along 50 avenue from 47 Street to 45 Street	$ 524,738	$ -	$ -	$ 524,738
31	525mm- Area 19 from 40 Avenue to 43 Avenue and along 43 Avenue	$ 5,334,383	$ -	$ -	$ 5,334,383
32	375mm- From Red Fox including Fischer Extension to 38 Avenue on East Side Hwy 28 Commercial Lane	$ 8,380,548	$ -	$ -	$ 8,380,548
33	450mm from Lift Station C into Area 19	$ 4,528,292	$ -	$ -	$ 4,528,292
34	525mm connection for forcemain from Lift Station C to Lift Station G	$ 16,958,214	$ -	$ -	$ 16,958,214
35	600mm- 7th Avenue to 28 Street/ English Bay Road	$ 3,074,841	$ -	$ -	$ 3,074,841
36	Parkbridge Servicing Project 300mm- 375mm- on 47 Street Sanitary Line	$ 770,025	$ -	$ -	$ 770,025
37	Mechanical Treatment Plant	$ 46,506,000	$ 41,855,400	$ -	$ 4,650,600
38	43rd Avenue- Sanitary	$ 1,098,490	$ -	$ -	$ 1,098,490
39	Bldg 3 Liftstation & Forcemain	$ 761,523	$ -	$ -	$ 761,523
40	Bldg 1 Liftstation and Forcemain to Hospital	$ 659,572	$ -	$ -	$ 659,572
41	Bldg 9 -Forcemain to the Lagoon	$ 14,276,798	$ -	$ -	$ 14,276,798
		$ 253,639,687	**$ 41,855,400**	**$ -**	**$ 211,784,287**

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 City's annual rate/bylaw updates.

Sanitary Infrastructure Staging

Item	Project Description	Construction Start Year
1	Building 3	2041
2	Building 4	2041
3	Building 8	2041
4	Building 9	2041
5	Building 9	2041
6	New Liftstation B	2041
7	New Liftstation G	2041
8	New Liftstation B Forcemain	2041
9	New Liftstation G Forcemain	2041
10	375mm SM-28 Street/ English Bay Road from 1st Ave to Junction of 28 Street/ English Bay Road	2024
11	450mm at Junction of 28 Street/ English Bay Road	2024
12	675mm Along 28 Street/ English Bay Road-junction to end of Quarter Section	2023
13	750mm Along 28 Street/ English Bay Road end of Quarter Section to Building 4	2023
14	375mm From Wildrye Cres to Future 25 Street Junction	2041
15	450mm SM Along 7 Avenue from URW to Pheasant Cresent	2022
16	450mm SM- from 12 Street Along 12 Avenue to 10 Street and up 10 Street to 10 Avenue	2017
17	375mm SM running East and West from Area 12- Bottom of Uplands to Annex Area 13*	2041
18	675mm SM from Bldg 6- 75 Ave- Phase 1(2112m)- then Phase 2-75 Avenue to Bldg 9- through Annex Area 14 & Area 17-(3715m) Forest Heights	2015
19	525mm SM East/ West in Annex Area 14*	2027
20	750mm- North/ South in Annex Area 22 to Future Lift Station B*	2041
21	375mm SM - Tri City Mall	2027
22	450mm SM From 61 Avenue to 57 Avenue behind Meadows	2021
23	525mm SM from 57 Avenue behind Meadows to 54 Avenue	2023
24	900mm from 55 Street/ Hwy 28 to 49 Street- north of 54 Avenue	2027
25	1050mm From 49 Street to Building 9- north of 54 Avenue	2032
26	600mm Along 47 Street from Building 9 to 51 Avenue	2027
27	600mm Along 54 Avenue from Building 9 to 45 Street	2027
28	375mm Along 45 Street from 53 Avenue to 47 Avenue	2027
29	375mm Along 53 Avenue from 45 Street to 54 Avenue	2027
30	375mm Along 50 avenue from 47 Street to 45 Street	2041
31	525mm- Area 19 from 40 Avenue to 43 Avenue and along 43 Avenue	2022
32	375mm- From Red Fox including Fischer Extension to 38 Avenue on East Side Hwy 28 Commercial Lane	2041
33	450mm from Lift Station C into Area 19	2041
34	525mm connection for forcemain from Lift Station C to Lift Station G	2041
35	600mm- 7th Avenue to 28 Street/ English Bay Road	2019
36	Parkbridge Servicing Project 300mm- 375mm- on 47 Street Sanitary Line	2007
37	Mechanical Treatment Plant	2021
38	43rd Avenue- Sanitary	2008
39	Bldg 3 Liftstation & Forcemain	2012
40	Bldg 1 Liftstation and Forcemain to Hospital	2010
41	Bldg 9 -Forcemain to the Lagoon	2011

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

C4. Sanitary Offsite Infrastructure Benefiting Parties

The sanitary offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Cold Lake – a portion of the sanitary infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing – other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial oversizing").
- City of Cold Lake Future Development – all growth related infrastructure (i.e.,

levyable 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. Project allocations were determined by City engineering staff as outlined in Appendix F.

Allocation of Sanitary Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	Building 3	$ 6,322,000	63.0%	37.0%	0.0%
2	Building 4	$ 8,294,000	63.0%	37.0%	0.0%
3	Building 8	$ 6,380,000	63.0%	37.0%	0.0%
4	Building 9	$ 9,628,000	63.0%	37.0%	0.0%
5	Building 9	$ 1,051,250	63.0%	37.0%	0.0%
6	New Liftstation B	$ 5,800,000	30.0%	70.0%	0.0%
7	New Liftstation G	$ 8,700,000	30.0%	70.0%	0.0%
8	New Liftstation B Forcemain	$ 8,682,310	30.0%	70.0%	0.0%
9	New Liftstation G Forcemain	$ 21,315,000	30.0%	70.0%	0.0%
10	375mm SM-28 Street/ English Bay Road from 1st Ave to Junction of 28 Street/ English Bay Road	$ 1,284,387	57.0%	13.8%	29.2%
11	450mm at Junction of 28 Street/ English Bay Road	$ 813,334	57.0%	13.8%	29.2%
12	675mm Along 28 Street/ English Bay Road-junction to end of Quarter Section	$ 2,067,280	57.0%	12.0%	31.0%
13	750mm Along 28 Street/ English Bay Road end of Quarter Section to Building 4	$ 4,102,062	57.0%	12.0%	31.0%
14	375mm From Wildrye Cres to Future 25 Street Junction	$ 1,006,764	57.0%	43.0%	0.0%
15	450mm SM Along 7 Avenue from URW to Pheasant Cresent	$ 4,418,382	57.0%	10.3%	32.7%
16	450mm SM- from 12 Street Along 12 Avenue to 10 Street and up 10 Street to 10 Avenue	$ 2,302,615	91.0%	0.4%	8.6%
17	375mm SM running East and West from Area 12- Bottom of Uplands to Annex Area 13*	$ 3,874,516		100.0%	0.0%
18	675mm SM from Bldg 6- 75 Ave- Phase 1(2112m)- then Phase 2-75 Avenue to Bldg 9- through Annex Area 14 & Area 17-(3715m) Forest Heights	$ 12,557,473	30.0%	50.0%	20.0%
19	525mm SM East/ West in Annex Area 14*	$ 6,320,507		100.0%	0.0%
20	750mm- North/ South in Annex Area 22 to Future Lift Station B*	$ 10,979,445		100.0%	0.0%
21	375mm SM - Tri City Mall	$ 1,546,756	60.0%	17.6%	22.4%
22	450mm SM From 61 Avenue to 57 Avenue behind Meadows	$ 2,709,282	60.0%	8.0%	32.0%
23	525mm SM from 57 Avenue behind Meadows to 54 Avenue	$ 5,544,032	60.0%	11.2%	28.8%
24	900mm from 55 Street/ Hwy 28 to 49 Street- north of 54 Avenue	$ 6,289,011	60.0%	17.6%	22.4%
25	1050mm From 49 Street to Building 9- north of 54 Avenue	$ 1,930,284	60.0%	25.6%	14.4%
26	600mm Along 47 Street from Building 9 to 51 Avenue	$ 1,759,744	60.0%	17.6%	22.4%
27	600mm Along 54 Avenue from Building 9 to 45 Street	$ 1,533,652	60.0%	17.6%	22.4%
28	375mm Along 45 Street from 53 Avenue to 47 Avenue	$ 2,324,710	60.0%	17.6%	22.4%
29	375mm Along 53 Avenue from 45 Street to 54 Avenue	$ 1,229,472	60.0%	17.6%	22.4%
30	375mm Along 50 avenue from 47 Street to 45 Street	$ 524,738	60.0%	40.0%	0.0%
31	525mm- Area 19 from 40 Avenue to 43 Avenue and along 43 Avenue	$ 5,334,383	60.0%	9.6%	30.4%
32	375mm- From Red Fox including Fischer Extension to 38 Avenue on East Side Hwy 28 Commercial Lane	$ 8,380,548	60.0%	40.0%	0.0%
33	450mm from Lift Station C into Area 19	$ 4,528,292	60.0%	40.0%	0.0%
34	525mm connection for forcemain from Lift Station C to Lift Station G	$ 16,958,214	30.0%	70.0%	0.0%
35	600mm- 7th Avenue to 28 Street/ English Bay Road	$ 3,074,841	57.0%	5.2%	37.8%
36	Parkbridge Servicing Project 300mm- 375mm- on 47 Street Sanitary Line	$ 770,025	57.0%	0.0%	43.0%
37	Mechanical Treatment Plant	$ 4,650,600	63.0%	7.4%	29.6%
38	43rd Avenue- Sanitary	$ 1,098,490	78.0%	0.0%	22.0%
39	Bldg 3 Liftstation & Forcemain	$ 761,523		0.0%	100.0%
40	Bldg 1 Liftstation and Forcemain to Hospital	$ 659,572		0.0%	100.0%
41	Bldg 9 -Forcemain to the Lagoon	$ 14,276,798		0.0%	100.0%
		$ 211,784,287			

*Allocations to lands beyond boundary include: Project #6-50%, Project #7-50%, Project #8-50%, Project #9-50%, Project #17-100%, Project #18-50%, Project #19-100%, Project #20-100%, Project #34-50%.
**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.
***Allocations to lands beyond boundary and/or financial oversizing which totals 100% reflect projects with no impact to offsite levy rates for development within the City's current boundary.

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 $33.14 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 $1.54 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately $31.60 million.

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

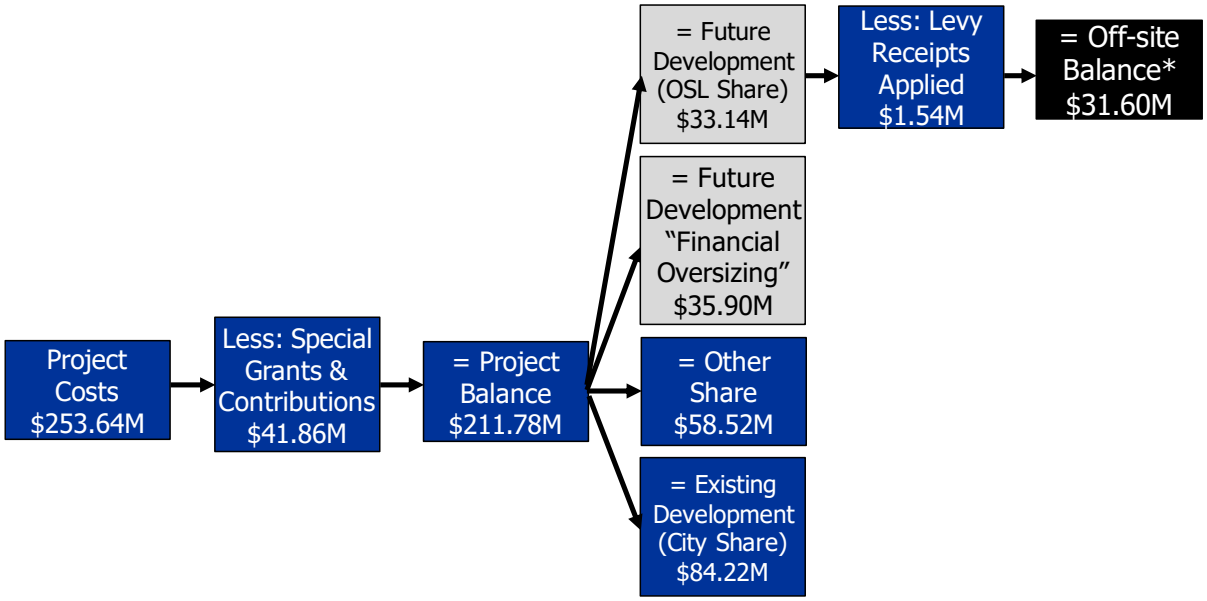
Item	Project Description	Developer Cost (Leviable Costs)	Offsite Levy Funds Collected to Dec 31, 2015	Offsite Levy Funds Collected Starting Jan 1, 2016	Adjusted Developer (Levy) Cost
1	Building 3	$ -	$ -	$ -	$ -
2	Building 4	$ -	$ -	$ -	$ -
3	Building 8	$ -	$ -	$ -	$ -
4	Building 9	$ -	$ -	$ -	$ -
5	Building 9	$ -	$ -	$ -	$ -
6	New Liftstation B	$ -	$ -	$ -	$ -
7	New Liftstation G	$ -	$ -	$ -	$ -
8	New Liftstation B Forcemain	$ -	$ -	$ -	$ -
9	New Liftstation G Forcemain	$ -	$ -	$ -	$ -
10	375mm SM-28 Street/ English Bay Road from 1st Ave to Junction of 28 Street/ English Bay Road	$ 375,555	$ 10,819	$ -	$ 364,735
11	450mm at Junction of 28 Street/ English Bay Road	$ 237,819	$ 6,851	$ -	$ 230,968
12	675mm Along 28 Street/ English Bay Road-junction to end of Quarter Section	$ 640,030	$ 18,438	$ -	$ 621,591
13	750mm Along 28 Street/ English Bay Road end of Quarter Section to Building 4	$ 1,269,998	$ 36,587	$ -	$ 1,233,411
14	375mm From Wildrye Cres to Future 25 Street Junction	$ -	$ -	$ -	$ -
15	450mm SM Along 7 Avenue from URW to Pheasant Cresent	$ 1,443,927	$ 41,598	$ -	$ 1,402,330
16	450mm SM- from 12 Street Along 12 Avenue to 10 Street and up 10 Street to 10 Avenue	$ 198,946	$ 5,731	$ -	$ 193,215
17	375mm SM running East and West from Area 12- Bottom of Uplands to Annex Area 13*	$ -	$ -	$ -	$ -
18	675mm SM from Bldg 6- 75 Ave- Phase 1(2112m)- then Phase 2-75 Avenue to Bldg 9- through Annex Area 14 & Area 17-(3715m) Forest Heights	$ 2,511,495	$ 285,862	$ -	$ 2,225,633
19	525mm SM East/ West in Annex Area 14*	$ -	$ -	$ -	$ -
20	750mm- North/ South in Annex Area 22 to Future Lift Station B*	$ -	$ -	$ -	$ -
21	375mm SM - Tri City Mall	$ 346,473	$ 9,981	$ -	$ 336,492
22	450mm SM From 61 Avenue to 57 Avenue behind Meadows	$ 866,970	$ 24,976	$ -	$ 841,994
23	525mm SM from 57 Avenue behind Meadows to 54 Avenue	$ 1,596,681	$ 45,998	$ -	$ 1,550,683
24	900mm from 55 Street/ Hwy 28 to 49 Street- north of 54 Avenue	$ 1,408,738	$ 40,584	$ -	$ 1,368,154
25	1050mm From 49 Street to Building 9- north of 54 Avenue	$ 277,961	$ 8,008	$ -	$ 269,953
26	600mm Along 47 Street from Building 9 to 51 Avenue	$ 394,183	$ 11,356	$ -	$ 382,827
27	600mm Along 54 Avenue from Building 9 to 45 Street	$ 343,538	$ 9,897	$ -	$ 333,641
28	375mm Along 45 Street from 53 Avenue to 47 Avenue	$ 520,735	$ 15,002	$ -	$ 505,733
29	375mm Along 53 Avenue from 45 Street to 54 Avenue	$ 275,402	$ 7,934	$ -	$ 267,468
30	375mm Along 50 avenue from 47 Street to 45 Street	$ -	$ -	$ -	$ -
31	525mm- Area 19 from 40 Avenue to 43 Avenue and along 43 Avenue	$ 1,621,653	$ 46,718	$ -	$ 1,574,935
32	375mm- From Red Fox including Fischer Extension to 38 Avenue on East Side Hwy 28 Commercial Lane	$ -	$ -	$ -	$ -
33	450mm from Lift Station C into Area 19	$ -	$ -	$ -	$ -
34	525mm connection for forcemain from Lift Station C to Lift Station G	$ -	$ -	$ -	$ -
35	600mm- 7th Avenue to 28 Street/ English Bay Road	$ 1,163,520	$ 33,520	$ -	$ 1,130,000
36	Parkbridge Servicing Project 300mm- 375mm- on 47 Street Sanitary Line	$ 331,111	$ 384,556	$ -	$ (53,446)
37	Mechanical Treatment Plant	$ 1,376,578	$ 39,657	$ -	$ 1,336,920
38	43rd Avenue- Sanitary	$ 241,668	$ 6,962	$ -	$ 234,706
39	Bldg 3 Liftstation & Forcemain	$ 761,523	$ 21,939	$ -	$ 739,584
40	Bldg 1 Liftstation and Forcemain to Hospital	$ 659,572	$ 19,001	$ -	$ 640,571
41	Bldg 9 -Forcemain to the Lagoon	$ 14,276,798	$ 411,296	$ -	$ 13,865,502
		$ 33,140,872	**$ 1,543,273**	**$ -**	**$ 31,597,599**

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on actual withdrawals plus a pro rata proportion of unused funds based on total estimated project cost (if the project was not already financed in its entirety).

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 $31.60 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 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 the City engineering 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	Developer Cost	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	8.4
1	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	$ -																																
7	$ -																																
8	$ -																																
9	$ -																																
10	$ 364,735	1	1	1	1	1	1	1	1					1	1	1	1																
11	$ 230,968	1	1	1	1	1	1	1	1					1	1	1	1																
12	$ 621,591	1	1	1	1	1	1	1	1					1	1	1	1																
13	$ 1,233,411	1	1	1	1	1	1	1	1					1	1	1	1																
14	$ -	1	1	1	1	1	1	1	1					1	1	1	1																
15	$ 1,402,330	1	1	1	1	1	1	1	1					1	1	1	1																
16	$ 193,215																	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	$ -																																
18	$ 2,225,633																																
19	$ -																																
20	$ -																																
21	$ 336,492																																
22	$ 841,994																																
23	$ 1,550,683																																
24	$ 1,368,154																																
25	$ 269,953																																
26	$ 382,827																																
27	$ 333,641																																
28	$ 505,733																																
29	$ 267,468																																
30	$ -																																
31	$ 1,574,935																																
32	$ -																																
33	$ -																																
34	$ -																																
35	$ 1,130,000	1	1	1	1	1	1	1	1					1	1	1	1																
36	$ (53,446)																																
37	$ 1,336,920	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	$ 234,706																																
39	$ 739,584	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	$ 640,571	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	$ 13,865,502	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 31,597,599																																

Item	Developer Cost	9.1	9.2	9.3	9.4	10.1	10.2	10.3	10.4	11.1	11.2	11.3	11.4	12.1	12.2	12.3	12.4	17.1	17.2	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2	19.3	19.4	20.1	20.2	20.3	20.4	21.1	21.2	21.3	21.4
1	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	$ 364,735																																				
11	$ 230,968																																				
12	$ 621,591																																				
13	$ 1,233,411																																				
14	$ -																																				
15	$ 1,402,330																																				
16	$ 193,215	1	1	1	1	1	1	1	1																												
17	$ -																																				
18	$ 2,225,633									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	$ -																																				
20	$ -																																				
21	$ 336,492									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	$ 841,994									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	$ 1,550,683									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24	$ 1,368,154									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	$ 269,953									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	$ 382,827									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	$ 333,641									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
28	$ 505,733									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	$ 267,468									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
31	$ 1,574,935									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
32	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	$ -									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	$ 1,130,000																																				
36	$ (53,446)									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37	$ 1,336,920	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
38	$ 234,706									1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	$ 739,584	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
40	$ 640,571	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
41	$ 13,865,502	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 31,597,599																																				

C8. Reserve Balance

In accordance with the MGA, the City needs to maintain 4 reserves/accounts (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's sanitary reserve should be **–**($1,837,122.41), as shown in the table below. This balance is different from the balances currently reflected in the City's reserve and financial statements because it also factors in the front-ending owed to the City for previous infrastructure development and financing undertaken by the City on behalf of the reserve.

This balance also assumes the City will withdraw $954,746.15 currently in the reserve and use it to pay down a portion of the debt owed to the City (note, it is in the best interest of developer's that their debts be repaid as quickly as possible because debts are charged interest at a rate greater than funds earn interest).

The City also needs to establish a set of "sub-ledgers" to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

Sanitary Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		$ 3,199,579.02	$ (3,199,579.02)
Offsite Levy Receipt Allocations to December 31, 2015	$ 588,526.71		$ (2,611,052.31)
Debenture Interest Accrued to December 31, 2015		$ 180,816.25	$ (2,791,868.56)
Unallocated Receipts to December 31, 2015	$ 954,746.15		$ (1,837,122.41)
Opening Balance			$ (1,837,122.41)

C9. Development and Sanitary Infrastructure Staging Impacts

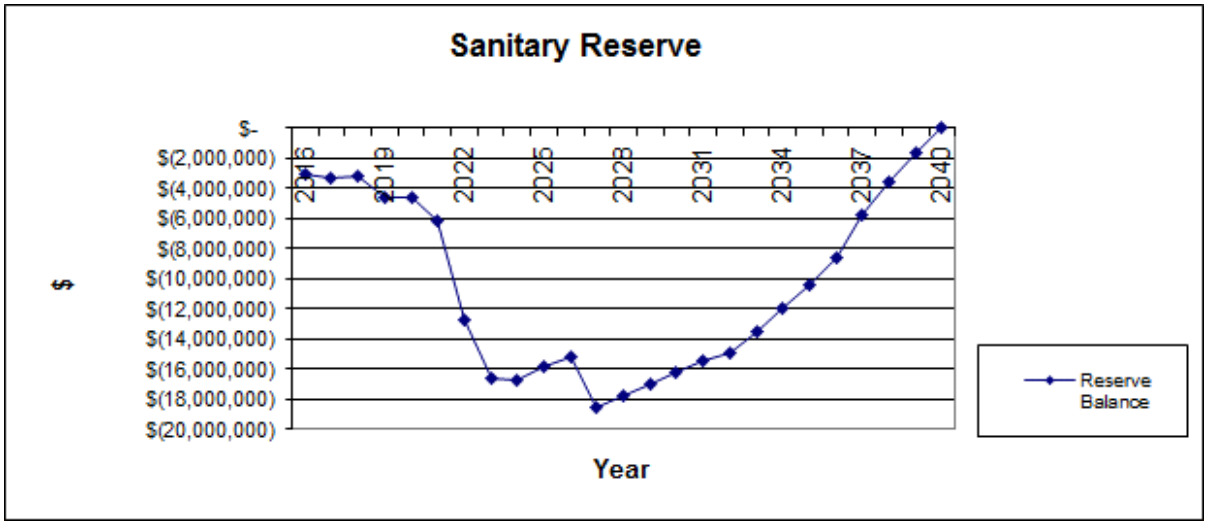
Sanitary offsite infrastructure will be constructed in staged fashion over the 25-year development period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of sanitary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

In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.6%[6] interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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).

[6] The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.6%.

Anticipated Sanitary Offsite Levy Reserve Balances



Anticipated Sanitary Offsite Levy Reserve Balances

			Opening Balance	$ (1,837,122)
Year	**Receipts**	**Expenditures**	**Interest**	**Balance**
2016	$ 283,877	$ 1,427,680	$ (77,504)	$ (3,058,429)
2017	$ 1,438,129	$ 1,675,424	$ (85,689)	$ (3,381,414)
2018	$ 1,793,557	$ 1,514,625	$ (80,665)	$ (3,183,146)
2019	$ 1,512,595	$ 2,831,474	$ (117,053)	$ (4,619,078)
2020	$ 1,747,173	$ 1,606,866	$ (116,448)	$ (4,595,220)
2021	$ 1,286,609	$ 2,771,836	$ (158,092)	$ (6,238,538)
2022	$ 1,472,384	$ 7,484,585	$ (318,519)	$ (12,569,258)
2023	$ 1,329,998	$ 4,702,204	$ (414,478)	$ (16,355,942)
2024	$ 1,015,557	$ 777,003	$ (419,052)	$ (16,536,441)
2025	$ 1,361,302	$ -	$ (394,554)	$ (15,569,692)
2026	$ 937,622	$ -	$ (380,434)	$ (15,012,504)
2027	$ 1,650,754	$ 4,552,841	$ (465,779)	$ (18,380,371)
2028	$ 1,284,074	$ -	$ (444,504)	$ (17,540,801)
2029	$ 1,144,236	$ -	$ (426,311)	$ (16,822,875)
2030	$ 1,160,624	$ -	$ (407,219)	$ (16,069,470)
2031	$ 1,219,564	$ -	$ (386,098)	$ (15,236,003)
2032	$ 1,292,634	$ 446,046	$ (374,125)	$ (14,763,539)
2033	$ 1,778,868	$ -	$ (337,601)	$ (13,322,273)
2034	$ 1,724,609	$ -	$ (301,539)	$ (11,899,204)
2035	$ 1,805,749	$ -	$ (262,430)	$ (10,355,884)
2036	$ 2,007,640	$ -	$ (217,054)	$ (8,565,299)
2037	$ 2,992,628	$ -	$ (144,889)	$ (5,717,560)
2038	$ 2,260,604	$ -	$ (89,881)	$ (3,546,837)
2039	$ 2,015,392	$ -	$ (39,818)	$ (1,571,262)
2040	$ 1,571,262	$ -	$ 0	$ 0

APPENDIX D: TRANSPORTATION OFFSITE INFRASTRUCTURE

D1. Transportation Offsite Infrastructure Costs

In order 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 $120.12 million as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City engineering 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.

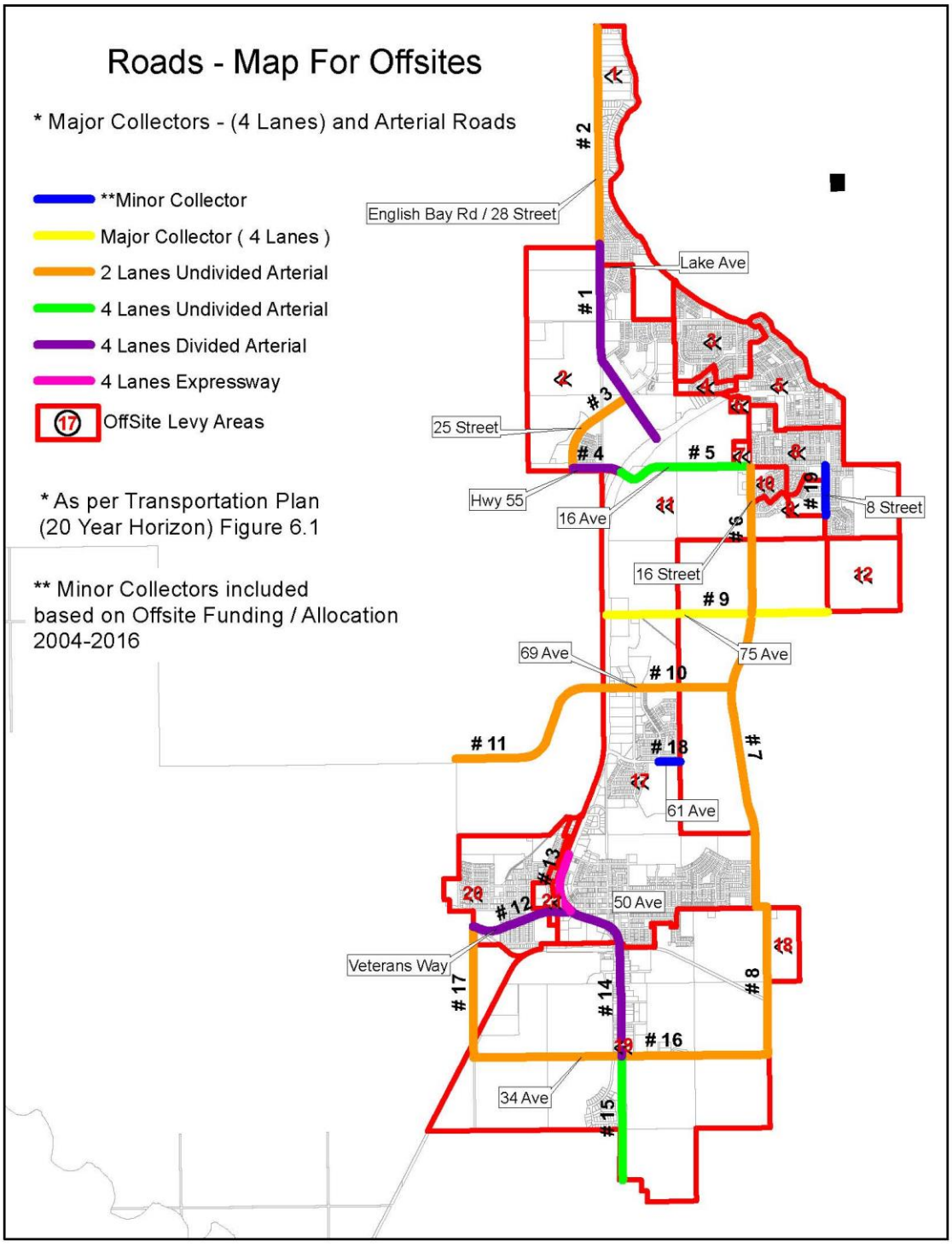
Summary of Transportation Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	English Bay Road- Lake Avenue- 28 Street	$ -	$ -	$ 12,283,110	$ 12,283,110
2	28 Street- Lake Avenue to North City limits	$ -	$ -	$ 1,987,440	$ 1,987,440
3	25 Street- Hwy 55 to 28 Street	$ 91,800	$ -	$ 5,025,200	$ 5,117,000
4	Hwy 55- 28 Street to Hwy 28	$ -	$ -	$ 2,907,090	$ 2,907,090
5	16 Avenue- Hwy 28 to 16 Street	$ -	$ -	$ 3,874,765	$ 3,874,765
6	16 Street- 16 Avenue to 75 Avenue	$ -	$ -	$ 2,579,699	$ 2,579,699
7	16 Street from 75 to 50 Avenue	$ -	$ -	$ 4,249,892	$ 4,249,892
8	16 Street from 50 to 34 Avenue	$ -	$ -	$ 2,089,308	$ 2,089,308
9	75 Avenue- Hwy 28 to 8 Street	$ -	$ -	$ 5,539,913	$ 5,539,913
10	69 Avenue- Hwy 28 to 16 Street Arterial	$ 1,174,427	$ -	$ 2,527,646	$ 3,702,073
11	69 Avenue- Hwy 28 to Glenwood- 4 Wing*	$ -	$ -	$ 5,431,309	$ 5,431,309
12	Center Ave(Veterans Way)-57 Street to Hwy 28	$ -	$ -	$ 6,787,518	$ 6,787,518
13	Hwy 28- 54 Avenue to 52 Street	$ -	$ -	$ 11,000,000	$ 11,000,000
14	Hwy 28- 52nd Street to 54th Avenue	$ -	$ -	$ 29,712,000	$ 29,712,000
15	Hwy 28- 34 Ave to South City Limits	$ -	$ -	$ 5,182,000	$ 5,182,000
16	Arterial 34 Avenue	$ -	$ -	$ 10,235,599	$ 10,235,599
17	Arterial 34 Avenue to Veterans Way*	$ -	$ -	$ 4,329,972	$ 4,329,972
18	Collector -61 Avenue	$ 266,379	$ -	$ 304,532	$ 570,911
19	Collector-8th Street-16 Avenue to 20 Avenue	$ 1,372,501	$ -	$ 1,164,564	$ 2,537,065
		$ 2,905,107	**$ -**	**$ 117,211,556**	**$ 120,116,663**

*Costs are based on 2015/16 estimates.
**Unless by exception, estimates generally include engineering costs (15%) and contingencies (30%).
***Projects denoted with a "*" are for the benefit of lands beyond boundary and are not factored into rates.

A map showing the location of this infrastructure is shown below.

Location of Transportation Offsite Infrastructure



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 of Cold Lake has received/will receive approximately $26.17 million in 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 $93.95 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	English Bay Road- Lake Avenue- 28 Street	$ 12,283,110	$ -	$ -	$ 12,283,110
2	28 Street- Lake Avenue to North City limits	$ 1,987,440	$ -	$ -	$ 1,987,440
3	25 Street- Hwy 55 to 28 Street	$ 5,117,000	$ -	$ -	$ 5,117,000
4	Hwy 55- 28 Street to Hwy 28	$ 2,907,090	$ -	$ -	$ 2,907,090
5	16 Avenue- Hwy 28 to 16 Street	$ 3,874,765	$ -	$ -	$ 3,874,765
6	16 Street- 16 Avenue to 75 Avenue	$ 2,579,699	$ -	$ -	$ 2,579,699
7	16 Street from 75 to 50 Avenue	$ 4,249,892	$ -	$ -	$ 4,249,892
8	16 Street from 50 to 34 Avenue	$ 2,089,308	$ -	$ -	$ 2,089,308
9	75 Avenue- Hwy 28 to 8 Street	$ 5,539,913	$ -	$ -	$ 5,539,913
10	69 Avenue- Hwy 28 to 16 Street Arterial	$ 3,702,073	$ -	$ -	$ 3,702,073
11	69 Avenue- Hwy 28 to Glenwood- 4 Wing*	$ 5,431,309	$ -	$ -	$ 5,431,309
12	Center Ave(Veterans Way)-57 Street to Hwy 28	$ 6,787,518	$ -	$ -	$ 6,787,518
13	Hwy 28- 54 Avenue to 52 Street	$ 11,000,000	$ -	$ -	$ 11,000,000
14	Hwy 28- 52nd Street to 54th Avenue	$ 29,712,000	$ 22,284,000	$ -	$ 7,428,000
15	Hwy 28- 34 Ave to South City Limits	$ 5,182,000	$ 3,886,500	$ -	$ 1,295,500
16	Arterial 34 Avenue	$ 10,235,599	$ -	$ -	$ 10,235,599
17	Arterial 34 Avenue to Veterans Way*	$ 4,329,972	$ -	$ -	$ 4,329,972
18	Collector -61 Avenue	$ 570,911	$ -	$ -	$ 570,911
19	Collector-8th Street-16 Avenue to 20 Avenue	$ 2,537,065	$ -	$ -	$ 2,537,065
		$ 120,116,663	**$ 26,170,500**	**$ -**	**$ 93,946,163**

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 City's annual rate/bylaw updates.

Transportation Infrastructure Staging

Item	Project Description	Construction Start Year
1	English Bay Road- Lake Avenue- 28 Street	2025
2	28 Street- Lake Avenue to North City limits	2041
3	25 Street- Hwy 55 to 28 Street	2019
4	Hwy 55- 28 Street to Hwy 28	2021
5	16 Avenue- Hwy 28 to 16 Street	2041
6	16 Street- 16 Avenue to 75 Avenue	2018
7	16 Street from 75 to 50 Avenue	2041
8	16 Street from 50 to 34 Avenue	2041
9	75 Avenue- Hwy 28 to 8 Street	2027
10	69 Avenue- Hwy 28 to 16 Street Arterial	2006
11	69 Avenue- Hwy 28 to Glenwood- 4 Wing*	2041
12	Center Ave(Veterans Way)-57 Street to Hwy 28	2041
13	Hwy 28- 54 Avenue to 52 Street	2016
14	Hwy 28- 52nd Street to 54th Avenue	2020
15	Hwy 28- 34 Ave to South City Limits	2023
16	Arterial 34 Avenue	2041
17	Arterial 34 Avenue to Veterans Way*	2041
18	Collector -61 Avenue	2015
19	Collector-8th Street-16 Avenue to 20 Avenue	2011

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

D4. Transportation Offsite Infrastructure Benefiting Parties

The transportation offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Cold Lake – a portion of the transportation infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing – other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period (“financial oversizing”).
- City of Cold Lake Future Development – all growth related infrastructure (i.e., levyable 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 engineering staff as outlined in Appendix F.

Allocation of Transportation Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	English Bay Road- Lake Avenue- 28 Street	$ 12,283,110	63.0%	13.3%	23.7%
2	28 Street- Lake Avenue to North City limits	$ 1,987,440	31.5%	68.5%	0.0%
3	25 Street- Hwy 55 to 28 Street	$ 5,117,000	63.0%	4.4%	32.6%
4	Hwy 55- 28 Street to Hwy 28	$ 2,907,090	31.5%	53.7%	14.8%
5	16 Avenue- Hwy 28 to 16 Street	$ 3,874,765	63.0%	37.0%	0.0%
6	16 Street- 16 Avenue to 75 Avenue	$ 2,579,699	31.5%	51.5%	17.0%
7	16 Street from 75 to 50 Avenue	$ 4,249,892	8.0%	92.0%	0.0%
8	16 Street from 50 to 34 Avenue	$ 2,089,308	63.0%	37.0%	0.0%
9	75 Avenue- Hwy 28 to 8 Street	$ 5,539,913	20.0%	73.3%	6.7%
10	69 Avenue- Hwy 28 to 16 Street Arterial	$ 3,702,073	34.0%	46.0%	20.0%
11	69 Avenue- Hwy 28 to Glenwood- 4 Wing*	$ 5,431,309		100.0%	0.0%
12	Center Ave(Veterans Way)-57 Street to Hwy 28	$ 6,787,518	63.0%	37.0%	0.0%
13	Hwy 28- 54 Avenue to 52 Street	$ 11,000,000	100.0%		0.0%
14	Hwy 28- 52nd Street to 54th Avenue	$ 7,428,000	63.0%	5.9%	31.1%
15	Hwy 28- 34 Ave to South City Limits	$ 1,295,500	63.0%	10.4%	26.6%
16	Arterial 34 Avenue	$ 10,235,599	63.0%	37.0%	0.0%
17	Arterial 34 Avenue to Veterans Way*	$ 4,329,972		100.0%	0.0%
18	Collector -61 Avenue	$ 570,911			100.0%
19	Collector-8th Street-16 Avenue to 20 Avenue	$ 2,537,065			100.0%
		$ 93,946,163			

*Allocations to lands beyond boundary include: Project #2-50%, Project #4-50%, Project #6-50%, Project #7-87%, Project #9-68%, Project #10-46%, Project #11-100%, Project #17-100%.
**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.
***Allocations to lands beyond boundary and/or financial oversizing which totals 100% reflect projects with no impact to offsite levy rates for development within the City's current boundary.

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 $12.32 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 $3.52 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately $8.80 million.

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

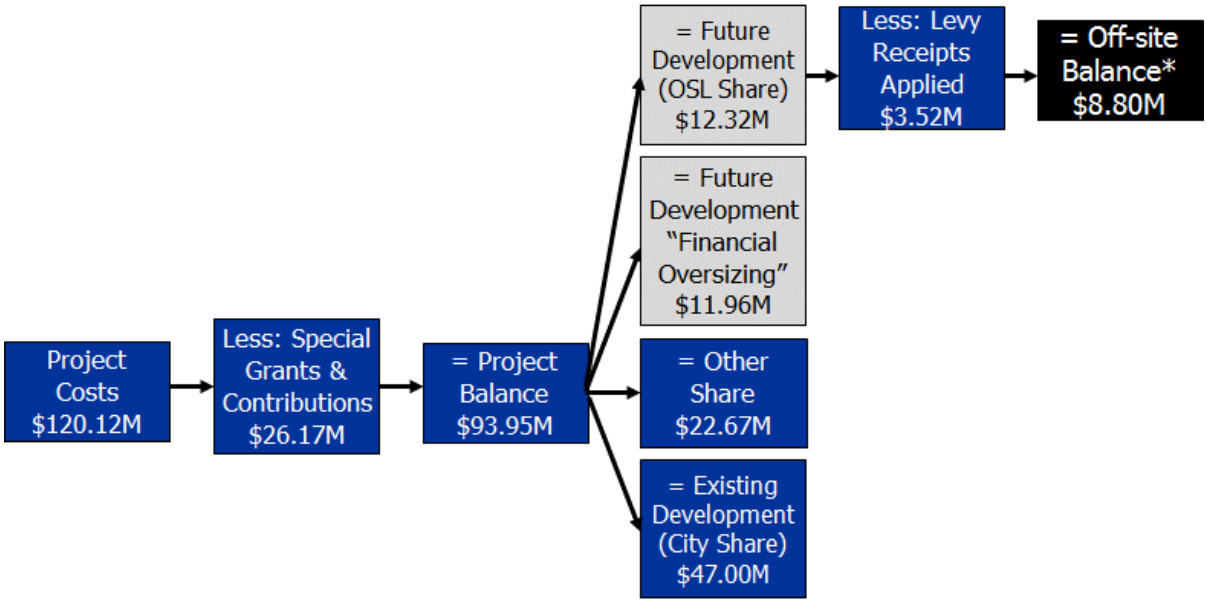
Item	Project Description	Developer Cost (Leviable Costs)	Offsite Levy Funds Collected to Dec 31, 2015	Offsite Levy Funds Collected Starting Jan 1, 2016	Adjusted Developer (Levy) Cost
1	English Bay Road- Lake Avenue- 28 Street	$ 2,908,640	$ 329,306	$ -	$ 2,579,335
2	28 Street- Lake Avenue to North City limits	$ -	$ -	$ -	$ -
3	25 Street- Hwy 55 to 28 Street	$ 1,666,095	$ 280,429	$ -	$ 1,385,666
4	Hwy 55- 28 Street to Hwy 28	$ 430,249	$ 48,711	$ -	$ 381,538
5	16 Avenue- Hwy 28 to 16 Street	$ -	$ -	$ -	$ -
6	16 Street- 16 Avenue to 75 Avenue	$ 439,065	$ 49,709	$ -	$ 389,355
7	16 Street from 75 to 50 Avenue	$ -	$ -	$ -	$ -
8	16 Street from 50 to 34 Avenue	$ -	$ -	$ -	$ -
9	75 Avenue- Hwy 28 to 8 Street	$ 372,282	$ 42,148	$ -	$ 330,134
10	69 Avenue- Hwy 28 to 16 Street Arterial	$ 740,415	$ 1,100,185	$ -	$ (359,770)
11	69 Avenue- Hwy 28 to Glenwood- 4 Wing*	$ -	$ -	$ -	$ -
12	Center Ave(Veterans Way)-57 Street to Hwy 28	$ -	$ -	$ -	$ -
13	Hwy 28- 54 Avenue to 52 Street	$ -	$ -	$ -	$ -
14	Hwy 28- 52nd Street to 54th Avenue	$ 2,308,622	$ 261,374	$ -	$ 2,047,249
15	Hwy 28- 34 Ave to South City Limits	$ 345,121	$ 39,073	$ -	$ 306,048
16	Arterial 34 Avenue	$ -	$ -	$ -	$ -
17	Arterial 34 Avenue to Veterans Way*	$ -	$ -	$ -	$ -
18	Collector -61 Avenue	$ 570,911	$ 331,015	$ -	$ 239,895
19	Collector-8th Street-16 Avenue to 20 Avenue	$ 2,537,065	$ 1,037,237	$ -	$ 1,499,828
		$ 12,318,466	**$ 3,519,189**	**$ -**	**$ 8,799,277**

*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on actual withdrawals plus a pro rata proportion of unused funds based on total estimated project cost (if the project was not already financed in its entirety).

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 $8.80 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 the City engineering staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Transportation Offsite Infrastructure

Item	Developer Cost	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	8.4
1	$ 2,579,335	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	$ 1,385,666	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	$ 381,538	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	$ 389,355	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	$ 330,134	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	$ (359,770)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	$ -																																
12	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	$ 2,047,249	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	$ 306,048	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	$ -																																
18	$ 239,895	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	$ 1,499,828	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 8,799,277																																

Item	Developer Cost	9.1	9.2	9.3	9.4	10.1	10.2	10.3	10.4	11.1	11.2	11.3	11.4	12.1	12.2	12.3	12.4	17.1	17.2	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2	19.3	19.4	20.1	20.2	20.3	20.4	21.1	21.2	21.3	21.4
1	$ 2,579,335	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	$ 1,385,666	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	$ 381,538	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	$ 389,355	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	$ 330,134	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	$ (359,770)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	$ -																																				
12	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	$ 2,047,249	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	$ 306,048	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	$ -	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	$ -																																				
18	$ 239,895	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	$ 1,499,828	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 8,799,277																																				

D8. Reserve Balance

In accordance with the MGA, the City needs to maintain 4 reserves/accounts (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's transportation reserve should be $1,611,456.94, as shown in the table below. This balance is different from the balances currently reflected in the City's reserve and financial statements because it also factors in withdrawals the City made to pay for front-ending offsite infrastructure. However, stemming from a change in the allocation % of various project to new development, the City actually over-withdrew by $300,632.40. Accordingly, this balance also assumes the City will repay/"top-up" $300,632.40 to the reserve.

The City also needs to establish a set of "sub-ledgers" to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

Transportation Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		$ 1,907,731.35	$ (1,907,731.35)
Offsite Levy Receipt Allocations to December 31, 2015	$ 2,208,363.75		$ 300,632.40
Debenture Interest Accrued to December 31, 2015		$ -	$ 300,632.40
Unallocated Receipts to December 31, 2015	$ 1,310,824.54		$ 1,611,456.94
Opening Balance			$ 1,611,456.94

D9. Development and Transportation Infrastructure Staging Impacts

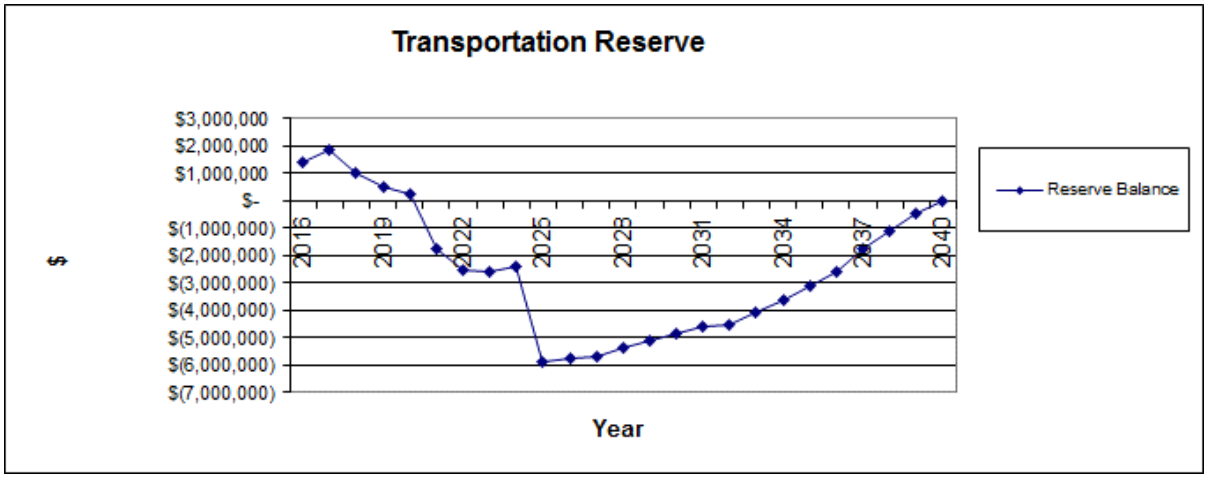
Transportation offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of transportation 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.

In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.6%[7] interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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 transportation 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).

[7] The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.6%.

Anticipated Transportation Offsite Levy Reserve Balances



Anticipated Transportation Offsite Levy Reserve Balances

			Reserve Balance	$ 1,611,457
Year	**Receipts**	**Expenditures**	**Interest**	**Balance**
2016	$ 88,341	$ 302,583	$ 13,972	$ 1,411,188
2017	$ 438,195	$ -	$ 18,494	$ 1,867,877
2018	$ 551,913	$ 1,382,523	$ 10,373	$ 1,047,640
2019	$ 458,954	$ 1,019,529	$ 4,871	$ 491,935
2020	$ 532,903	$ 779,512	$ 2,453	$ 247,779
2021	$ 400,064	$ 2,380,521	$ (45,050)	$ (1,777,728)
2022	$ 482,080	$ 1,182,054	$ (64,420)	$ (2,542,122)
2023	$ 412,356	$ 424,456	$ (66,410)	$ (2,620,632)
2024	$ 313,800	$ -	$ (59,978)	$ (2,366,809)
2025	$ 415,224	$ 3,795,116	$ (149,414)	$ (5,896,115)
2026	$ 291,253	$ -	$ (145,726)	$ (5,750,589)
2027	$ 521,677	$ 295,171	$ (143,626)	$ (5,667,709)
2028	$ 416,530	$ -	$ (136,531)	$ (5,387,710)
2029	$ 389,575	$ -	$ (129,952)	$ (5,128,086)
2030	$ 378,210	$ -	$ (123,497)	$ (4,873,373)
2031	$ 402,434	$ -	$ (116,244)	$ (4,587,183)
2032	$ 399,585	$ 203,117	$ (114,159)	$ (4,504,874)
2033	$ 552,891	$ -	$ (102,752)	$ (4,054,734)
2034	$ 533,418	$ -	$ (91,554)	$ (3,612,871)
2035	$ 565,273	$ -	$ (79,238)	$ (3,126,835)
2036	$ 628,885	$ -	$ (64,947)	$ (2,562,897)
2037	$ 945,919	$ 110,809	$ (44,922)	$ (1,772,709)
2038	$ 690,446	$ -	$ (28,139)	$ (1,110,402)
2039	$ 631,632	$ -	$ (12,448)	$ (491,218)
2040	$ 491,218	$ -	$ (0)	$ (0)

APPENDIX E: STORMWATER OFFSITE INFRASTRUCTURE

E1. Stormwater Offsite Infrastructure Costs

In order to support future growth, stormwater 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 $25.12 million as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City engineering 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.

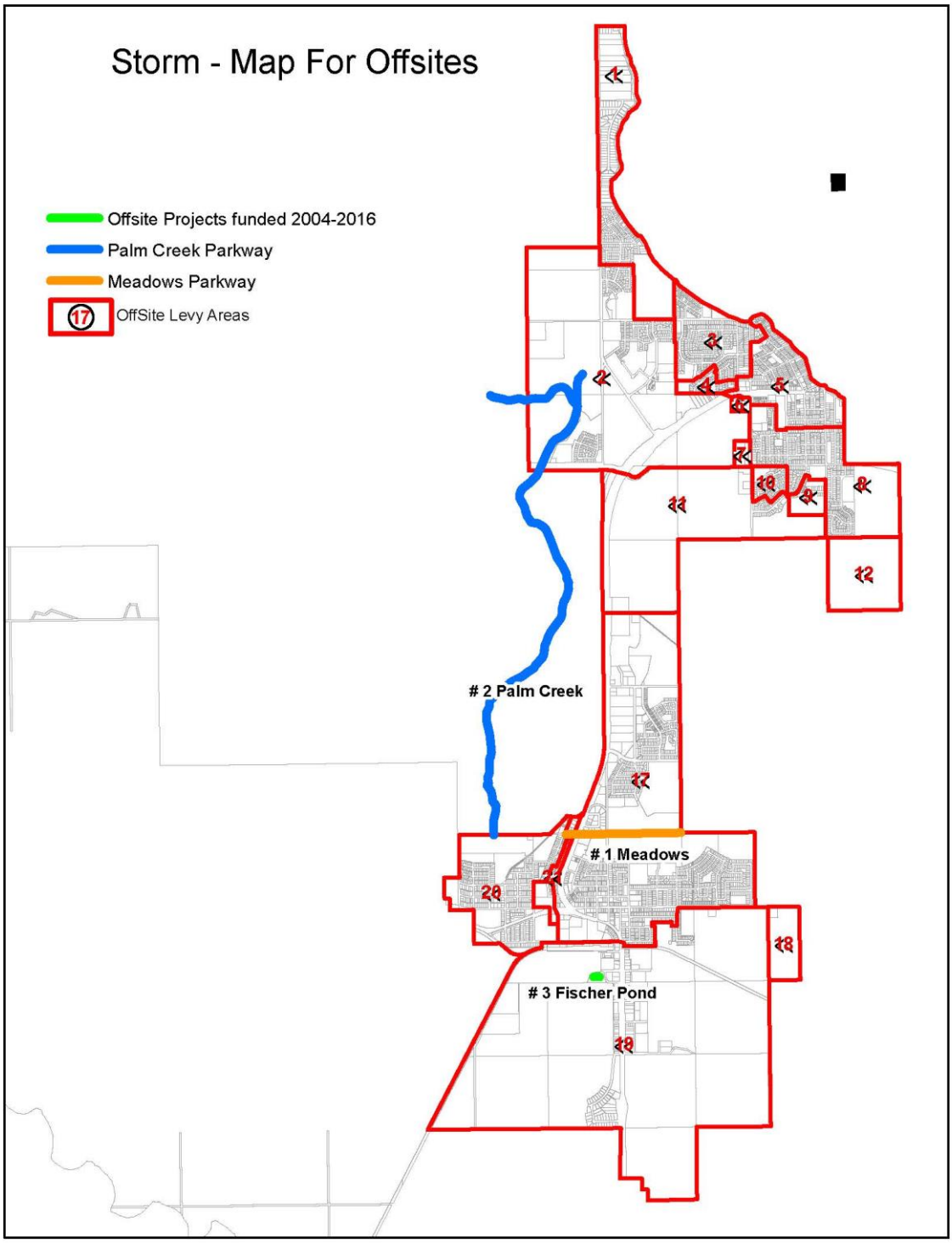
Summary of Stormwater Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Meadows Drainage Parkway	$ 135,518	$ -	$ 14,838,982	$ 14,974,500
2	Palm Creek Drainage Parkway	$ -	$ -	$ 10,051,200	$ 10,051,200
3	Fischer Estates Pond	$ 97,967	$ -	$ -	$ 97,967
		$ 233,485	**$ -**	**$ 24,890,182**	**$ 25,123,667**

*Costs are based on 2015/16 estimates.
**Unless by exception, estimates generally include engineering costs (15%) and contingencies (30%).
***Projects denoted with a "*" are for the benefit of lands beyond boundary and are not factored into rates.

A map showing the location of this infrastructure is shown below.

Location of Stormwater Offsite Infrastructure



E2. Stormwater 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 of Cold Lake has not received any special grants or contributions for stormwater 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 $25.12 million.

Special Grants and Contributions for Stormwater Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Meadows Drainage Parkway	$ 14,974,500	$ -	$ -	$ 14,974,500
2	Palm Creek Drainage Parkway	$ 10,051,200	$ -	$ -	$ 10,051,200
3	Fischer Estates Pond	$ 97,967	$ -	$ -	$ 97,967
		$ 25,123,667	**$ -**	**$ -**	**$ 25,123,667**

E3. Stormwater 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 City's annual rate/bylaw updates.

Stormwater Infrastructure Staging

Item	Project Description	Construction Start Year
1	Meadows Drainage Parkway	2015
2	Palm Creek Drainage Parkway	2025
3	Fischer Estates Pond	2012

*The share of projects constructed beyond the 25-year review period (2040) are not included in rates today (see financial oversizing in next Section).

E4. Stormwater Offsite Infrastructure Benefiting Parties

The stormwater offsite infrastructure previously outlined will benefit various parties to varying degrees. During this review three potential benefiting parties were identified including:

- City of Cold Lake – a portion of the stormwater infrastructure which is required to service existing residents.
- Other Stakeholders and Financial Oversizing – other parties (such as neighboring municipalities) that benefit from the infrastructure, as well as that portion of cost which benefits future development beyond the 25-year review period ("financial

oversizing").

- City of Cold Lake Future Development – all growth related infrastructure (i.e., levyable stormwater infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of stormwater offsite levy infrastructure costs to benefiting parties. Project allocations were determined by City engineering staff as outlined in Appendix F.

Allocation of Stormwater Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share & Financial Oversizing %	OSL / Developer Share %
1	Meadows Drainage Parkway	$ 14,974,500	41.0%	47.0%	12.0%
2	Palm Creek Drainage Parkway	$ 10,051,200	31.0%	55.6%	13.4%
3	Fischer Estates Pond	$ 97,967		0.0%	100.0%
		$ 25,123,667			

*Allocations to lands beyond boundary include: Project #1-47%, Project #2-48%.
**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.
***Allocations to lands beyond boundary and/or financial oversizing which totals 100% reflect projects with no impact to offsite levy rates for development within the City's current boundary.

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 $3.25 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 $1.37 million in offsite levies to date. This results in an adjusted offsite levy cost of approximately $1.88 million.

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	Developer Cost (Leviable Costs)	Offsite Levy Funds Collected to Dec 31, 2015	Offsite Levy Funds Collected Starting Jan 1, 2016	Adjusted Developer (Levy) Cost
1	Meadows Drainage Parkway	$ 1,796,940	$ 725,860	$ -	$ 1,071,080
2	Palm Creek Drainage Parkway	$ 1,350,881	$ 545,678	$ -	$ 805,203
3	Fischer Estates Pond	$ 97,967	$ 97,967	$ -	$ -
		$ 3,245,788	**$ 1,369,505**	**$ -**	**$ 1,876,283**

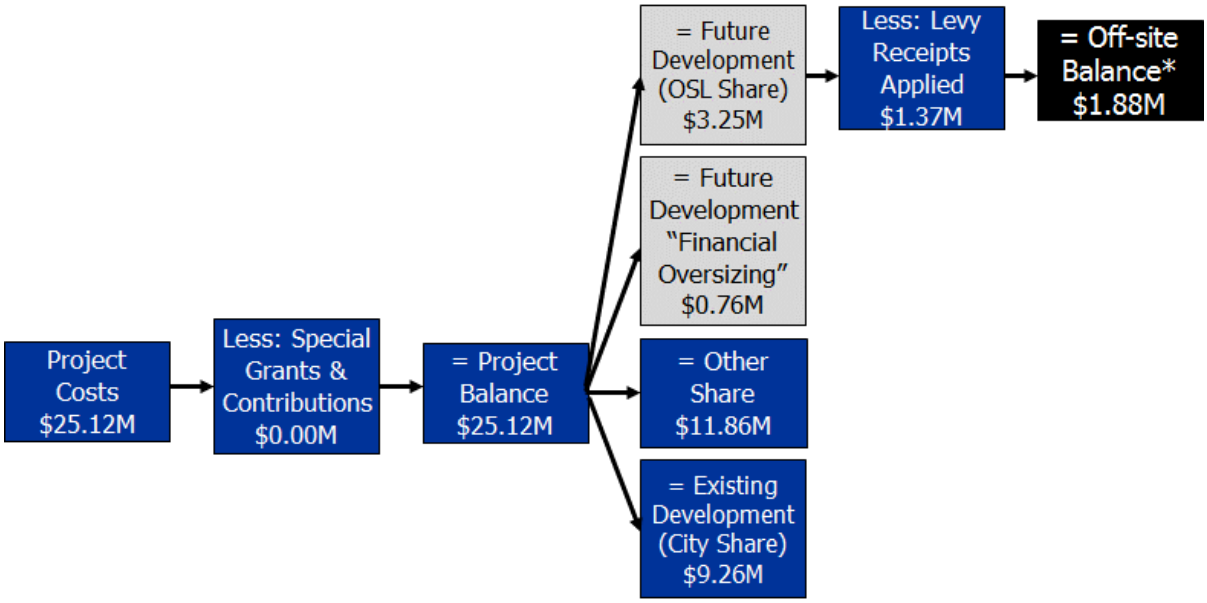
*Offsite levies collected to Dec. 31st, 2015 were allocated to projects based on actual withdrawals plus a pro rata proportion of unused funds based on total estimated project cost (if the project was not already financed in its entirety).

E6. Summary of Stormwater Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for stormwater infrastructure that forms the basis of the rate is approximately $1.88 million. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section E4. The offsite levy balance (due

from developers) is allocated to various benefitting areas (as described in the next section).

Total Stormwater Offsite Levy Costs



E7. Stormwater 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 the City engineering staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Stormwater Offsite Infrastructure

Item	Developer Cost	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	8.4
1	$ 1,071,080																																
2	$ 805,203					1	1	1	1													1	1	1	1	1	1	1	1				
3	$ -																																
	$ 1,876,283																																

Item	Developer Cost	9.1	9.2	9.3	9.4	10.1	10.2	10.3	10.4	11.1	11.2	11.3	11.4	12.1	12.2	12.3	12.4	17.1	17.2	17.3	17.4	18.1	18.2	18.3	18.4	19.1	19.2	19.3	19.4	20.1	20.2	20.3	20.4	21.1	21.2	21.3	21.4
1	$ 1,071,080																	1	1	1	1													1	1	1	1
2	$ 805,203	1	1	1	1					1	1	1	1																	1	1	1	1				
3	$ -																									1	1	1	1								
	$ 1,876,283																																				

E8. Reserve Balance

In accordance with the MGA, the City needs to maintain 4 reserves/accounts (one each for transportation, water, sanitary, and stormwater). At December 31st, 2015, the balance of the City's stormwater reserve should be $1,255,275.84, as shown in the table below. This balance is different from the balances currently reflected in the City's reserve and financial statements because it also factors in the front-ending owed to the City for previous infrastructure development and financing undertaken by the City on behalf of the reserve.

This balance also assumes the City will withdraw $16,242.16 currently in the reserve and use it to pay down a portion of the debt owed to the City (note, it is in the best interest of developer's that their debts be repaid as quickly as possible because debts are charged interest at a rate greater than funds earn interest).

The City also needs to establish a set of "sub-ledgers" to track the amounts due to front-ending parties, including interest impacts in accordance with the interest rates underpinning the bylaw.

Stormwater Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2015		$ 114,229.19	$ (114,229.19)
Offsite Levy Receipt Allocations to December 31, 2015	$ 97,967.03		$ (16,262.16)
Debenture Interest Accrued to December 31, 2015		$ -	$ (16,262.16)
Unallocated Receipts to December 31, 2015	$ 1,271,538.00		$ 1,255,275.84
Opening Balance			$ 1,255,275.84

E9. Development and Stormwater Infrastructure Staging Impacts

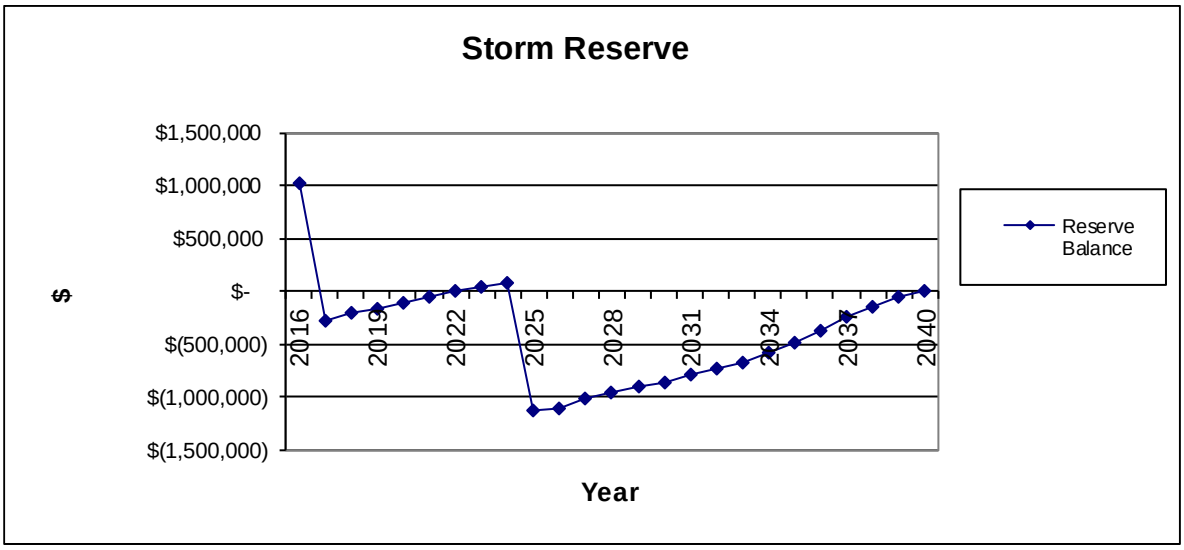
Stormwater offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of stormwater 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.

In order to compensate parties for capital they provide in front-ending offsite infrastructure construction, a 2.6%[8] interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a 1% 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 stormwater 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).

[8] The 20-year debenture rate at the Alberta Capital Finance Authority is currently ~2.6%.

Anticipated Stormwater Offsite Levy Reserve Balances



Anticipated Stormwater Offsite Levy Reserve Balances

		Opening Balance		$ 1,255,276
Year	**Receipts**	**Expenditures**	**Interest**	**Balance**
2016	$ 21,587	$ 233,602	$ 10,433	$ 1,053,693
2017	$ 88,578	$ 1,240,068	$ (2,543)	$ (100,340)
2018	$ 87,287	$ -	$ (339)	$ (13,392)
2019	$ 60,745	$ -	$ 474	$ 47,827
2020	$ 75,789	$ -	$ 1,236	$ 124,852
2021	$ 64,589	$ -	$ 1,894	$ 191,335
2022	$ 67,040	$ -	$ 2,584	$ 260,959
2023	$ 42,647	$ -	$ 3,036	$ 306,642
2024	$ 41,928	$ -	$ 3,486	$ 352,056
2025	$ 64,035	$ 1,762,594	$ (35,009)	$ (1,381,512)
2026	$ 61,643	$ -	$ (34,317)	$ (1,354,186)
2027	$ 123,275	$ -	$ (32,004)	$ (1,262,914)
2028	$ 97,924	$ -	$ (30,290)	$ (1,195,280)
2029	$ 82,157	$ -	$ (28,941)	$ (1,142,064)
2030	$ 89,517	$ -	$ (27,366)	$ (1,079,913)
2031	$ 92,770	$ -	$ (25,666)	$ (1,012,809)
2032	$ 95,108	$ -	$ (23,860)	$ (941,561)
2033	$ 103,778	$ -	$ (21,782)	$ (859,565)
2034	$ 118,049	$ -	$ (19,279)	$ (760,796)
2035	$ 137,306	$ -	$ (16,211)	$ (639,700)
2036	$ 148,731	$ -	$ (12,765)	$ (503,734)
2037	$ 174,885	$ -	$ (8,550)	$ (337,399)
2038	$ 135,678	$ -	$ (5,245)	$ (206,966)
2039	$ 127,294	$ -	$ (2,071)	$ (81,744)
2040	$ 81,744	$ -	$ 0	$ 0

APPENDIX F: INFRASRUCTURE ALLOCATIONS

The following infrastructure details were provided by the City of Cold Lake engineering staff.

		Allocation to Benefitting Parties					
Project #	Project Name	City Share % (existing development)	Other Stakeholders Share % (e.g. MD)	Offsite Levy / Developer Share % (new development)	Notes	Allocation Formula	Benefit Areas
Transportation- GL 1-4-32-00-760							
1	English Bay Road/ 28 Street- Lake Avenue- HWY 28	63.0%	0.0%	37.0%		City Total Area/Developed Area= City Share (1605/2546=63%) City Total Area/Undeveloped Area= Developer Share (940/2546=37%)	Entire City
2	English Bay/28 Street- Lake Avenue to North City limits	31.5%	50.0%	18.5%	Roads that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: City Total Area/Developed Area = City Share X .5 (1605/2546=63%) X.5=31.5% City Total Area/Undeveloped Area = Developer Share X.5 (940/2546=37%) x.5=18.5%	Boarders the City and the MD
3	25 Street- Hwy 55 to 28 Street	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
4	Hwy 55- 28 Street to Hwy 28	31.5%	50.0%	18.5%	Roads that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: City Total Area/ Developed Area= City Share X .5 (1605/2546=63%) X.5=31.5% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=18.5%	Boarders the City and the MD
5	16 Avenue- Hwy 28 to 16 Street	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
6	16 Street- 16 Avenue to 75 Avenue	31.5%	50.0%	18.5%	When part of the road was within the City and the other portion within the MD then the length if the road determined the share each municipality would contribute. Lengths are approximate based on GIS take off	Formula for portion of Line cost based on length: 807/1625= 50% City portion of the line 818/1625= 50% MD Share of the line 50% City Portion Share Formula City Total Area/Developed Area = City Share (1605/2546=63%) X .5 =31.5% City Total Area/ Undeveloped Area= Developer Share (940/2546=37%) X .5=18.5%	City and MD
7	16 Street from 75 to 50 Avenue	8.0%	87.0%	5.0%	When part of the road was within the City and the other portion within the MD then the length if the road determined the share each municipality would contribute. The 847m that borders both municipalities were based on a a 50/ 50 split- Cold Lake's share was based on developed land being the City's share and the undeveloped land being the developer and the road that was within the MD 2453m was 100% MD costs	Formula for portion of Line cost based on length: 847/3300= 26% portion of line borders /2 = 13% City portion and 13% MD portion 2453/3300= 74% MD portion of the line within MD Total MD share 74% +13%= 87% 13% City Share Formula City Total Area/ Developed Area= City Share (1605/2546=63%) X .13 =8% City Total Area/ Undeveloped Area= Developer Share (940/2546=37%) X .13=5%	City and MD
8	16 Street from 50 to 34 Avenue	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
9	75 Avenue- Hwy 28 to 8 Street	20.0%	68.0%	12.0%	When part of the road was within the City and the other portion within the MD then the length if the road determined the share each municipality would contribute. 783m within City/ 1647m within MD	Formula for portion of Line cost based on length : 783/2430= 32% City portion of the line 1647/2430= 68% MD Share of the line 32% City Portion Share Formula City Total Area/ Developed Area= City Share (1605/2546=63%) X .32 =20% City Total Area/ Undeveloped Area= Developer Share (940/2546=37%) X .32=12%	Entire City and MD
10	69 Avenue- Hwy 28 to 16 Street Arterial	34.0%	46.0%	20.0%	When part of the road was within the City and the other portion within the MD then the length if the road determined the share each municipality would contribute. 783m within City/ 665m within MD	Formula for portion of Line cost based on length : 2430/783= 32% City portion of the line 2430/1647= 68% MD Share of the line 32% City Portion Share Formula City Total Area/ Developed Area= City Share (2546/1605=63%) X .32 =20% City Total Area/ Undeveloped Area= Developer Share (2546/940=37%) X .32=12%	Entire City & MD
11	69 Avenue- Hwy 28 to Glenwood- 4 Wing		100.0%			100% Developer	MD
12	Center Ave(Veterans Way)-57 Street to Hwy 28	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
13	Hwy 28- 54 Avenue to 52 Street		100.0%			City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
14	Hwy 28- 52 Street to 34 Avenue	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
15	Hwy 28- 34 Ave to South City Limits	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
16	Arterial 34 Avenue	63.0%	0.0%	37.0%		City Total Area/ Developed Area= City Share (1605/2546=63%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	Entire City
17	Arterial 34 Avenue to Veterans Way		100.0%		4 Wing costs proposed dangerous route within the 4 Wing area	100% other jurisdiction	Within 4 Wing
18	Collector -61 Avenue- 45-47th			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Entire City
19	Collector- 8th Street-16 Avenue to 20 Avenue- only 2 lane- prior bylaw was to 75th Avenue			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Entire City

		Allocation to Benefitting Parties					
Project #	Project Name	City Share % (existing development)	Other Stakeholders Share % (e.g. MD)	Offsite Levy / Developer Share % (new development)	Notes	Allocation Formula	Benefit Areas
Water	GL-1-4-41-00-760						
1	400mm WM- Lake Avenue to 8th Avenue along 28 Street/ English Bay Road	33.0%	50.0%	17.0%	Roads that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: City Zone 1 Total Area/ Developed Area= City Share X .5 (455/689=66%) X.5=33% City Total Area/ Undeveloped Area= Developer Share X.5 (234/689=34%) x.5=17%	Zone 1- (Areas 1, 2, 3, 4,5,6)
2	400mm WM- 26 Street to Edge of Annex Area 24- along 1st Avenue	52.0%	23.0%	25.0%	Oversize costs determined the portion the MD would be responsible for	Formula for Shares based on oversize $1,660,960-$1,275,380= $385,580/$1,660,960= 23%- MD portion costs for the line Cold Lake 77% - Portion of the costs formula: City Zone 1 Total Area/ Developed Area= City Share X .77 (455/689=66%) X.77=52% City Total Area/ Undeveloped Area= Developer Share X.77 (234/689=34%) x.77=25%	Zone 1 (Areas-1, 2, 3, 4,5,6) & MD
3	400mm WM Lake Ave to 1st Avenue- Area 2	66.0%		34.0%		City Zone 1 Total Area/ Developed Area= City Share (455/689=66%) City Zone 1 Area/ Undeveloped Area= Developer Share (234/689=34%)	Zone 1- (Areas 1, 2, 3, 4,5,6)
4	400mm WM - Run East/ West to 28 Street/ English Bay Road- Area 2		100.0%			100% Developer	MD
5	400mm WM- Run North/ South-MD Area 23/24		100.0%			100% Developer	MD
6	300mm WM-Pelican Rock to Golden Rod Gate-Creekside along 25th Street			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Area 2
7	400mm WM- run East West- MD Area 24- to Area 2 Northshore	22.0%	66.0%	11.0%	When part of the road was within the City and the other portion within the MD then the length if the road determined the share each municipality would contribute. 416m within City/ 811m within MD	Formula for portion of Line cost based on length : 416/1277= 34% City portion of the line 811/1277= 66% MD Share of the line 34% City Portion Share Formula Zone 1 Total Area/ Developed Area= City Share (455/689=66%) X .34 =22% Zone 1 Total Area/ Undeveloped Area= Developer Share (234/689=34%) X .32=11%	Zone 1 (Areas-1, 2, 3, 4,5,6) & MD
8	400mm WM- Along Hwy 28-28 Street/ English Bay Road to Reservoir/ Pump House in Area 2	33.0%	47.0%	20.0%	This line was based on the reservoir requirements share which was formulated based on the cost requirements for each jurisdiction would be their share and then Cold Lake's share was based on the benefitting zone or zones with the City share being the percent of land within the benefiting zone or zones and the developers share being the undeveloped land wtihin the benefitting zone or zones.	Formula for Shares based on reservoir costs $8,500,000/ $15,910,000= 53% City Portion $7,410,000/ $15,910,000= 47% - MD portion costs for the line Cold Lake 53% - Portion of the costs formula: City Total Area/ Developed Area= City Share X .53 (1605/2546=63%) X.53=33% City Total Area/ Undeveloped Area= Developer Share X.53 (940/2546=37%) x.53=20%	Entire City - for Interim & MD & **First Nations and Bonnyville-Ultimate**
9	Reservoir/ Pump House- Interim -	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
10	400mm WM- Runs East/ West- MD Area 23		100.0%			100% Developer	MD
11	400mm WM- Runs North/ South- West Side MD Area 23		100.0%			100% Developer	MD
12	400mm WM- Runs North/ South- East Side from Hwy 55 MD Area 23		100.0%			100% Developer	MD
13	400mm WM- Runs East/ West along 75 Avenue- Annex Area 22 to MD Area 13/ 14	14.0%	76.0%	10.0%		100% Developer	MD
14	400mm WM- within MD Area 22		100.0%			100% Developer	MD
15	400mm WM from 47th Street through to MD Area 15 along 69th Avenue	10.0%	83.0%	7.0%	Oversize costs determined the portion the MD would be responsible for within the City Limits	Formula for portion of Line cost based on length : 396/1752=23% Within City but oversize portion to be allocated to MD $1,162,560- 892,600=$269,960/$1,162,560= 23% 1356/1752= 77% MD portion of the line within MD + oversize 23% x.23= 5% Total MD share 77% +5%= 83% 17% City Share Formula Zone 3 Total Area/ Developed Area= City Share (841/1399=60%) X .17 =10% Zone 3 Total Area/ Undeveloped Area= Developer Share (557/1399=40%) X .17=7%	Zone 3- Areas 17,18,19,20,21 & MD
16	400mm WM- Runs North to South from Area 11 to MD Area 16		100.0%			100% Developer	MD
17	400mm WM from 45 Street to MD Area 16 along 54 Avenue	33.0%	45.0%	22.0%	Oversize costs determined the portion the MD would be responsible for within the City Limits	Formula for portion of Line cost based on length : 1038/1453=71% Within City but oversize portion to be allocated to MD $1,962,240- 1,506,720=$455,520/$1,962,240= 23% 415/1453= 29% MD portion of the line within MD + oversize 71% x.23= 16% Total MD share 29% +16%= 45% 55% City Share Formula Zone 3 Total Area/ Developed Area= City Share (841/1399=60%) X .55 =33% Zone 3 Total Area/ Undeveloped Area= Developer Share (557/1399=40%) X .55=22%	Zone 3- Areas 17,18,19,20,21 & MD

		Allocation to Benefitting Parties					
Project #	Project Name	City Share % (existing development)	Other Stakeholders Share % (e.g. MD)	Offsite Levy / Developer Share % (new development)	Notes	Allocation Formula	Benefit Areas
Water	GL-1-4-41-00-760						
18	400mm WM from 54 Avenue to 50 Avenue along Hwy 28/ 55 Street	60.0%	0.0%	40.0%		Zone 3 Total Area/ Developed Area= City Share (841/1399=60%) City Total Area/ Undeveloped Area= Developer Share (557/1399=40%)	Zone 3- 17, 18, 19, 20, 21
19	400mm- 43 Avenue to 45 Street in Area 19	60.0%	0.0%	40.0%		Zone 3 Total Area/ Developed Area= City Share (841/1399=60%) City Total Area/ Undeveloped Area= Developer Share (557/1399=40%)	Zone 3- 17, 18, 19, 20, 21
20	Distribution Pumps Upgrade- required for Ultimate Development -	31.5%	50.0%	18.5%	Roads that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: City Total Area/ Developed Area= City Share X .5 (1605/2546=63%) X.5=31.5% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=18.5%	Entire City & MD
21	Pressure Release Valve-Area 2- new WM from 25 Street to 16 Avenue	66.0%		34.0%		City Zone 1 Total Area/ Developed Area= City Share (455/689=66%) City Zone 1 Area/ Undeveloped Area= Developer Share (234/689=34%)	Zone 1- (Areas 1, 2, 3, 4,5,6)
22	Pressure Release Valve-MD Area 23		100.0%			100% Developer	MD
23	Pressure Release Valve-MD Area 23		100.0%			100% Developer	MD
24	Pressure Release Valve-MD Area 13		100.0%			100% Developer	MD
25	300mm 25th Street to 28 Street-			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Area 2
26	300mm from 61 Avenue to 54 Avenue- Meadows -	57.0%		43.0%		Joint Agreement has City Contribution 57% and Developer Contribution 43%	Area 17
27	NORTHSHORE LINE- 16 Street to Creekside along 16 Avenue			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	**Zone 1-** (1, 2, 3, 4,5,6) **Zone 2-** (7, 8, 9, 10, 11, 12)
28	Water Treatment Plant Upgrades for Population Growth	28.0%	56.0%	17.0%	WTP- is RUSC- based on population supported- 44% is City and 56% is based on populations supported by First Nations, 4 Wing and MD	Cold Lake 44% - Split of the costs formula: City Total Area/ Developed Area= City Share X .44 (1605/2546=63%) X.44=28% City Total Area/ Undeveloped Area= Developer Share X.44 (940/2546=37%) x.44=17%	Whole City, 4 Wing, First Nations and MD share
29	Clear Well Expansion		100.0%			100% Developer	Regional Expansion requirement- MD, Town of Bonnyville & First Nations
30	61st Avenue- 300mm Waterline			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Zone 17 and 14
31	54th Avenue- 51 Street to 49 Street			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Zone 3- 17, 18, 19, 20, 21 - within the City
32	Line to Imperial Park			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Zone 2 and 3- within the City
33	Bldg 5 Reservoir Improvements			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Whole City
34	Reservoir/ Pump House- Ultimate -		100.0%			100% Developer	MD
35	CLRUSC- Reservoir for Regional Waterline		100.0%			100% Developer	Regional Waterline to Bonnyville & MD

		Allocation to Benefitting Parties					
Project #	Project Name	City Share % (existing development)	Other Stakeholders Share % (e.g. MD)	Offsite Levy / Developer Share % (new development)	Notes	Allocation Formula	Benefit Areas
Sewer	GL-1-4-42-00-760						
1	Building 3	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
2	Building 4	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
3	Building 8	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
4	Building 9	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
5	Building 9	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
6	New Liftstation B	30.0%	50.0%	20.0%	Lift Stations that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: Bldg 9 Zone-Total Area/ Developed Area= City Share X .5 (1013/1700=60%) X.5=30% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=20%	Bldg 9 Zone- Areas 11,12,17,18,19,20,21 & MD
7	New Liftstation G	30.0%	50.0%	20.0%	Lift Stations that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: Bldg 9 Zone-Total Area/ Developed Area= City Share X .5 (1013/1700=60%) X.5=30% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=20%	Bldg 9 Zone- Areas 11,12,17,18,19,20,21 & MD
8	New Liftstation B Forcemain	30.0%	50.0%	20.0%	Forcemains with lift Stations that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: Bldg 9 Zone-Total Area/ Developed Area= City Share X .5 (1013/1700=60%) X.5=30% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=20%	Bldg 9 Zone- Areas 11,12,17,18,19,20,21 & MD
9	New Liftstation G Forcemain	30.0%	50.0%	20.0%	Forcemains with lift Stations that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: Bldg 9 Zone-Total Area/ Developed Area= City Share X .5 (1013/1700=60%) X.5=30% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=20%	Bldg 9 Zone- Areas 11,12,17,18,19,20,21 & MD
10	375mm SM- - Along 28 Street/ English Bay Road from 1st Ave to Junction of 28 Street/ English Bay Road	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) **Bldg 1 & 3 feed to Bldg 4**
11	450mm at Junction of 28 Street/ English Bay Road	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) **Bldg 1 & 3 feed to Bldg 4**
12	675mm Along 28 Street/ English Bay Road-junction to end of Quarter Section	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) **Bldg 1 & 3 feed to Bldg 4**
13	750mm Along 28 Street/ English Bay Road end of Quarter Section to Building 4	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) **Bldg 1 & 3 feed to Bldg 4**
14	375mm From Wildrye Cres to Future 25 Street Junction	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) **Bldg 1 & 3 feed to Bldg 4**
15	450mm SM Along 7 Avenue from URW to Pheasant Cresent	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) **Bldg 1 & 3 feed to Bldg 4**
16	450mm SM- from 12 Street Along 12 Avenue to 10 Street and up 10 Street to 10 Avenue	91.0%		9.0%		Bldg 3 Zone Total Area/ Developed Area= City Share (217/238=91%) Bldg 3 Zone Total Area/ Undeveloped Area= Developer Share (21/238=9%)	**Bldg 3-** (5,6,7,8,9 &10)
17	375mm SM running East and West from Area 12-Bottom of Uplands to MD Area 13		100.0%			100% Developer	MD
18	675mm SM from Bldg 6- 75 Ave- Phase 1(2112m)-then Phase 2-75 Avenue to Bldg 9- through MD Area 14 & Area 17-(3715m) Forest Heights	30.0%	50.0%	20.0%	Lift Stations that border the MD were a 50/50 split between the two municipalities.	Cold Lake 50% - Split of the costs formula: Bldg 9 Total Area/ Developed Area= City Share X .5 (1012/1700=60%) X.5=30% Bldg 9 Total Area/ Undeveloped Area= Developer Share X.5 (687/1700=40%) x.5=20%	**Bldg 9-** (11,12,17,18,19,20,21) & MD
19	525mm SM East/ West in MD Area 14		100.0%			100% Developer	MD
20	750mm- North/ South in MD Area 22 to Future Lift Station B		100.0%			100% Developer	MD

		Allocation to Benefitting Parties					
Project #	Project Name	City Share % (existing development)	Other Stakeholders Share % (e.g. MD)	Offsite Levy / Developer Share % (new development)	Notes	Allocation Formula	Benefit Areas
Sewer	GL-1-4-42-00-760						
21	375mm SM - Tri City Mall	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
22	450mm SM From 61 Avenue to 57 Avenue behind Meadows	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
23	525mm SM from 57 Avenue behind Meadows to 54 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
24	900mm from 55 Street/ Hwy 28 to 49 Street- north of 54 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
25	1050mm From 49 Street to Building 9- north of 54 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
26	600mm Along 47 Street from Building 9 to 51 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
27	600mm Along 54 Avenue from Building 9 to 45 Street	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
28	375mm Along 45 Street from 53 Avenue to 47 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
29	375mm Along 53 Avenue from 45 Street to 54 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
30	375mm Along 50 avenue from 47 Street to 45 Street	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
31	525mm- Area 19 from 40 Avenue to 43 Avenue and along 43 Avenue	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
32	375mm- From Red Fox including Fischer Extension to 38 Avenue on East Side Hwy 28 Commercial Lane	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
33	450mm from Lift Station C into Area 19	60.0%		40.0%		Bldg 9 Zone-Total Area/ Developed Area= City Share (1013/1700=60%) City Total Area/ Undeveloped Area= Developer Share (940/2546=37%)	**Bldg 9-** (11,12,17,18,19,20,21) Within City
34	525mm connection for forcemain from Lift Station C to Lift Station G	30.0%	50.0%	20.0%		Cold Lake 50% - Split of the costs formula: Bldg 9 Zone-Total Area/ Developed Area= City Share X .5 (1013/1700=60%) X.5=30% City Total Area/ Undeveloped Area= Developer Share X.5 (940/2546=37%) x.5=20%	**Bldg 9 Zone-** Areas 11,12,17,18,19,20,21 & MD
35	600mm- 7th Avenue to 28 Street/ English Bay Road	57.0%		43.0%		Bldg 4 Zone Total Area/ Developed Area= City Share (307/539=57%) Bldg 4 Zone Total Area/ Undeveloped Area= Developer Share (231/539=43%)	**Bldg 4-** (1,2 & 4) Bldg 1 & 3 feed to Bldg 4
36	Parkbridge Servicing Project-	57.0%		43.0%		Joint Agreement has City Contribution 57% and Developer Contribution 43%	**Bldg 9-** (11,12,17,18,19,20,21) Within City
37	Mechanical Treatment Plant	63.0%		37.0%		City Total Area/ Developed Area= City Share (2546/1605=63%) City Total Area/ Undeveloped Area= Developer Share (2546/940=37%)	Entire City
38	43rd Avenue- Sanitary	78.0%		22.0%		Joint Agreement has City Contribution 78% and Developer Contribution 22%	**Bldg 9-** (11,12,17,18,19,20,21) Within City
39	Bldg 3 Liftstation & Forcemain			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	***Whole City***
40	Bldg 1 Liftstation and Forcemain to Hospital			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	***Whole City***
41	Bldg 9 -Forcemain to the Lagoon			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	***Whole City***

		Allocation to Benefitting Parties					
Project #	Project Name	City Share % (existing development)	Other Stakeholders Share % (e.g. MD)	Offsite Levy / Developer Share % (new development)	Notes	Allocation Formula	Benefit Areas
Storm	GL-1-43-70-760 and GL-1-43-70-00-763						
1	Meadows Drainage Parkway	41.0%	47.0%	12.0%	Shares based on Area- within each jursidiction	Formula for portion of parkway cost based on area : 453/851= 53% City portion of the line 398/851= 47% MD Share of the line 53% City Portion Share Formula Meadow Zone Total Area/ Developed Area= City Share (352/453=78%) X .53 =41% Meadow Total Area/ Undeveloped Area= Developer Share (101/453=22%) X .53=12%	Areas 17 & 21- within the City & MD
2	Palm Creek Drainage Parkway	31.0%	48.0%	21.0%	Shares based on Area- within each jursidiction	Formula for portion of parkway cost based on area : 788/1507= 52% City portion of the line 719/1507= 48% MD Share of the line 52% City Portion Share Formula Palm Creek Zone Total Area/ Developed Area= City Share (477/796=60%) X .52 =31% Palm Creek Total Area/ Undeveloped Area= Developer Share (379/796=40%) X .52=21%	Areas 2, 6, 7, 9, 11, 20 & MD
3	Fischer Estates Pond			100.0%	As per offsite levy bylaw 281-DA-07	100% Developer	Area 19- Within the City

APPENDIX G: BENCHMARK COMPARISONS

The table below compares the weighted average offsite levy rate in the City to rates in other municipalities.

Municipality / Area	Average Per Ha.
Town of Hinton	$56,000
MD of Peace (Westhill)* (in process) (water & sewer only)	$63,400
Town of Drumheller* (in process) (not incl drainage)	$65,300
Town of Sylvan Lake*	$65,500
Town of Stony Plain (2007)	$69,000
Town of Drayton Valley* (in process) (not incl drainage)	$70,000
City of Fort Saskatchewan LM Industrial Area* (in process)	$72,000
City of Lacombe*	$72,500
Town of Blackfalds	$75,000
Lac La Biche County* (not incl drainage)	$77,400
Town of Edson* (not incl drainage)	$77,400
Town of Rocky Mountain House* (in process)	$79,700
Sturgeon County Industrial Park*	$80,700
Town of Peace River*	$83,400
Town of Okotoks (being updated)	$85,000
Town of Strathmore	$93,300
Red Deer County (Gasline Alley)	$96,500
Leduc County* (2009)	$106,300

Municipality / Area	Average Per Ha.
City of Cold Lake* (not incl RUSC projects)	$107,340
Town of Redcliff* (in process)	$109,200
Town of Devon*	$116,200
City of Leduc*	$117,500
Town of High River	$130,000
City of Cold Lake*	$137,144
Town of Beaumont*	$161,000
Town of Cochrane	~$180,000
City of Red Deer	$203,300
City of Lethbridge	$249,000
City of Medicine Hat* (subsidy)	$250,000
City of Lloydminster* (in process)	$281,800
City of St. Albert*	$290,000
City of Edmonton	+$300,000
City of Calgary	+$350,000
MD of Bonnyville	Development agreement only. Bylaw being considered
Town of Wainright	Not current
City of Brooks	Not current

*CORVUS Clients.
**All rates estimated from available sources.

APPENDIX H: RESERVE RECONCILIATION

The table below, provided by City staff, summarizes details associated with the City's offsite levy reserve/account from 2003 to 2015.

Reserve Reconciliation

OFFSITE LEVIES- CITY OF COLD LAKE	Roads	Storm	Pond	Water	Sewer	Committed	Year end balance
	14200760	14200760	14200760	14410760	14420760		
Balance 2003		273,666.84		188,796.83	177,872.18		
Additions 2004		157,672.94		64,679.69	74,022.17		
deletions		0.00		0.00	0.00		
Balance 2004	0.00	431,339.78		253,476.52	251,894.35		936,709.65
Additions 2005		161,002.96		66,901.49	75,944.82		
Deletions	0.00			0.00	0.00		
43rd ave storm sewer servicing Plan		-35,157.97					
Balance 2005	0.00	557,184.82		320,377.01	327,839.17		1,205,201.00
Additions 2006	16,375.97	144,652.15		42,141.27	45,068.35		
deletions	0.00	0.00		0.00	0.00		
Balance 2006	16,375.97	701,836.97		362,448.28	372,925.52		1,437,210.77
Additions 2007	439,253.36	200,437.49	60,722.62	207,913.59	190,441.16		
Deletions		0.00					
Portbridge servicing project				-221,296.00	-271,521.43		
Design 16 ry/16 ave/66 ave	-71,769.55						
Balance 2007	383,859.68	902,274.45	60,722.62	299,065.87	291,845.25		2,010,668.84
Addition 2008	155,289.96	95,550.97	112,375.39	54,125.20	41,142.61		
Deletions		0.00	0.00				
Portbridge servicing project				-88,163.00	-103,496.00		
66th Ave	-349,415.20						
Storm Pond						175,000.00	
Balance 2008	189,773.44	1,027,825.42	173,098.01	264,928.71	232,491.76		1,929,116.36
Additions 2009	97,649.97	17,292.76	9,201.06	26,691.69	19,150.06		
Deletions	0.00	0.00	0.00	0.00	0.00		
Storm Pond						175,000.00	
Balance 2009	287,423.31	1,045,118.18	181,400.07	291,620.40	251,641.81		2,056,190.80
Additions 2010	224,274.84	22,845.09	27,670.20	72,059.15	57,665.66		
Deletions							
hornhshore variance				-440,259.55			
Storm Pond						175,000.00	
Balance 2010	512,697.15	1,067,963.27	209,070.27	-36,591.00	309,306.50		1,997,646.19
Additions 2011	286,169.67	30,979.00	11,069.09	87,190.54	48,913.00		
Deletions							
25th smear variance				-29,101.00			
Storm Pond						175,000.00	
Balance 2011	798,866.77	1,098,942.30	220,139.35	6,498.54	358,419.50		2,307,764.46
Additions 2012	426,972.56	21,550.00	0.00	120,675.00	137,443.61		841,560.20
Deletions							
Forest Heights					-87,269.58	267,691.42	
Storm Pond						175,000.00	
67th main (66ave-70ave)	-74,412.00					675,569.00	
Balance 2012	1,211,427.33	1,120,592.30	220,139.35	269,173.54	413,493.53		3,167,547.09
Additions 2013	325,600.44	13,347.96	9,380.90	117,713.04	174,263.15		640,535.49
Deletions							
Palms water				-22,602.14			
Forest Heights					-110,670.62	156,920.80	
Fischer Storm Pond				-97,867.00		77,002.97	
67th main (66ave-70ave)	-675,569.00					0.00	
Balance 2013	863,658.77	1,133,940.26	229,520.25	266,224.44	477,086.06		2,667,291.01
Additions 2014	1,097,643.46	2,418.75	0.00	496,049.01	371,294.26		1,991,471.91
Deletions							
Forest Heights					-20,444.00	136,490.80	
Fischer Storm Pond						77,002.97	
Balance 2014	1,961,302.23	1,137,359.01	229,520.25	762,273.45	828,832.32		4,658,763.92
Additions 2015	397,690.31		2,605.74	160,169.65	126,703.73		
Deletions							
61 ave smart road (45-47 st)	-266,379.00			-113,019.00		220,600.00	
61 ave smart road (45-47 st)	-690,000.00			-150,000.00			
25th ave smart road engineering recreation lot	-91,600.00					208,200.00	
endeavor Palms water 25th ave variance				-107,747.96			
endeavor Innovative living 25th ave variance				-69,747.59			
Forest Heights						136,490.80	
Fischer Storm Pond						77,002.97	
Balance 2015	1,210,824.54	1,137,359.01	232,126.99	531,950.16	955,746.15		4,072,056.85
						642,293.77	Includes committed