

THE CITY OF CHESTERMERE

PROVINCE OF ALBERTA

BYLAW No. 013-21

A BYLAW OF THE CITY OF CHESTERMERE, IN THE PROVINCE OF ALBERTA, TO ESTABLISH OFF-SITE LEVIES FOR LAND THAT IS TO BE SUBDIVIDED OR DEVELOPED WITHIN THE CITY OF CHESTERMERE

WHEREAS:

- A. Section 648 of the *Municipal Government Act* allows Council to pass a bylaw for the imposition and payment of off-site levies in respect of land that is to be developed or subdivided;
- B. Council deems it necessary and expedient to collect Off-Site Levies to pay for the capital cost of infrastructure required to service the Growth of the City;
- C. The City has engaged in consultation with landowners and representatives of the development industry to address and define existing and future infrastructure required for Growth of the City and the allocation of the capital costs of such infrastructure;
- D. Council has received the Report, which set out a fair and equitable calculation of Off-Site Levies in accordance with the *Municipal Government Act* and the Off-Site Levy Regulation;
- E. Council has advertised its intention to consider the enactment of this Bylaw pursuant to the requirements of the *Municipal Government Act*;

NOW THEREFORE, Council duly assembled, enacts as follows:

1. Name of Bylaw

This Bylaw shall be known and referred to as the "Chestermere Off-Site Levy Bylaw".

2. Definitions

The following terms shall have the following meanings in this Bylaw:

- (a) "Bylaw" means this off-site levy bylaw;
- (b) "Chief Administrative Officer" means the chief administrative officer for the City, regardless of the specific title that may be conferred on that officer from time to time;
- (c) "City" means the City of Chestermere;

- (d) “Council” means the council for the City;
- (e) “Developable Land” means all land contained within the Development Area:
 - (i) upon which Development takes place after the date of enactment of this Bylaw; or
 - (ii) for which Subdivision approval is obtained after the date of enactment of this Bylaw;excluding all Developed Land;
- (f) “Developed Land” means land that has been subject to Development or a Subdivision prior to the date this Bylaw comes into force, and in respect of which off-site levies for the same infrastructure have been paid;
- (g) “Development” means “development” as defined in the *Municipal Government Act*;
- (h) “Development Agreement” means “development agreement” as referred to in the *Municipal Government Act*;
- (i) “Development Area” includes the area of land within the municipal boundaries of the City identified in Schedule “A” to this Bylaw;
- (j) “Growth” means:
 - (i) the creation of new Lots through Subdivision; and
 - (ii) the occurrence of Development;
- (k) “Lot” means “lot” as defined in the *Municipal Government Act*;
- (l) “*Municipal Government Act*” means the *Municipal Government Act*, RSA 2000, c. M 26, as amended or repealed and replaced from time to time;
- (m) “Off-Site Infrastructure” means those components and projects referred to in the Report, in relation to water facilities, sanitary sewer facilities, storm water sewer facilities, transportation facilities, recreation facilities, and library facilities to be paid for in whole or in part by Off-Site Levies under the Bylaw;
- (n) “Off-Site Levies” means the off-site levies imposed pursuant to this Bylaw;
- (o) “Off-Site Levy Regulation” means the *Principles and Criteria for Off-Site Levies Regulation*, Alta. Reg. 46/2004, as amended or repealed and replaced from time to time;

- (p) “Report” means the City of Chestermere: Offsite Levy Rates Update, June 4, 2021, prepared by Corvus Business Advisors, attached as Schedule “C” to this Bylaw;
- (q) “Subdivision” means “subdivision” as defined in the *Municipal Government Act*.

3. **Object of Levy**

The object of the Off-Site Levies is to provide funds to pay for all or part of the capital costs of the Off-Site Infrastructure required for Growth, as determined in the Report.

4. **Imposition of Levy**

- (a) The Off-Site Levies are hereby established and imposed in respect of all Developable Land on the basis set out in the Report.
- (b) The amount of the Off-Site Levies imposed is as calculated in the Report and set out in Schedule “B”.
- (c) The Off-Site Levies will be assessed on all Developable Land on a per hectare basis, excluding those portions of Developable Land that are designated pursuant to a Subdivision as:
 - (i) environmental reserve;
 - (ii) school reserve;
 - (iii) municipal reserve; or
 - (iv) arterial road right of way.
- (d) Unless otherwise agreed, payment of Off-Site Levies imposed under this Bylaw is due:
 - (i) in the case of Subdivision, at or prior to plan endorsement; and
 - (ii) in the case of Development, as a condition of the issuance of the development permit.

5. **Authority of the Chief Administrative Officer**

- (a) The Chief Administrative Officer is delegated the authority to enforce and administer this Bylaw, including, but not limited to the authority to:
 - (i) enter into Development Agreements on behalf of the City with respect to, among other things, the collection of Off-Site Levies;

- (ii) defer or waive collection of Off-Site Levies imposed pursuant to this Bylaw; and
 - (iii) require security for payment of any deferred levies.
- (b) The Chief Administrative Officer may delegate the authority to enforce and administer this Bylaw.

6. Development Agreement

- (a) Council may, from time to time adopt policies or guidelines for the assistance and direction of the Chief Administrative Officer in determining which Development and Subdivision applications require a Development Agreement.
- (b) Where it is determined that a Development Agreement is appropriate for any application for Development or Subdivision, the developer or the owner, as the case may be, shall enter into a Development Agreement with the City that provides for the payment of Off-Site Levies in accordance with this Bylaw or that provides for the deferral of Off-Site Levies, including requiring security for the payment of such deferred levies.

7. Annual Report

On or before December 31 in each calendar year, the Chief Administrative Officer shall provide an annual report to Council regarding the Off-Site Levies imposed under this Bylaw, including:

- (a) Off-Site Infrastructure constructed during the previous calendar year;
- (b) Construction costs of Off-Site Infrastructure constructed in the previous calendar year;
- (c) Estimated construction costs for Off-Site Infrastructure yet to be constructed and an explanation as to any adjustments to the estimates since the previous annual report;
- (d) Amount collected in Off-site Levies; and
- (e) Specifics of total value of Off-site Levies being held by City and yet to be expended on Off-Site Infrastructure, interest earned and commitments for future expenditures of such monies.

8. Accounting

All funds collected pursuant to this Bylaw shall be accounted for in a special fund for each category of infrastructure and expended only as permitted under the *Municipal Government Act*.

9. **Review**

The City shall review the rates for Off-Site Levies annually and, if required, shall amend this Bylaw accordingly to update the rates for Off-Site Levies.

10. **General**

- (a) Nothing in this Bylaw precludes the City from:
 - (i) imposing further or different levies, duly enacted by bylaw, on any portion of the Developable Lands in respect of which the City has not collected Off-Site Levies;
 - (ii) deferring collection of Off-Site Levies on any portion of Developable Lands, including requiring security for payment of such deferred levies; or
 - (iii) reducing or forgiving payment of the Off-Site Levies required pursuant to this Bylaw, or otherwise providing for credits for other Off-Site Infrastructure or oversize infrastructure constructed by a developer in calculating and/or collecting the Off-Site Levies that become payable pursuant to this Bylaw.
- (b) Schedules "A" and "B" to this Bylaw, and specifically, without restricting the generality of the foregoing, the rates for Off-Site Levies set out in the Report, may be updated or amended from time to time by resolution of Council.
- (c) In the event that any provision of this Bylaw is declared invalid or void by any Court having competent jurisdiction, then such invalid or void provision shall be severed from the Bylaw and the remaining provisions of the Bylaw shall be maintained and deemed valid.

11. **Transition**

- (a) This Bylaw applies to:
 - (i) any Subdivision where the date of subdivision approval occurs on or after the date this Bylaw comes into force; and
 - (ii) any Development where the date of issuance of a development permit occurs on or after the date this Bylaw comes into force.
- (b) Development Agreements entered into prior to the enactment of this Bylaw shall remain valid and in effect.
- (c) Any off-site levies payable under Development Agreements entered into prior to the enactment of this Bylaw, are confirmed and shall continue to be

payable notwithstanding the repeal of previous off-site levy bylaws pursuant to subsection (d).

- (d) Bylaw 005-19, Bylaw 006-19, Bylaw 007-19, and Bylaw 008-19 are hereby repealed.

12. **Execution**

This Bylaw shall take effect and come into force effective after final reading and signature thereof by the Chief Elected Official and Chief Administrative Officer, or their authorized delegates.

READ A FIRST TIME this 15th day of June, 2021.

READ A SECOND TIME this 20th day of July, 2021.

READ A THIRD TIME this 20th day of July, 2021.



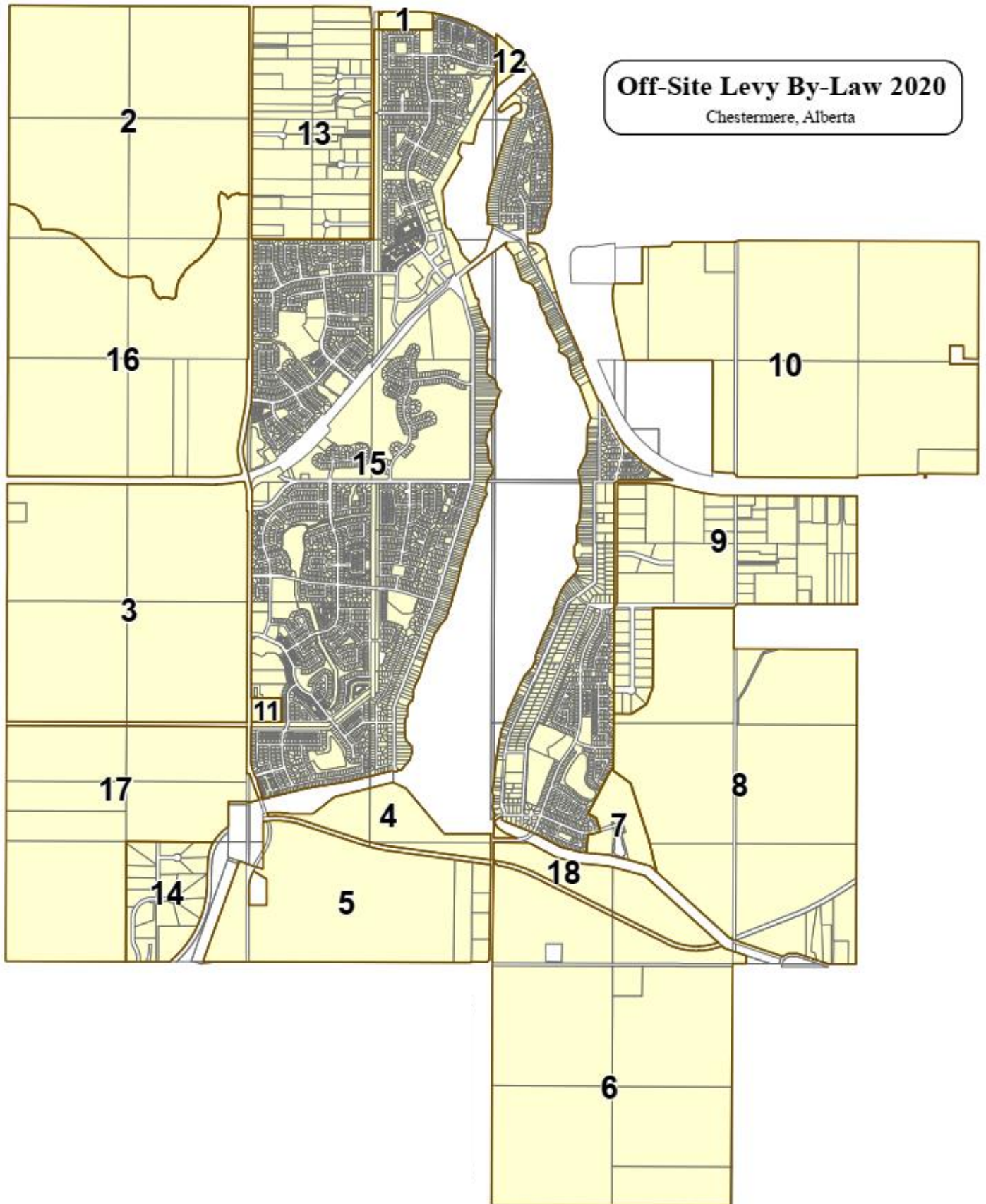
MAYOR



CAO

SCHEDULE A

Map of Development Area



SCHEDULE B

Summary by Development Area

Area	Off-Site Levy per Hectare					
	Water	Sanitary	Storm	Transportation	Recreation	Total
1.	\$32,495	\$40,439	\$-	\$63,758	\$41,808	\$178,500
2.	\$32,495	\$157,748	\$21,664	\$63,758	\$41,808	\$317,473
3.	\$32,495	\$60,141	\$20,464	\$63,758	\$41,808	\$218,666
4.	\$32,495	\$40,439	\$-	\$63,758	\$41,808	\$178,500
5.	\$32,495	\$40,439	\$11,129	\$63,758	\$41,808	\$189,629
6.	\$32,495	\$75,663	\$11,129	\$63,758	\$41,808	\$ 224,853
7.	\$32,495	\$29,781	\$-	\$63,758	\$41,808	\$167,842
8.	\$32,495	\$75,663	\$20,201	\$63,758	\$41,808	\$233,925
9.	\$32,495	\$75,663	\$20,201	\$63,758	\$41,808	\$233,925
10.	\$32,495	\$79,808	\$32,251	\$63,758	\$41,808	\$250,120
11.	\$32,495	\$40,439	\$-	\$63,758	\$41,808	\$178,500
12.	\$32,495	\$29,781	\$-	\$63,758	\$41,808	\$167,842
13.	\$32,495	\$157,748	\$21,664	\$63,758	\$41,808	\$317,473
14.	\$32,495	\$40,439	\$17,354	\$63,758	\$41,808	\$195,854
15.	\$32,495	\$29,781	\$-	\$63,758	\$41,808	\$167,842
16.	\$32,495	\$73,652	\$21,664	\$63,758	\$41,808	\$233,377
17.	\$32,495	\$40,439	\$11,927	\$63,758	\$41,808	\$190,427
18.	\$32,495	\$75,663	\$33,049	\$63,758	\$41,808	\$246,773

SCHEDULE C

**City of Chesteremere: Offsite Levy Rates Update, June 4, 2021, prepared by
CORVUS Business Advisors**



City of Chestermere: Update of Offsite Levy Rates

June 4th, 2021

Prepared by:

Greg Weiss, President
CORVUS Business Advisors
9670 – 95 Avenue
Edmonton, AB T6C 2A4
(780) 428-4110

gweiss@corvusbusinessadvisors.com

www.corvusbusinessadvisors.com



June 4th, 2021

City of Chestermere
105 Marina Road
Chestermere, Alberta
T1X 1V7

RE: City of Chestermere Update of Offsite Levy Rates

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

Yours truly,

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

Greg Weiss
President

1 DOCUMENT INFORMATION

Version Number	Revision Date	Summary of Changes and Author
1.0	May 21 st , 2020	Final. Including 2018 actuals.
2.0	July 27 th , 2020	Final. Including 2018 actuals.
3.0	November 24 th , 2020	Amended to include 2019 actuals.
4.0	May 11 th , 2021	Final. Including amended project details, staging, etc.
5.0	June 4 th , 2021	Final. Amended project details.

2 CONTENTS

1	DOCUMENT INFORMATION	I
2	CONTENTS	II
3	INTRODUCTION	1
3.1	INTRODUCTION	1
3.2	METHODOLOGY	1
4	KEY FINDINGS	2
5	RATES	4
6	RECOMMENDATIONS	5
7	ACKNOWLEDGEMENTS	6
8	DISCLAIMER	6
	APPENDIX A: OFFSITE LEVY AREAS AND STAGING	7
	APPENDIX B: WATER OFFSITE INFRASTRUCTURE	14
	APPENDIX C: SANITARY OFFSITE INFRASTRUCTURE	21
	APPENDIX D: TRANSPORTATION OFFSITE INFRASTRUCTURE	28
	APPENDIX E: STORMWATER OFFSITE INFRASTRUCTURE	39
	APPENDIX F: RECREATION OFFSITE INFRASTRUCTURE	46

3 INTRODUCTION

3.1 Introduction

Bylaws 05-19, 06-19, 07-19, and 08-19 amended by the City of Chestermere (“the City”) in 2019 define offsite levy charges for roads, water/sanitary, stormwater, and recreation infrastructure in the municipality. The City wishes to update these bylaws, amending certain infrastructure in alignment with the City’s current capital plans, ensuring updated costs and development forecasts are reflected fairly and equitably in rates, and amending other key inputs and variables thereby ensuring a financially sustainable community.

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

3.2 Methodology

The City maintains various capital plans, and these plans have been used to generate key inputs for this offsite levy rates review. City staff and their engineering advisors reviewed existing plans and identified offsite projects for roads, water, sanitary, stormwater, and recreation¹. The City’s review also included determination of benefits to existing development, future development, benefiting areas, etc.

Support provided by CORVUS Business Advisors included:

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

Offsite levy rates within the City’s offsite levy model are forecast using a rolling 25-year review period. During this review, a cut-off date of **December 31st, 2019** was established (the most recent year-end when the project commenced), and so the 25-year review period stems from **2020 to 2044**. Project expenditures, offsite levy receipts etc. were gathered as “actuals” from City financial records up to the cut-off date. Beyond the cut-off date, all financial details are estimates. When the City completes its next rate update, information from January 1st, 2020 up to the new cut-off date will be converted from estimates to actuals.

Costs that benefit development prior to and within the review period are included in rates. Costs that benefit development beyond the review period (called “financial oversizing”) are

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

excluded from rates. In future years, when rates are updated, and the rolling 25-year period moves further out, offsite infrastructure costs beyond **2044** will gradually find their way into rates.

4 KEY FINDINGS

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

- Offsite infrastructure costs to be included in the offsite levy bylaw total approximately **\$441.97 million** (current dollars). An overview of offsite infrastructure costs and maps is provided in Appendices B1, C1, D1, E1, and F1.

Before determining how the infrastructure costs will be allocated to parties that benefit (e.g., existing development, new development, other municipalities etc.), financing provided by way of special ear-marked grants and other contributions are deducted from offsite infrastructure costs. For this update, the City has identified approximately **\$16.92 million** in special grants and contributions. An overview of special grants and contributions and resulting net costs is provided in Appendices B2, C2, D2, E2, and F2.

The residual benefit allocated to existing development (the City's share) is approximately **\$43.60 million**. The share allocated to other stakeholders (e.g., neighbouring municipalities) is **\$0.00**.

That portion of cost which is allocated to future development totals approximately **\$381.44 million** (\$174.49 million + \$206.95 million) and is based on the allocations shown in Appendices B4, C4, D4, E4, and F4. However, a portion of the cost allocated to future development is beyond the 25-year review period (called "financial oversizing"). Financial oversizing is determined based on the anticipated year of construction (construction staging) which is provided in Appendices B3, C3, D3, E3, and F3.

Of the **\$381.44 million** in total offsite infrastructure costs allocated to future development, the share allocated to future development that is included in rates today (the offsite levy share) is approximately **\$206.95 million**, as shown in the table below. A complete summary of offsite infrastructure net cost "flow-thru" is provided in Appendices B6, C6, D6, E6, and F6.

Summary of Infrastructure Costs & Allocations

Infrastructure	Special Grants & Contributions	Muni Share of Costs	Other Stakeholders' Share of Costs	Developer Cost Beyond 25 Yrs (Financial Oversizing)	Developer Costs (In Rates)	Total Costs
Transportation	\$ 9,467,146	\$ 4,560,000	\$ -	\$ 81,893,200	\$ 58,754,434	\$ 154,674,780
Water	\$ 1,850,941	\$ -	\$ -	\$ 20,450,412	\$ 36,215,952	\$ 58,517,305
Sanitary	\$ 3,361,781	\$ 10,280,436	\$ -	\$ 29,877,432	\$ 56,565,763	\$ 100,085,412
Stormwater	\$ -	\$ -	\$ -	\$ 17,677,360	\$ 17,435,040	\$ 35,112,400
Recreation	\$ 2,243,290	\$ 28,763,362	\$ -	\$ 24,593,878	\$ 37,978,571	\$ 93,579,100
Total	\$ 16,923,157	\$ 43,603,798	\$ -	\$ 174,492,281	\$ 206,949,761	\$ 441,968,997

Before allocating infrastructure costs to benefitting lands, offsite levy costs must be

reduced by the amount of levies collected to date. Up to December 31st, 2019, the City has collected **\$22.69 million** as shown in Appendices B5, C5, D5, E5, and F5.

Summary of Offsite Levy Collections

Levies Collected To Cut-off Date	
Transportation	\$ 5,527,206
Water	\$ 8,907,225
Sanitary	\$ 7,204,515
Stormwater	\$ 745,886
Recreation	\$ 305,200
Library	\$ -
Total	\$ 22,690,032

- To facilitate the allocation of infrastructure costs to those lands that benefit from the infrastructure, the City is parsed into **18** offsite levy areas. The area boundaries, numbering schema, and area measurements are described in Appendix A along with an offsite levy map; and, an overview of offsite infrastructure allocations to each benefitting area is provided in Appendices B7, C7, D7, E7, and F7.
- 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 update, the City is forecasting development of approximately **835 ha.** over the 25-year review period. The land development forecast and underpinning assumptions are shown in Appendix A. This is a reduction since the last update and a key driver underpinning the increase in rates (discussed further below).

- **Offsite Levy Accounts.** The City is managing offsite levy receipts and withdrawals via 5 accounts, in alignment with MGA requirements (i.e., one account for each infrastructure type). The reason that an account is required for each infrastructure type is because offsite levies can only be used for the type of infrastructure for which they were collected (e.g., water levies can only be used to construct water offsite infrastructure, not sanitary infrastructure etc.). An overview of updated account balances is shown in Appendices B8, C8, D8, E8, and F8.
- **Interest.** Offsite levy accounts (both actual and forecast) are impacted by interest. Actual reserve inflows and forecast account balances that are in a positive position earn interest (as required by the MGA). Actual reserve outflows and forecast account balances that are in a negative position are charged interest (forecast balances that are negative indicate that front-ending will be required).

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

- **Front-ending.** Front-ending is an extremely important concept that underpins rigorous management of offsite levies. Front-ending represents debts owed by future development to the municipality for past construction undertaken by the municipality on behalf of future development—i.e., a municipality will often pay for its share of an offsite infrastructure project in addition to that portion of the project which benefits future development when offsite levy reserve balances are insufficient to pay for future development’s share of the project.

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

At end 2019, the overall net front-ending due to the City was **\$38.19 million**. A complete reconciliation of balances for each of the 5 accounts is provided in Appendices B8, C8, D8, E8, and F8.

Summary of Account Balances & Front-ending

Account/Reserve	Account Balance	Front-ending Due
Transportation	\$ 1,370,228	\$ -
Water	\$ (7,166,721)	\$ 7,166,721
Sanitary	\$ (31,026,985)	\$ 31,026,985
Stormwater	\$ 777,889	\$ -
Recreation	\$ 2,619,289	\$ -
Library	\$ -	\$ -
Total	\$ (33,426,300)	\$ 38,193,706

5 RATES

For future development to pay for its share of the **\$441.97 million** infrastructure costs either built already or contained in the City’s future capital plans, rates are **\$226,976 per net hectare** on a weighted average basis. These rates reflect the actual cost of infrastructure required to facilitate development in the City.

Since the last update, rates have increased from an average of **\$219,638 per net hectare** to **\$226,976 per net hectare**. The primary reason for this increase is the reduction in forecast land development within the 25-year review period—the land development forecast has decreased **6.9%** from **897 hectares** to **835 hectares**. Less land development means higher rates all other things being equal.

Summary of Offsite Levy Charges (Per Net Ha) ^{2, 3}

	Transportation Charges	Water Charges	Sanitary Charges	Storm Charges	Recreation Charges	Total
High	\$ 63,758	\$ 32,495	\$ 157,748	\$ 33,049	\$ 41,808	\$ 317,473
Low	\$ 63,758	\$ 32,495	\$ 29,781	\$ -	\$ 41,808	\$ 167,843
Weighted Average	\$ 63,758	\$ 32,495	\$ 69,044	\$ 19,871	\$ 41,808	\$ 226,976

Area #	Transportation Levies	Water Levies	Sanitary Levies	Stormwater Levies	Recreation Levies	Total
1	\$ 63,758	\$ 32,495	\$ 40,439	\$ -	\$ 41,808	\$ 178,500
2	\$ 63,758	\$ 32,495	\$ 157,748	\$ 21,664	\$ 41,808	\$ 317,473
3	\$ 63,758	\$ 32,495	\$ 60,141	\$ 20,464	\$ 41,808	\$ 218,666
4	\$ 63,758	\$ 32,495	\$ 40,439	\$ -	\$ 41,808	\$ 178,500
5	\$ 63,758	\$ 32,495	\$ 40,439	\$ 11,129	\$ 41,808	\$ 189,630
6	\$ 63,758	\$ 32,495	\$ 75,663	\$ 11,129	\$ 41,808	\$ 224,853
7	\$ 63,758	\$ 32,495	\$ 29,781	\$ -	\$ 41,808	\$ 167,843
8	\$ 63,758	\$ 32,495	\$ 75,663	\$ 20,201	\$ 41,808	\$ 233,924
9	\$ 63,758	\$ 32,495	\$ 75,663	\$ 20,201	\$ 41,808	\$ 233,924
10	\$ 63,758	\$ 32,495	\$ 79,808	\$ 32,251	\$ 41,808	\$ 250,120
11	\$ 63,758	\$ 32,495	\$ 40,439	\$ -	\$ 41,808	\$ 178,500
12	\$ 63,758	\$ 32,495	\$ 29,781	\$ -	\$ 41,808	\$ 167,843
13	\$ 63,758	\$ 32,495	\$ 157,748	\$ 21,664	\$ 41,808	\$ 317,473
14	\$ 63,758	\$ 32,495	\$ 40,439	\$ 17,354	\$ 41,808	\$ 195,854
15	\$ 63,758	\$ 32,495	\$ 29,781	\$ -	\$ 41,808	\$ 167,843
16	\$ 63,758	\$ 32,495	\$ 73,652	\$ 21,664	\$ 41,808	\$ 233,377
17	\$ 63,758	\$ 32,495	\$ 40,439	\$ 11,927	\$ 41,808	\$ 190,428
18	\$ 63,758	\$ 32,495	\$ 75,663	\$ 33,049	\$ 41,808	\$ 246,772

6 RECOMMENDATIONS

CORVUS recommends the following:

1. Implement the updated offsite levy rates outlined in Section 5.
2. Amend the offsite levy account balances in City documentation to align with Appendices B8, C8, D8, E8, and F8. In so doing, remove excess cash from reserves (if any) to pay down front-ending debts.
3. In advance of the next rate update, consider if the City wishes to include new offsite infrastructure in the bylaw in alignment with changes to the MGA (i.e., fire halls, police stations).

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

³ Offsite levies in Chestermere are charged via separate bylaws (i.e., one bylaw for each infrastructure type).

7 ACKNOWLEDGEMENTS

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

8 DISCLAIMER

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

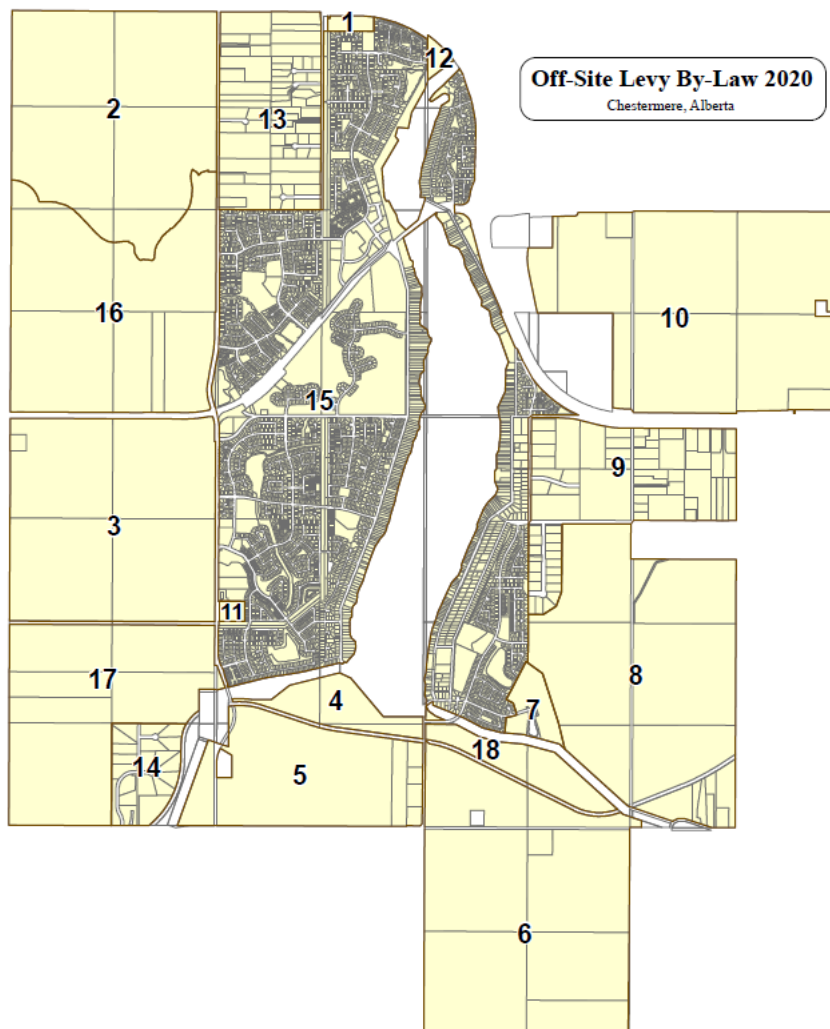
Offsite levy rates are not intended to stay static; they are based upon educated assumptions and the best available information of the day. Planning assumptions, cost estimates etc. can change each year. Accordingly, the Municipal Government Act requires that offsite levy rates be updated with the most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

APPENDIX A: OFFSITE LEVY AREAS AND STAGING

A1. Offsite Levy Areas

The City is parsed into **18** offsite levy areas, as shown in the map below. Areas take into consideration existing/planned infrastructure basins as well as natural and man-made barriers (e.g., rivers, highways, etc.). All offsite levy infrastructure costs are allocated to one or more areas.

Offsite Levy Areas



Total net development area, the amount of land available for development across all offsite levy areas, is approximately **2046 net ha**. In calculating net development area only those lands remaining to be developed (at Dec 31, 2016) that have not previously paid offsite levies have been considered (as required by legislation/regulation). Further, allowances have been made to net development area calculations for environmental reserves,

municipal reserves, and arterial road right of way.

Offsite Levy Net Development Area

Area Ref. #	Development Area Location	Land Use	Gross Area (ha.)	Environmental Reserves (ha.)	Sub-total	Municipal Reserves	Arterial Right of Way	Net Development Area (ha.)
1.1	Westmere	Residential - Low Density	3.79		3.79	-		3.79
1.2	Westmere	Residential - Medium/High Density			-	-		-
1.3	Westmere	Commercial	0.47		0.47	-		0.47
1.4	Westmere	Industrial			-	-		-
1.5	Westmere	Other			-	-		-
2.1	North Waterbridge	Residential - Low Density	140.40		140.40	14.04		126.36
2.2	North Waterbridge	Residential - Medium/High Density			-	-		-
2.3	North Waterbridge	Commercial			-	-		-
2.4	North Waterbridge	Industrial	118.60		118.60	-		118.60
2.5	North Waterbridge	Other			-	-		-
3.1	Chelsea & Dawson's Landing	Residential - Low Density	231.49	15.57	215.92	34.10	1.33	180.49
3.2	Chelsea & Dawson's Landing	Residential - Medium/High Density	10.28		10.28	1.03		9.25
3.3	Chelsea & Dawson's Landing	Commercial	14.23		14.23	-		14.23
3.4	Chelsea & Dawson's Landing	Industrial			-	-		-
3.5	Chelsea & Dawson's Landing	Other			-	-		-
4.1	South Shore	Residential - Low Density	31.75		31.75	3.18	0.02	28.56
4.2	South Shore	Residential - Medium/High Density			-	-		-
4.3	South Shore	Commercial			-	-		-
4.4	South Shore	Industrial			-	-		-
4.5	South Shore	Other			-	-		-
5.1	Edgewater	Residential - Low Density	134.29	6.50	127.79	12.78	1.71	113.30
5.2	Edgewater	Residential - Medium/High Density			-	-		-
5.3	Edgewater	Commercial	2.16		2.16	-		2.16
5.4	Edgewater	Industrial			-	-		-
5.5	Edgewater	Other			-	-		-
6.1	South Industrial	Residential - Low Density			-	-		-
6.2	South Industrial	Residential - Medium/High Density			-	-		-
6.3	South Industrial	Commercial			-	-		-
6.4	South Industrial	Industrial	315.53	14.00	301.53	30.15	4.20	267.18
6.5	South Industrial	Other			-	-		-
7.1	Kinniburgh	Residential - Low Density	11.35		11.35	1.18	-	10.17
7.2	Kinniburgh	Residential - Medium/High Density			-	-		-
7.3	Kinniburgh	Commercial			-	-		-
7.4	Kinniburgh	Industrial			-	-		-
7.5	Kinniburgh	Other			-	-		-
8.1	Sierra Vista	Residential - Low Density	292.74	39.00	253.74	25.37	-	228.37
8.2	Sierra Vista	Residential - Medium/High Density			-	-		-
8.3	Sierra Vista	Commercial			-	-		-
8.4	Sierra Vista	Industrial			-	-		-
8.5	Sierra Vista	Other			-	-		-
9.1	East Acreages	Residential - Low Density	67.60	21.80	45.80	-		45.80
9.2	East Acreages	Residential - Medium/High Density	51.70	12.50	39.20	-		39.20
9.3	East Acreages	Commercial	21.30	1.70	19.60	-		19.60
9.4	East Acreages	Industrial			-	-		-
9.5	East Acreages	Other	6.54		6.54	-		6.54

City of Chestermere Offsite Levy Rates Update

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.)
10.1	Mountain View Park	Residential - Low Density	107.14		107.14	10.71	1.30	95.13
10.2	Mountain View Park	Residential - Medium/High Density	54.30		54.30	5.43		48.87
10.3	Mountain View Park	Commercial	33.33		33.33	3.33	1.00	29.00
10.4	Mountain View Park	Industrial	124.29		124.29	12.43	5.50	106.36
10.5	Mountain View Park	Other	4.86		4.86	0.49		4.37
11.1	Goodacre	Residential - Low Density			-	-		-
11.2	Goodacre	Residential - Medium/High Density	3.26		3.26			3.26
11.3	Goodacre	Commercial			-	-		-
11.4	Goodacre	Industrial			-	-		-
11.5	Goodacre	Other			-	-		-
12.1	North East Westmere	Residential - Low Density	3.80		3.80	0.38	0.20	3.22
12.2	North East Westmere	Residential - Medium/High Density			-	-		-
12.3	North East Westmere	Commercial			-	-		-
12.4	North East Westmere	Industrial			-	-		-
12.5	North East Westmere	Other			-	-		-
13.1	North Acreages	Residential - Low Density	122.66	4.00	118.66	11.87	1.20	105.59
13.2	North Acreages	Residential - Medium/High Density			-	-		-
13.3	North Acreages	Commercial			-	-		-
13.4	North Acreages	Industrial	1.25		1.25	-		1.25
13.5	North Acreages	Other			-	-		-
14.1	Paradise Meadows	Residential - Low Density	36.53		36.53	3.65	-	32.88
14.2	Paradise Meadows	Residential - Medium/High Density			-	-	-	-
14.3	Paradise Meadows	Commercial			-	-	-	-
14.4	Paradise Meadows	Industrial			-	-	-	-
14.5	Paradise Meadows	Other	-		-	-	-	-
15.1	Existing Development	Residential - Low Density	1.46		1.46	-	-	1.46
15.2	Existing Development	Residential - Medium/High Density			-	-	-	-
15.3	Existing Development	Commercial			-	-	-	-
15.4	Existing Development	Industrial			-	-	-	-
15.5	Existing Development	Other			-	-	-	-
16.1	BridgePort	Residential - Low Density	226.40	7.70	218.70	24.12	1.36	193.22
16.2	BridgePort	Residential - Medium/High Density			-	-	-	-
16.3	BridgePort	Commercial	19.69		19.69	-	-	19.69
16.4	BridgePort	Industrial	-		-	-	-	-
16.5	BridgePort	Other			-	-	-	-
17.1	Waterford	Residential - Low Density	178.33	2.60	175.73	18.69	5.03	152.01
17.2	Waterford	Residential - Medium/High Density			-	-	-	-
17.3	Waterford	Commercial	8.19		8.19	-	-	8.19
17.4	Waterford	Industrial			-	-	-	-
17.5	Waterford	Other			-	-	-	-
18.1	South East Chestermere	Residential - Low Density	29.02	3.32	25.70	2.57	-	23.13
18.2	South East Chestermere	Residential - Medium/High Density			-	-	-	-
18.3	South East Chestermere	Commercial	3.87		3.87	-	-	3.87
18.4	South East Chestermere	Industrial			-	-	-	-
18.5	South East Chestermere	Other			-	-	-	-
		Total	2,412.59	128.69	2,283.91	215.50	22.85	2,045.56

Summary of Offsite Levy Net Development Area

Description	ha.
Gross Development Area	2,412.59
Less Environment Reserve	128.69
Less Municipal Reserve	215.50
Less ROW Allowance	22.85
Net Development Area	2,045.56

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

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

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

A2. Development Staging

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

Of the **2046 net ha.** of development area available across all offsite levy development areas, planners estimate that approximately **835 net ha. (41%)** will develop during the next 25-years (the rate planning period) as shown in the tables below.

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

Developed Since Model Created	37.12	1.8%
Developed In Next 25 Years	835.03	40.8%
Developed Beyond 25 Years	1,173.41	57.4%
Net Development Area	2,045.56	

Anticipated Development During the 25-year Rate Planning Period

Area Ref. #	Area Developed in Next 25 years (Net ha.)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	
1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.1	55.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.00	5.00	10.00	5.00	10.00	5.00	10.00	5.00	-
2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.1	150.325	11.77	15.06	12.98	13.63	-	10.56	5.52	12.53	10.31	9.89	5.08	12.33	5.91	11.53	13.23	-	-	-	-	-	-	-	-	-	-	-
3.2	9.250	-	-	-	-	5.05	-	1.30	2.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3	9.920	-	4.92	4.75	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.1	16.300	-	10.98	-	-	5.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.1	85.300	-	-	-	6.00	1.00	-	8.30	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	-	5.00	-	5.00	-	5.00	-	5.00	-
5.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.3	2.160	-	-	-	-	-	2.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.4	76.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.60	10.00	10.00	10.00	12.50	12.50	12.50	-
6.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.1	10.170	-	-	-	3.26	-	4.00	-	2.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

City of Chestermere Offsite Levy Rates Update

Area Ref. #	Area Developed in Next 25 years (Net ha.)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044
10.1	93.100	-	-	6.00	-	7.50	-	-	5.00	-	-	6.00	3.30	10.00	-	12.30	3.80	7.00	5.00	5.00	6.10	6.00	5.10	5.00	-	-
10.2	48.870	-	-	-	-	4.67	5.90	3.80	4.80	4.80	5.00	4.90	4.90	5.20	4.90	-	-	-	-	-	-	-	-	-	-	-
10.3	15.000	-	-	3.00	3.00	3.00	3.00	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.4	10.000	-	-	2.50	2.50	2.50	2.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.2	3.260	-	-	3.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.1	100.680	-	-	-	-	7.00	-	-	6.50	-	-	7.50	-	7.50	8.00	-	8.50	3.60	8.00	9.60	-	7.60	-	9.60	5.10	12.18
16.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.3	19.690	-	-	-	-	-	-	5.00	5.00	5.00	4.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.1	94.710	8.85	-	7.66	-	-	7.30	-	7.30	-	7.30	-	-	7.30	-	-	7.00	8.00	6.00	-	9.00	-	9.00	-	10.00	-
17.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.3	8.190	1.19	-	1.40	1.40	1.20	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.1	23.130	-	-	-	-	-	-	8.13	-	6.00	-	-	4.00	5.00	-	-	-	-	-	-	-	-	-	-	-	-
18.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.3	3.870	-	-	-	-	-	-	3.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	835.03	21.81	30.96	41.55	29.79	37.24	38.67	38.92	51.94	31.11	31.88	28.48	29.53	45.91	29.43	30.53	24.30	23.60	24.00	33.20	35.10	33.60	34.10	37.10	37.60	34.68

APPENDIX B: WATER OFFSITE INFRASTRUCTURE

B1. Water Offsite Infrastructure Costs

To support future growth, water offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$58.52 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Water Offsite Infrastructure

Item	Project Description	Cost of Completed Work & Historical Interest	Future Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,126,144	\$ -	\$ -	\$ 2,126,144
2	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 15,150,152	\$ 1,878,919	\$ -	\$ 17,029,070
3	NW Water Reservoir & Pump Station	\$ -	\$ -	\$ 12,000,000	\$ 12,000,000
4	New Water Supply Main from Calgary	\$ -	\$ -	\$ 9,700,000	\$ 9,700,000
5	Main Pump Station Upgrade	\$ 8,146	\$ -	\$ 1,822,000	\$ 1,830,146
6	Distribution Trunk in Chestermere Blvd (North)	\$ -	\$ -	\$ 5,000,000	\$ 5,000,000
7	Distribution trunk in Rainbow Road (West)	\$ -	\$ -	\$ 3,240,000	\$ 3,240,000
8	Distribution trunk in Twp Rd. 240 (South)	\$ 1,945	\$ -	\$ 1,470,000	\$ 1,471,945
9	Distribution trunk in Range Rd. 281 (East)	\$ -	\$ -	\$ 3,600,000	\$ 3,600,000
10	Main Pump Station Upgrade Phase 2	\$ -	\$ -	\$ 2,160,000	\$ 2,160,000
11	Main Pump Station Upgrade Phase 3	\$ -	\$ -	\$ 360,000	\$ 360,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 17,286,386	\$ 1,878,919	\$ 39,352,000	\$ 58,517,305

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

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

****Financing interest cost to date is also included in the cost of work completed for Project #2.

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

B2. Water Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive approximately **\$1.85 million** in special grants and contributions for water offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$56.67 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	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,126,144	\$ -	\$ -	\$ 2,126,144
2	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 17,029,070	\$ 1,850,941	\$ -	\$ 15,178,129
3	NW Water Reservoir & Pump Station	\$ 12,000,000	\$ -	\$ -	\$ 12,000,000
4	New Water Supply Main from Calgary	\$ 9,700,000	\$ -	\$ -	\$ 9,700,000
5	Main Pump Station Upgrade	\$ 1,830,146	\$ -	\$ -	\$ 1,830,146
6	Distribution Trunk in Chestermere Blvd (North)	\$ 5,000,000	\$ -	\$ -	\$ 5,000,000
7	Distribution trunk in Rainbow Road (West)	\$ 3,240,000	\$ -	\$ -	\$ 3,240,000
8	Distribution trunk in Twp Rd. 240 (South)	\$ 1,471,945	\$ -	\$ -	\$ 1,471,945
9	Distribution trunk in Range Rd. 281 (East)	\$ 3,600,000	\$ -	\$ -	\$ 3,600,000
10	Main Pump Station Upgrade Phase 2	\$ 2,160,000	\$ -	\$ -	\$ 2,160,000
11	Main Pump Station Upgrade Phase 3	\$ 360,000	\$ -	\$ -	\$ 360,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 58,517,305	\$ 1,850,941	\$ -	\$ 56,666,364

B3. Water Infrastructure Staging

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

Water Infrastructure Staging

Item	Project Description	Construction Start Year
1	East Calgary Regional Water Line - Tie-In and Oversizing	
2	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	
3	NW Water Reservoir & Pump Station	2031
4	New Water Supply Main from Calgary	2044
5	Main Pump Station Upgrade	2022
6	Distribution Trunk in Chestermere Blvd (North)	2023
7	Distribution trunk in Rainbow Road (West)	2021
8	Distribution trunk in Twp Rd. 240 (South)	2018
9	Distribution trunk in Range Rd. 281 (East)	2045
10	Main Pump Station Upgrade Phase 2	2033
11	Main Pump Station Upgrade Phase 3	2038

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

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

B4. Water Offsite Infrastructure Benefiting Parties

The water offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. During this review four potential benefiting parties were identified including:

- City of Chestermere – that portion of cost which is required to service existing residents.
- Other Stakeholders - other parties (such as neighboring municipalities) that benefit from the infrastructure.
- City of Chestermere Future Development (Financial Oversizing) - that portion of cost

which benefits future development beyond the 25-year review period.

- City of Chestermere Future Development (in Rates) – all growth-related infrastructure (i.e., leviable water infrastructure costs) during the 25-year rate planning period.

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

Allocation of Water Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,126,144			0.0%	100.0%
2	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 15,178,129			0.0%	100.0%
3	NW Water Reservoir & Pump Station	\$ 12,000,000			44.0%	56.0%
4	New Water Supply Main from Calgary	\$ 9,700,000			96.0%	4.0%
5	Main Pump Station Upgrade	\$ 1,830,146			8.0%	92.0%
6	Distribution Trunk in Chestermere Blvd (North)	\$ 5,000,000			12.0%	88.0%
7	Distribution trunk in Rainbow Road (West)	\$ 3,240,000			4.0%	96.0%
8	Distribution trunk in Twp Rd. 240 (South)	\$ 1,471,945			0.0%	100.0%
9	Distribution trunk in Range Rd. 281 (East)	\$ 3,600,000			100.0%	0.0%
10	Main Pump Station Upgrade Phase 2	\$ 2,160,000			52.0%	48.0%
11	Main Pump Station Upgrade Phase 3	\$ 360,000			72.0%	28.0%
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -				100.0%
		\$ 56,666,364				

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

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

B5. Existing Receipts & Adjusted Levy Cost

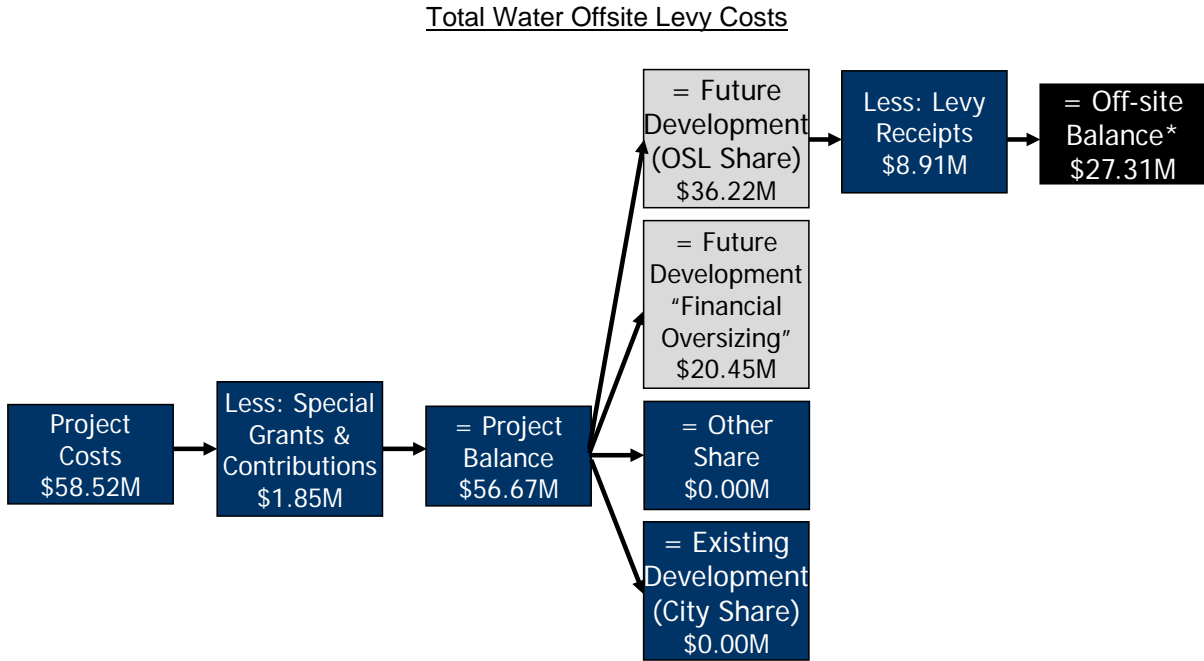
Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$36.22 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$8.91 million** (\$7.97M + \$0.94M) in offsite levies to date and results in an adjusted offsite levy cost of approximately **\$27.31 million**.

Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,126,144	\$ -	\$ 66,978	\$ 2,059,166
2	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 15,178,129	\$ 6,440,676	\$ 275,247	\$ 8,462,207
3	NW Water Reservoir & Pump Station	\$ 6,720,000	\$ -	\$ 90,726	\$ 6,629,274
4	New Water Supply Main from Calgary	\$ 388,000	\$ -	\$ 146,673	\$ 241,327
5	Main Pump Station Upgrade	\$ 1,683,735	\$ -	\$ 153,912	\$ 1,529,823
6	Distribution Trunk in Chestermere Blvd (North)	\$ 4,400,000	\$ -	\$ 44,149	\$ 4,355,851
7	Distribution trunk in Rainbow Road (West)	\$ 3,110,400	\$ -	\$ 83,780	\$ 3,026,620
8	Distribution trunk in Twp Rd. 240 (South)	\$ 1,471,945	\$ -	\$ 43,615	\$ 1,428,330
9	Distribution trunk in Range Rd. 281 (East)	\$ -	\$ -	\$ 30,418	\$ (30,418)
10	Main Pump Station Upgrade Phase 2	\$ 1,036,800	\$ -	\$ -	\$ 1,036,800
11	Main Pump Station Upgrade Phase 3	\$ 100,800	\$ -	\$ -	\$ 100,800
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ 1,531,052	\$ -	\$ (1,531,052)
		\$ 36,215,952	\$ 7,971,727	\$ 935,497	\$ 27,308,728

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 **\$27.31 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).



B7. Water Infrastructure Benefitting Areas

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

Benefiting Areas for Water Offsite Infrastructure

Item	Project Description	Developer Cost	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5
1	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,059,166	1	1	1	1	1	1	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	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 8,462,207	1	1	1	1	1	1	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	NW Water Reservoir & Pump Station	\$ 6,629,274	1	1	1	1	1	1	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	New Water Supply Main from Calgary	\$ 241,327	1	1	1	1	1	1	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	Main Pump Station Upgrade	\$ 1,529,823	1	1	1	1	1	1	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	Distribution Trunk in Chestermere Blvd (North)	\$ 4,355,851	1	1	1	1	1	1	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	Distribution trunk in Rainbow Road (West)	\$ 3,026,620	1	1	1	1	1	1	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	Distribution trunk in Twp Rd. 240 (South)	\$ 1,428,330	1	1	1	1	1	1	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	Distribution trunk in Range Rd. 281 (East)	\$ (30,418)	1	1	1	1	1	1	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	Main Pump Station Upgrade Phase 2	\$ 1,036,800	1	1	1	1	1	1	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	Main Pump Station Upgrade Phase 3	\$ 100,800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ (1,531,052)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
		\$ 27,308,728																														

City of Chestermere Offsite Levy Rates Update

Item	Project Description	Developer Cost	7.1	7.2	7.3	7.4	7.5	8.1	8.2	8.3	8.4	8.5	9.1	9.2	9.3	9.4	9.5	10.1	10.2	10.3	10.4	10.5	11.1	11.2	11.3	11.4	11.5	12.1	12.2	12.3	12.4	12.5
1	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,059,166	1	1	1	1	1	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	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 8,462,207	1	1	1	1	1	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	NW Water Reservoir & Pump Station	\$ 6,629,274	1	1	1	1	1	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	New Water Supply Main from Calgary	\$ 241,327	1	1	1	1	1	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	Main Pump Station Upgrade	\$ 1,529,823	1	1	1	1	1	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	Distribution Trunk in Chestermere Blvd (North)	\$ 4,355,851	1	1	1	1	1	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	Distribution trunk in Rainbow Road (West)	\$ 3,026,620	1	1	1	1	1	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	Distribution trunk in Twp Rd. 240 (South)	\$ 1,428,330	1	1	1	1	1	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	Distribution trunk in Range Rd. 281 (East)	\$ (30,418)	1	1	1	1	1	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	Main Pump Station Upgrade Phase 2	\$ 1,036,800	1	1	1	1	1	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	Main Pump Station Upgrade Phase 3	\$ 100,800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ (1,531,052)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		\$ 27,308,728																														

Item	Project Description	Developer Cost	13.1	13.2	13.3	13.4	13.5	14.1	14.2	14.3	14.4	14.5	15.1	15.2	15.3	15.4	15.5	16.1	16.2	16.3	16.4	16.5	17.1	17.2	17.3	17.4	17.5	18.1	18.2	18.3	18.4	18.5
1	East Calgary Regional Water Line - Tie-In and Oversizing	\$ 2,059,166	1	1	1	1	1	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	Water Reservoir Expansion & ECRW Line Tie-In to Reservoir	\$ 8,462,207	1	1	1	1	1	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	NW Water Reservoir & Pump Station	\$ 6,629,274	1	1	1	1	1	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	New Water Supply Main from Calgary	\$ 241,327	1	1	1	1	1	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	Main Pump Station Upgrade	\$ 1,529,823	1	1	1	1	1	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	Distribution Trunk in Chestermere Blvd (North)	\$ 4,355,851	1	1	1	1	1	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	Distribution trunk in Rainbow Road (West)	\$ 3,026,620	1	1	1	1	1	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	Distribution trunk in Twp Rd. 240 (South)	\$ 1,428,330	1	1	1	1	1	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	Distribution trunk in Range Rd. 281 (East)	\$ (30,418)	1	1	1	1	1	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	Main Pump Station Upgrade Phase 2	\$ 1,036,800	1	1	1	1	1	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	Main Pump Station Upgrade Phase 3	\$ 100,800	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ (1,531,052)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		\$ 27,308,728																														

B8. Reserve Balance

The balance of the City's water reserve at December 31st, 2019 is **\$(7,166,721)**. This updated balance takes into consideration expenditures up to end-2019 and assumes that front-ending debts will be drawn down via a withdrawal of all available cash in the account.

Water Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2016		\$ 14,803,503.78	\$(14,803,503.78)
Offsite Levy Receipt Allocations to December 31, 2016	\$ 6,440,675.57		\$(8,362,828.21)
Debenture Interest Expenditure to December 31, 2016		\$ -	\$(8,362,828.21)
Unallocated Receipts to December 31, 2016	\$ 1,531,051.62		\$(6,831,776.59)
Opening Balance			\$(6,831,776.59)
2017			
Interest on Opening Balance		\$ 204,953.30	\$(7,036,729.89)
Project Expenditures (OSL Share) As Reflected by City		\$ 210,820.89	\$(7,247,550.78)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ 5,741.00	\$(7,253,291.78)
Offsite Levy Receipts	\$ 203,415.22		\$(7,049,876.56)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$(7,049,876.56)
Debenture Interest Expenditure		\$ -	\$(7,049,876.56)
Interest on Project Expenditure		\$ 1,624.21	\$(7,051,500.77)
Interest on Offsite Levy Receipts	\$ 1,017.08		\$(7,050,483.70)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$(7,050,483.70)
Interest on Debenture Expenditure		\$ -	\$(7,050,483.70)
2018			
Interest on Opening Balance		\$ 218,564.99	\$(7,269,048.69)
Project Expenditures (OSL Share) As Reflected by City		\$ 219,168.97	\$(7,488,217.66)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ (5,741.01)	\$(7,482,476.65)
Offsite Levy Receipts	\$ 432,178.89		\$(7,050,297.76)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$(7,050,297.76)
Debenture Interest Expenditure		\$ -	\$(7,050,297.76)
Interest on Project Expenditure		\$ 1,654.07	\$(7,051,951.83)
Interest on Offsite Levy Receipts	\$ 4,321.79		\$(7,047,630.04)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$(7,047,630.04)
Interest on Debenture Expenditure		\$ -	\$(7,047,630.04)

2019			\$ (7,047,630.04)
Interest on Opening Balance		\$ 218,476.53	\$ (7,266,106.57)
Project Expenditures (OSL Share) As Reflected by City		\$ 201,952.99	\$ (7,468,059.56)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ (0.99)	\$ (7,468,058.57)
Offsite Levy Receipts	\$ 299,903.32		\$ (7,168,155.25)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (7,168,155.25)
Debenture Interest Expenditure		\$ -	\$ (7,168,155.25)
Interest on Project Expenditure		\$ 1,565.13	\$ (7,169,720.38)
Interest on Offsite Levy Receipts	\$ 2,999.03		\$ (7,166,721.34)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (7,166,721.34)
Interest on Debenture Expenditure		\$ -	\$ (7,166,721.34)

B9. Development and Water Infrastructure Staging Impacts

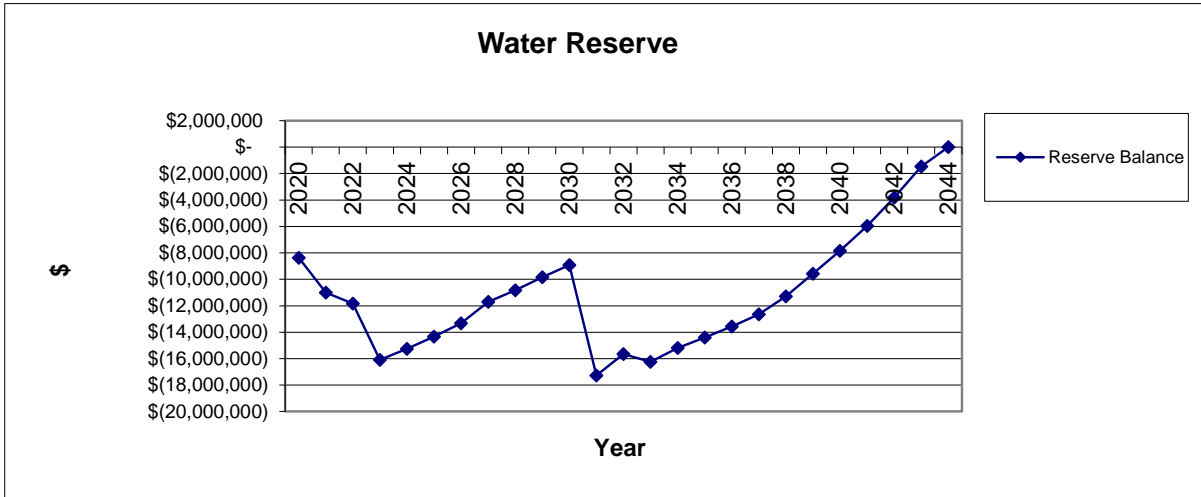
Water offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of water infrastructure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

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.60%**⁴ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **1.00%** 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).

⁴ The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.60%.

Anticipated Water Offsite Levy Reserve Balances⁵



Anticipated Water Offsite Levy Reserve Balances

Year	Receipts	Expenditure	Opening Balance	Interest	Balance
					\$ (7,166,721)
2020	\$ 708,718	\$ 1,699,616	\$ (212,098)	\$	\$ (8,369,717)
2021	\$ 1,026,170	\$ 3,373,870	\$ (278,653)	\$	\$ (10,996,070)
2022	\$ 1,404,719	\$ 1,941,253	\$ (299,848)	\$	\$ (11,832,453)
2023	\$ 1,037,352	\$ 4,877,743	\$ (407,494)	\$	\$ (16,080,338)
2024	\$ 1,335,680	\$ 134,024	\$ (386,846)	\$	\$ (15,265,527)
2025	\$ 1,428,579	\$ 138,045	\$ (363,350)	\$	\$ (14,338,343)
2026	\$ 1,480,949	\$ 124,413	\$ (337,527)	\$	\$ (13,319,333)
2027	\$ 2,035,666	\$ 128,145	\$ (296,707)	\$	\$ (11,708,520)
2028	\$ 1,255,862	\$ 94,278	\$ (274,220)	\$	\$ (10,821,157)
2029	\$ 1,325,554	\$ 97,107	\$ (249,410)	\$	\$ (9,842,120)
2030	\$ 1,219,709	\$ 80,016	\$ (226,263)	\$	\$ (8,928,690)
2031	\$ 1,302,618	\$ 9,204,722	\$ (437,601)	\$	\$ (17,268,396)
2032	\$ 2,085,922	\$ 63,667	\$ (396,400)	\$	\$ (15,642,541)
2033	\$ 1,377,267	\$ 1,558,731	\$ (411,424)	\$	\$ (16,235,429)
2034	\$ 1,471,366	\$ 45,029	\$ (385,036)	\$	\$ (15,194,128)
2035	\$ 1,206,448	\$ 46,380	\$ (364,886)	\$	\$ (14,398,946)
2036	\$ 1,206,845	\$ 23,886	\$ (343,616)	\$	\$ (13,559,602)
2037	\$ 1,264,119	\$ 24,602	\$ (320,322)	\$	\$ (12,640,408)
2038	\$ 1,801,159	\$ 168,289	\$ (286,196)	\$	\$ (11,293,734)
2039	\$ 1,961,365	\$ -	\$ (242,642)	\$	\$ (9,575,010)
2040	\$ 1,933,872	\$ -	\$ (198,670)	\$	\$ (7,839,808)
2041	\$ 2,021,530	\$ -	\$ (151,275)	\$	\$ (5,969,553)
2042	\$ 2,265,358	\$ -	\$ (96,309)	\$	\$ (3,800,504)
2043	\$ 2,364,765	\$ -	\$ (37,329)	\$	\$ (1,473,069)
2044	\$ 2,246,552	\$ 773,483	\$ 0	\$	\$ 0

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

APPENDIX C: SANITARY OFFSITE INFRASTRUCTURE

C1. Sanitary Offsite Infrastructure Costs

To support future growth, sanitary offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$100.09 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Sanitary Offsite Infrastructure

Item	Project Description	Cost of Completed Work & Historical Interest	Future Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Lift Station #13	\$ 13,021,388	\$ 3,401,532	\$ -	\$ 16,422,920
2	Lift Station #13 Forcemain	\$ 9,640,329	\$ 1,126,258	\$ -	\$ 10,766,587
3	Great Plains Sanitary Trunk	\$ 6,991,076	\$ 479,352	\$ -	\$ 7,470,428
4	Rainbow Road Gravity Sewer Trunk Phase 1	\$ 6,927,416	\$ 1,779,734	\$ -	\$ 8,707,150
5	Rainbow Road Gravity Sewer Trunk Phase 2	\$ 134,056	\$ -	\$ 10,733,250	\$ 10,867,306
6	Lift Station #14 Phase 1	\$ 9,088	\$ -	\$ 3,600,000	\$ 3,609,088
7	Lift Station #14 Forcemain	\$ 1,434	\$ -	\$ 1,740,000	\$ 1,741,434
8	Lift Station #13 - Pump Upgrade 1	\$ -	\$ -	\$ 854,000	\$ 854,000
9	Rainbow Road Gravity Sewer Trunk Phase 3	\$ -	\$ -	\$ 5,650,000	\$ 5,650,000
10	Rainbow Road Gravity Sewer Trunk Phase 4	\$ -	\$ -	\$ 4,500,000	\$ 4,500,000
11	Lift Station #10 to LS #13 & H2S System Upgrade	\$ -	\$ -	\$ 1,246,500	\$ 1,246,500
12	Lift Station #14 Phase 2	\$ -	\$ -	\$ 12,000,000	\$ 12,000,000
13	Lift Station #14 New Forcemain to Calgary	\$ -	\$ -	\$ 12,000,000	\$ 12,000,000
14	Rainbow Road Gravity Sewer Trunk Phase 5	\$ -	\$ -	\$ 3,000,000	\$ 3,000,000
15	LS#10 connection to RRST 3	\$ -	\$ -	\$ 1,250,000	\$ 1,250,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 36,724,787	\$ 6,786,876	\$ 56,573,750	\$ 100,085,412

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

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

****Financing interest costs to date are included in the cost of work completed for Projects #1, #2, #3, and #4.

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

C2. Sanitary Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$3.36 million** in special grants and contributions (\$2.26 million + \$1.10 million) for sanitary offsite levy infrastructure as shown in the table below (note, if the City receives additional grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$96.72 million**.

Special Grants and Contributions for Sanitary Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Grants	Developer Agreement Contributions	Other Contributions	Reduced Project Estimated Cost
1	Lift Station #13	\$ 16,422,920	\$ -	\$ -	\$ -	\$ 16,422,920
2	Lift Station #13 Forcemain	\$ 10,766,587	\$ 2,261,781	\$ -	\$ -	\$ 8,504,806
3	Great Plains Sanitary Trunk	\$ 7,470,428	\$ -	\$ -	\$ 1,100,000	\$ 6,370,428
4	Rainbow Road Gravity Sewer Trunk Phase 1	\$ 8,707,150	\$ -	\$ -	\$ -	\$ 8,707,150
5	Rainbow Road Gravity Sewer Trunk Phase 2	\$ 10,867,306	\$ -	\$ -	\$ -	\$ 10,867,306
6	Lift Station #14 Phase 1	\$ 3,609,088	\$ -	\$ -	\$ -	\$ 3,609,088
7	Lift Station #14 Forcemain	\$ 1,741,434	\$ -	\$ -	\$ -	\$ 1,741,434
8	Lift Station #13 - Pump Upgrade 1	\$ 854,000	\$ -	\$ -	\$ -	\$ 854,000
9	Rainbow Road Gravity Sewer Trunk Phase 3	\$ 5,650,000	\$ -	\$ -	\$ -	\$ 5,650,000
10	Rainbow Road Gravity Sewer Trunk Phase 4	\$ 4,500,000	\$ -	\$ -	\$ -	\$ 4,500,000
11	Lift Station #10 to LS #13 & H2S System Upgrade	\$ 1,246,500	\$ -	\$ -	\$ -	\$ 1,246,500
12	Lift Station #14 Phase 2	\$ 12,000,000	\$ -	\$ -	\$ -	\$ 12,000,000
13	Lift Station #14 New Forcemain to Calgary	\$ 12,000,000	\$ -	\$ -	\$ -	\$ 12,000,000
14	Rainbow Road Gravity Sewer Trunk Phase 5	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,000,000
15	LS#10 connection to RRST 3	\$ 1,250,000	\$ -	\$ -	\$ -	\$ 1,250,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 100,085,412	\$ 2,261,781	\$ -	\$ 1,100,000	\$ 96,723,631

*The contribution of \$1.1 million for Project #3 was provided by the City of Calgary.

C3. Sanitary Infrastructure Staging

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

Sanitary Infrastructure Staging

Item	Project Description	Construction Start Year
1	Lift Station #13	
2	Lift Station #13 Forcemain	
3	Great Plains Sanitary Trunk	
4	Rainbow Road Gravity Sewer Trunk Phase 1	
5	Rainbow Road Gravity Sewer Trunk Phase 2	2019
6	Lift Station #14 Phase 1	2029
7	Lift Station #14 Forcemain	2017
8	Lift Station #13 - Pump Upgrade 1	2031
9	Rainbow Road Gravity Sewer Trunk Phase 3	2023
10	Rainbow Road Gravity Sewer Trunk Phase 4	2023
11	Lift Station #10 to LS #13 & H2S System Upgrade	2020
12	Lift Station #14 Phase 2	2048
13	Lift Station #14 New Forcemain to Calgary	2048
14	Rainbow Road Gravity Sewer Trunk Phase 5	2050
15	LS#10 connection to RRST 3	2023

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

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

C4. Sanitary Offsite Infrastructure Benefiting Parties

The sanitary offsite infrastructure previously outlined will benefit various parties to varying

degrees as determined by City staff and engineering advisors. During this review four potential benefiting parties were identified including:

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

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

Allocation of Sanitary Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Lift Station #13	\$ 16,422,920	20.0%		0.0%	80.0%
2	Lift Station #13 Forcemain	\$ 8,504,806	20.0%		0.0%	80.0%
3	Great Plains Sanitary Trunk	\$ 6,370,428			0.0%	100.0%
4	Rainbow Road Gravity Sewer Trunk Phase 1	\$ 8,707,150	20.0%		0.0%	80.0%
5	Rainbow Road Gravity Sewer Trunk Phase 2	\$ 10,867,306	20.0%		0.0%	80.0%
6	Lift Station #14 Phase 1	\$ 3,609,088			36.0%	64.0%
7	Lift Station #14 Forcemain	\$ 1,741,434			0.0%	100.0%
8	Lift Station #13 - Pump Upgrade 1	\$ 854,000			44.0%	56.0%
9	Rainbow Road Gravity Sewer Trunk Phase 3	\$ 5,650,000	20.0%		9.6%	70.4%
10	Rainbow Road Gravity Sewer Trunk Phase 4	\$ 4,500,000			12.0%	88.0%
11	Lift Station #10 to LS #13 & H2S System Upgrade	\$ 1,246,500			0.0%	100.0%
12	Lift Station #14 Phase 2	\$ 12,000,000			100.0%	0.0%
13	Lift Station #14 New Forcemain to Calgary	\$ 12,000,000			100.0%	0.0%
14	Rainbow Road Gravity Sewer Trunk Phase 5	\$ 3,000,000			100.0%	0.0%
15	LS#10 connection to RRST 3	\$ 1,250,000	20.0%		9.6%	70.4%
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -				100.0%
		\$ 96,723,631				

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

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

C5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$56.57 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 **\$7.20 million** (\$6.69M + \$0.51M) in offsite levies to date. and results in an adjusted offsite levy cost of approximately **\$49.36 million**.

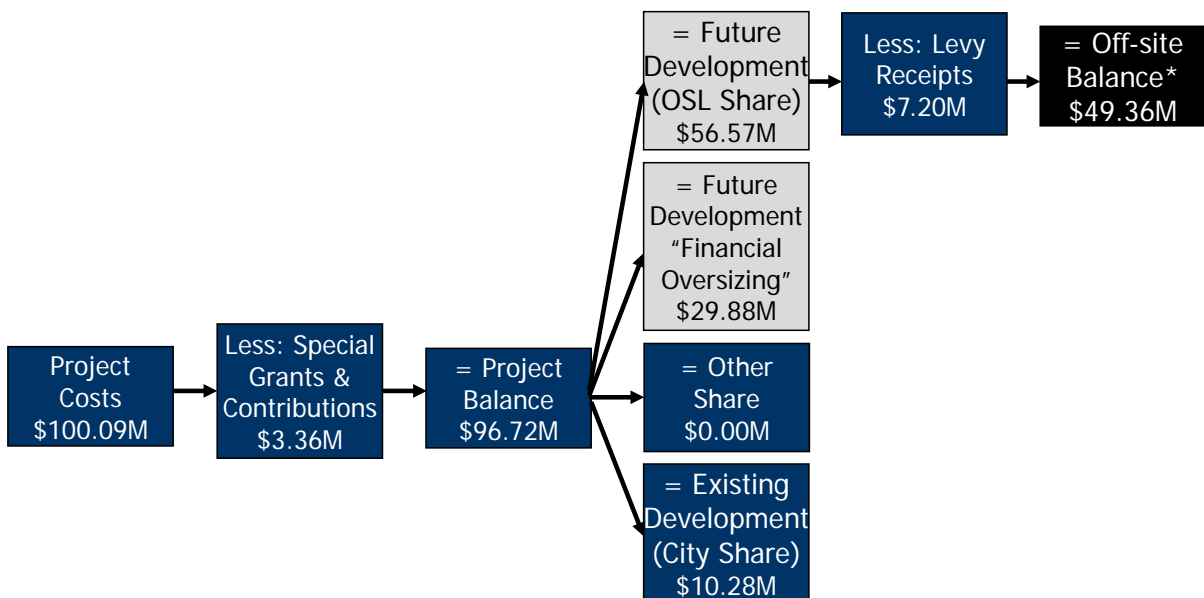
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Lift Station #13	\$ 13,138,336	\$ 2,724,818	\$ 198,240	\$ 10,215,278
2	Lift Station #13 Forcemain	\$ 6,803,845	\$ 240,241	\$ 135,502	\$ 6,428,102
3	Great Plains Sanitary Trunk	\$ 6,370,428	\$ 3,379,289	\$ 56,795	\$ 2,934,344
4	Rainbow Road Gravity Sewer Trunk Phase 1	\$ 6,965,720	\$ 347,258	\$ 32,530	\$ 6,585,932
5	Rainbow Road Gravity Sewer Trunk Phase 2	\$ 8,693,845	\$ -	\$ 59,970	\$ 8,633,875
6	Lift Station #14 Phase 1	\$ 2,309,816	\$ -	\$ -	\$ 2,309,816
7	Lift Station #14 Forcemain	\$ 1,741,434	\$ -	\$ 1,289	\$ 1,740,145
8	Lift Station #13 - Pump Upgrade 1	\$ 478,240	\$ -	\$ 10,961	\$ 467,279
9	Rainbow Road Gravity Sewer Trunk Phase 3	\$ 3,977,600	\$ -	\$ 17,623	\$ 3,959,977
10	Rainbow Road Gravity Sewer Trunk Phase 4	\$ 3,960,000	\$ -	\$ -	\$ 3,960,000
11	Lift Station #10 to LS #13 & H2S System Upgrade	\$ 1,246,500	\$ -	\$ -	\$ 1,246,500
12	Lift Station #14 Phase 2	\$ -	\$ -	\$ -	\$ -
13	Lift Station #14 New Forcemain to Calgary	\$ -	\$ -	\$ -	\$ -
14	Rainbow Road Gravity Sewer Trunk Phase 5	\$ -	\$ -	\$ -	\$ -
15	LS#10 connection to RRST 3	\$ 880,000	\$ -	\$ -	\$ 880,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 56,565,763	\$ 6,691,606	\$ 512,909	\$ 49,361,249

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 **\$49.36 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section C4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Sanitary Offsite Levy Costs



C7. Sanitary Infrastructure Benefitting Areas

Net developer costs for each project have been allocated to multiple benefitting offsite levy

City of Chestermere Offsite Levy Rates Update

2018				
Interest on Opening Balance		\$ 754,167.80		\$ (24,327,993.57)
Project Expenditures (OSL Share) As Reflected by City		\$ 4,746,247.66		\$ (29,828,409.03)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ 1.80		\$ (29,828,410.83)
Offsite Levy Receipts	\$ 252,507.40			\$ (29,575,903.43)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -			\$ (29,575,903.43)
Debenture Interest Expenditure		\$ -		\$ (29,575,903.43)
Interest on Project Expenditure		\$ 36,783.43		\$ (29,612,686.87)
Interest on Offsite Levy Receipts	\$ 2,525.07			\$ (29,610,161.79)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -			\$ (29,610,161.79)
Interest on Debenture Expenditure		\$ -		\$ (29,610,161.79)
2019				\$ (29,610,161.79)
Interest on Opening Balance		\$ 917,915.02		\$ (30,528,076.81)
Project Expenditures (OSL Share) As Reflected by City		\$ 703,441.26		\$ (31,231,518.07)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ (1.12)		\$ (31,231,516.94)
Offsite Levy Receipts	\$ 207,904.86			\$ (31,023,612.08)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -			\$ (31,023,612.08)
Debenture Interest Expenditure		\$ -		\$ (31,023,612.08)
Interest on Project Expenditure		\$ 5,451.66		\$ (31,029,063.75)
Interest on Offsite Levy Receipts	\$ 2,079.05			\$ (31,026,984.70)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -			\$ (31,026,984.70)
Interest on Debenture Expenditure		\$ -		\$ (31,026,984.70)

C9. Development and Sanitary Infrastructure Staging Impacts

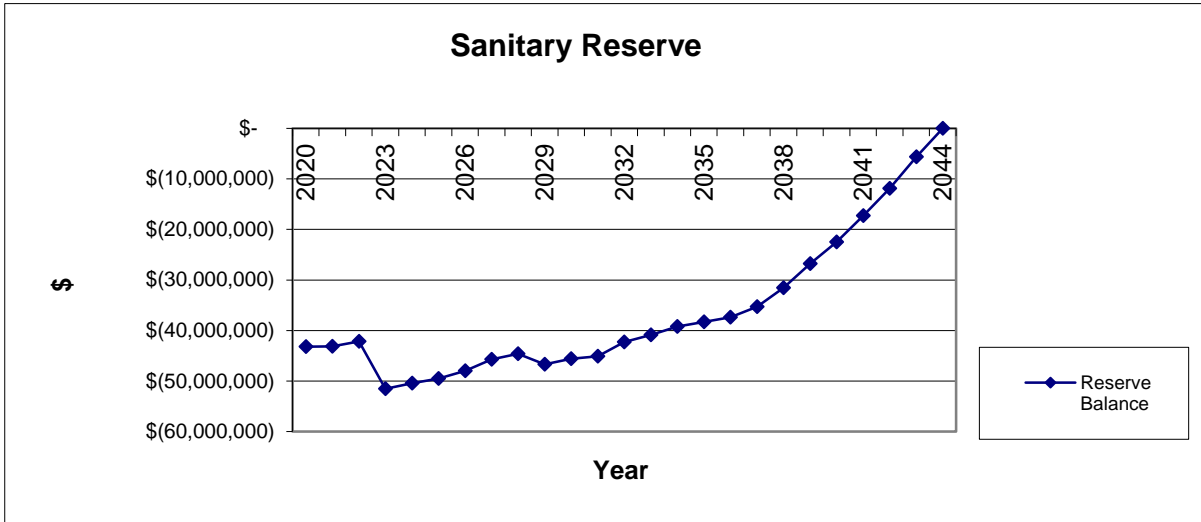
Sanitary offsite infrastructure will be constructed in staged fashion over the 25-year development period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of sanitary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

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.60%**⁶ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **1.00%** 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 at the time of writing was ~2.60%.

Anticipated Sanitary Offsite Levy Reserve Balances⁷



Anticipated Sanitary Offsite Levy Reserve Balances

Year	Receipts	Expenditure	Opening Balance	
			Interest	Balance
				\$ (31,026,985)
2020	\$ 1,113,875	\$ 12,205,328	\$ (1,095,079)	\$ (43,213,518)
2021	\$ 1,678,562	\$ 523,020	\$ (1,093,507)	\$ (43,151,483)
2022	\$ 2,582,596	\$ 519,155	\$ (1,068,289)	\$ (42,156,332)
2023	\$ 1,773,528	\$ 9,835,519	\$ (1,305,676)	\$ (51,523,999)
2024	\$ 2,796,474	\$ 390,557	\$ (1,277,070)	\$ (50,395,152)
2025	\$ 2,481,724	\$ 314,196	\$ (1,253,918)	\$ (49,481,542)
2026	\$ 3,003,230	\$ 307,498	\$ (1,216,431)	\$ (48,002,241)
2027	\$ 3,788,588	\$ 308,321	\$ (1,157,571)	\$ (45,679,546)
2028	\$ 2,518,832	\$ 309,119	\$ (1,130,216)	\$ (44,600,048)
2029	\$ 2,350,130	\$ 3,256,324	\$ (1,183,162)	\$ (46,689,404)
2030	\$ 2,543,654	\$ 291,649	\$ (1,155,372)	\$ (45,592,770)
2031	\$ 2,580,331	\$ 949,602	\$ (1,143,013)	\$ (45,105,055)
2032	\$ 4,189,910	\$ 290,158	\$ (1,071,338)	\$ (42,276,640)
2033	\$ 2,701,594	\$ 279,032	\$ (1,036,206)	\$ (40,890,285)
2034	\$ 2,935,875	\$ 287,403	\$ (994,287)	\$ (39,236,099)
2035	\$ 2,161,290	\$ 274,987	\$ (971,095)	\$ (38,320,891)
2036	\$ 2,123,727	\$ 261,567	\$ (947,927)	\$ (37,406,658)
2037	\$ 3,273,640	\$ 269,415	\$ (894,463)	\$ (35,296,896)
2038	\$ 4,587,444	\$ 46,518	\$ (799,655)	\$ (31,555,626)
2039	\$ 5,476,805	\$ 47,914	\$ (679,295)	\$ (26,806,029)
2040	\$ 4,934,889	\$ 37,013	\$ (569,612)	\$ (22,477,765)
2041	\$ 5,664,745	\$ 25,416	\$ (437,799)	\$ (17,276,235)
2042	\$ 5,717,695	\$ 26,178	\$ (301,203)	\$ (11,885,921)
2043	\$ 6,393,337	\$ 13,482	\$ (143,158)	\$ (5,649,224)
2044	\$ 5,649,224	\$ -	\$ -	\$ 0

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

APPENDIX D: TRANSPORTATION OFFSITE INFRASTRUCTURE

D1. Transportation Offsite Infrastructure Costs

To support future growth, transportation offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$154.67 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Transportation Offsite Infrastructure

Item	Project Description	Cost of Completed Work & Historical Interest	Future Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Cost
1	Rainbow Rd Twinning - Chestermere Blvd to Merganser Drive West	\$ 1,045,273	\$ -	\$ -	\$ 1,045,273
2	Rainbow Rd 2 lane rural to 2 lane urban at Goodacre location	\$ 581,327	\$ -	\$ -	\$ 581,327
3	Rainbow Rd Tie in and Signalization at Chestermere Blvd	\$ 570,000	\$ -	\$ -	\$ 570,000
5	TWP Rd 240 2 lane rural to 2 lane urban (Phase 1,2,3) Rainbow Rd to East City boundary (includes 1 cannal crossing)	\$ 10,405,685	\$ 402,495	\$ -	\$ 10,808,181
6	Rainbow Rd 2 lane rural to 2 lane urban Western Headworks cannal crossing to TWP Rd 240 (includes rail crossing upgrade)	\$ -	\$ -	\$ 4,320,000	\$ 4,320,000
7	Rainbow Rd 2 lane rural bridge to 2 lane urban bridge (Western Headworks crossing)	\$ -	\$ -	\$ 2,640,000	\$ 2,640,000
9	Chestermere Blvd 2 lane rural to 4 lane rural Range Rd 284 to Rainbow Rd (potential for 2 lane urban included in scope)	\$ -	\$ -	\$ 15,180,000	\$ 15,180,000
10	Rainbow Rd 2 lane urban to 4 lane urban Merganser Drive West to Western Headworks cannal bridge	\$ -	\$ -	\$ 3,240,000	\$ 3,240,000
11	Rainbow Rd 2 lane urban to 4 lane urban Western Headworks cannal to TWP Rd 240	\$ -	\$ -	\$ 4,800,000	\$ 4,800,000
12	Chestermere Blvd 2 lane urban to 4 lane urban bridge over Chestermere Lake	\$ -	\$ -	\$ 6,480,000	\$ 6,480,000
13	Rainbow Rd 2 lane rural to 2 lane urban Windermere Drive to Highway 1	\$ -	\$ -	\$ 5,040,000	\$ 5,040,000
14	Highway 1 & Rainbow Rd interchange (50% of half diamond)	\$ -	\$ -	\$ 18,000,000	\$ 18,000,000
15	Range Rd 281 2 lane rural to 2 lane urban TWP Rd 240 to south boundary	\$ -	\$ -	\$ 4,320,000	\$ 4,320,000
16	TWP Rd 240 2 lane urban to 4 lane urban Range Rd 282 to Range Rd 281	\$ -	\$ -	\$ 7,080,000	\$ 7,080,000
18	Highway 1 & Highway 791 1 interchange (1/4 share)	\$ -	\$ -	\$ 9,000,000	\$ 9,000,000
19	Chestermere Blvd Median BRT Range Rd 284 to Rainbow Rd (includes BRT stations)	\$ -	\$ -	\$ 4,800,000	\$ 4,800,000
20	Project removed and cost estimate added to Item 19 & 30	\$ -	\$ -	\$ -	\$ -
22	TWP Rd 240 2 lane rural to 2 lane urban (Phase 4) Rainbow Rd to West City boundary (includes 1 cannal crossing and 1 rail crossing)	\$ -	\$ -	\$ 5,400,000	\$ 5,400,000
23	Rainbow Rd 2 lane urban to 4 lane urban Highway 1 to Windermere Drive	\$ -	\$ -	\$ 3,490,000	\$ 3,490,000
24	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to AltaLink ROW	\$ -	\$ -	\$ 3,000,000	\$ 3,000,000
25	Range Rd 284 2 lane rural to 2 lane urban TWP Rd 240 to AltaLink ROW	\$ -	\$ -	\$ 3,600,000	\$ 3,600,000
26	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to Memorial Drive/Windermere Drive	\$ -	\$ -	\$ 3,600,000	\$ 3,600,000
27	Range Rd 284 2 lane rural to 2 lane urban to Highway 1 to Memorial Drive/Windermere Drive	\$ -	\$ -	\$ 5,040,000	\$ 5,040,000
28	Highway 1 & Range Rd 284 interchange (1/4 share)	\$ -	\$ -	\$ 9,000,000	\$ 9,000,000
29	Chestermere Blvd 2 lane rural to 4 lane rural Rainbow Rd to Highway 1 (potential for 2 lane urban included in scope)	\$ -	\$ -	\$ 6,600,000	\$ 6,600,000
30	Chestermere Blvd Median BRT to Rainbow Rd to Highway 1 (includes BRT stations)	\$ -	\$ -	\$ 9,600,000	\$ 9,600,000
31	Rainbow Rd 2 lane urban bridge to 4 lane urban bridge (Western Headworks crossing)	\$ -	\$ -	\$ 2,640,000	\$ 2,640,000
32	Rainbow Rd 2 lane urban to 4 lane urban Chestermere Blvd to Windermere Drive	\$ -	\$ -	\$ 4,800,000	\$ 4,800,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ 12,602,285	\$ 402,495	\$ 141,670,000	\$ 154,674,780

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

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

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

D2. Transportation Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$9.47 million** in

special grants and contributions (\$4.00 million + \$5.47 million) 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 **\$145.21 million**.

Special Grants and Contributions for Transportation Offsite Infrastructure

Item	Project Description	Total Project Cost	Special Provincial Grants	Developer Agreement Contributions	Other Contributions	Reduced Project Cost
1	Rainbow Rd Twinning - Chestermere Blvd to Merganser Drive West	\$ 1,045,273	\$ -	\$ -	\$ -	\$ 1,045,273
2	Rainbow Rd 2 lane rural to 2 lane urban at Goodacre location	\$ 581,327	\$ -	\$ -	\$ -	\$ 581,327
3	Rainbow Rd Tie in and Signalization at Chestermere Blvd	\$ 570,000	\$ -	\$ -	\$ -	\$ 570,000
5	TWP Rd 240 2 lane rural to 2 lane urban (Phase 1,2,3) Rainbow Rd to East City boundary (includes 1 cannal crossing)	\$ 10,808,181	\$ 4,000,000	\$ 5,467,146	\$ -	\$ 1,341,035
6	Rainbow Rd 2 lane rural to 2 lane urban Western Headworks cannal crossing to TWP Rd 240 (includes rail crossing upgrade)	\$ 4,320,000	\$ -	\$ -	\$ -	\$ 4,320,000
7	Rainbow Rd 2 lane rural bridge to 2 lane urban bridge (Western Headworks crossing)	\$ 2,640,000	\$ -	\$ -	\$ -	\$ 2,640,000
9	Chestermere Blvd 2 lane rural to 4 lane rural Range Rd 284 to Rainbow Rd (potential for 2 lane urban included in scope)	\$ 15,180,000	\$ -	\$ -	\$ -	\$ 15,180,000
10	Rainbow Rd 2 lane urban to 4 lane urban Merganser Drive West to Western Headworks cannal bridge	\$ 3,240,000	\$ -	\$ -	\$ -	\$ 3,240,000
11	Rainbow Rd 2 lane urban to 4 lane urban Western Headworks cannal to TWP Rd 240	\$ 4,800,000	\$ -	\$ -	\$ -	\$ 4,800,000
12	Chestermere Blvd 2 lane urban to 4 lane urban bridge over Chestermere Lake	\$ 6,480,000	\$ -	\$ -	\$ -	\$ 6,480,000
13	Rainbow Rd 2 lane rural to 2 lane urban Windermere Drive to Highway 1	\$ 5,040,000	\$ -	\$ -	\$ -	\$ 5,040,000
14	Highway 1 & Rainbow Rd interchange (50% of half diamond)	\$ 18,000,000	\$ -	\$ -	\$ -	\$ 18,000,000
15	Range Rd 281 2 lane rural to 2 lane urban TWP Rd 240 to south boundary	\$ 4,320,000	\$ -	\$ -	\$ -	\$ 4,320,000
16	TWP Rd 240 2 lane urban to 4 lane urban Range Rd 282 to Range Rd 281	\$ 7,080,000	\$ -	\$ -	\$ -	\$ 7,080,000
18	Highway 1 & Highway 791 interchange (1/4 share)	\$ 9,000,000	\$ -	\$ -	\$ -	\$ 9,000,000
19	Chestermere Blvd Median BRT Range Rd 284 to Rainbow Rd (includes BRT stations)	\$ 4,800,000	\$ -	\$ -	\$ -	\$ 4,800,000
20	Project removed and cost estimate added to Item 19 & 30	\$ -	\$ -	\$ -	\$ -	\$ -
22	TWP Rd 240 2 lane rural to 2 lane urban (Phase 4) Rainbow Rd to West City boundary (includes 1 cannal crossing and 1 rail crossing)	\$ 5,400,000	\$ -	\$ -	\$ -	\$ 5,400,000
23	Rainbow Rd 2 lane urban to 4 lane urban Highway 1 to Windermere Drive	\$ 3,490,000	\$ -	\$ -	\$ -	\$ 3,490,000
24	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to AltaLink ROW	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,000,000
25	Range Rd 284 2 lane rural to 2 lane urban TWP Rd 240 to AltaLink ROW	\$ 3,600,000	\$ -	\$ -	\$ -	\$ 3,600,000
26	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to Memorial Drive/Windermere Drive	\$ 3,600,000	\$ -	\$ -	\$ -	\$ 3,600,000
27	Range Rd 284 2 lane rural to 2 lane urban to Highway 1 to Memorial Drive/Windermere Drive	\$ 5,040,000	\$ -	\$ -	\$ -	\$ 5,040,000
28	Highway 1 & Range Rd 284 interchange (1/4 share)	\$ 9,000,000	\$ -	\$ -	\$ -	\$ 9,000,000
29	Chestermere Blvd 2 lane rural to 4 lane rural Rainbow Rd to Highway 1 (potential for 2 lane urban included in scope)	\$ 6,600,000	\$ -	\$ -	\$ -	\$ 6,600,000
30	Chestermere Blvd Median BRT to Rainbow Rd to Highway 1 (includes BRT stations)	\$ 9,600,000	\$ -	\$ -	\$ -	\$ 9,600,000
31	Rainbow Rd 2 lane urban bridge to 4 lane urban bridge (Western Headworks crossing)	\$ 2,640,000	\$ -	\$ -	\$ -	\$ 2,640,000
32	Rainbow Rd 2 lane urban to 4 lane urban Chestermere Blvd to Windermere Drive	\$ 4,800,000	\$ -	\$ -	\$ -	\$ 4,800,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 154,674,780	\$ 4,000,000	\$ 5,467,146	\$ -	\$ 145,207,634

D3. Transportation Infrastructure Staging

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

Transportation Infrastructure Staging

Item	Project Description	Construction Start Year
1	Rainbow Rd Twinning - Chestermere Blvd to Merganser Drive West	
2	Rainbow Rd 2 lane rural to 2 lane urban at Goodacre location	
3	Rainbow Rd Tie in and Signalization at Chestermere Blvd	
5	TWP Rd 240 2 lane rural to 2 lane urban (Phase 1,2,3) Rainbow Rd to East City boundary (includes 1 cannal crossing)	
6	Rainbow Rd 2 lane rural to 2 lane urban Western Headworks cannal crossing to TWP Rd 240 (includes rail crossing upgrade)	2030
7	Rainbow Rd 2 lane rural bridge to 2 lane urban bridge (Western Headworks crossing)	2022
9	Chestermere Blvd 2 lane rural to 4 lane rural Range Rd 284 to Rainbow Rd (potential for 2 lane urban included in scope)	2022
10	Rainbow Rd 2 lane urban to 4 lane urban Merganser Drive West to Western Headworks cannal bridge	2024
11	Rainbow Rd 2 lane urban to 4 lane urban Western Headworks cannal to TWP Rd 240	2040
12	Chestermere Blvd 2 lane urban to 4 lane urban bridge over Chestermere Lake	2028
13	Rainbow Rd 2 lane rural to 2 lane urban Windermere Drive to Highway 1	2033
14	Highway 1 & Rainbow Rd interchange (50% of half diamond)	2043
15	Range Rd 281 2 lane rural to 2 lane urban TWP Rd 240 to south boundary	2040
16	TWP Rd 240 2 lane urban to 4 lane urban Range Rd 282 to Range Rd 281	2044
18	Highway 1 & Highway 791 1 interchange (1/4 share)	2050
19	Chestermere Blvd Median BRT Range Rd 284 to Rainbow Rd (includes BRT stations)	2038
20	Project removed and cost estimate added to Item 19 & 30	
22	TWP Rd 240 2 lane rural to 2 lane urban (Phase 4) Rainbow Rd to West City boundary (includes 1 cannal crossing and 1 rail crossing)	2026
23	Rainbow Rd 2 lane urban to 4 lane urban Highway 1 to Windermere Drive	2052
24	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to AltaLink ROW	2025
25	Range Rd 284 2 lane rural to 2 lane urban TWP Rd 240 to AltaLink ROW	2030
26	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to Memorial Drive/Windermere Drive	2033
27	Range Rd 284 2 lane rural to 2 lane urban to Highway 1 to Memorial Drive/Windermere Drive	2040
28	Highway 1 & Range Rd 284 interchange (1/4 share)	2039
29	Chestermere Blvd 2 lane rural to 4 lane rural Rainbow Rd to Highway 1 (potential for 2 lane urban included in scope)	2028
30	Chestermere Blvd Median BRT to Rainbow Rd to Highway 1 (includes BRT stations)	2039
31	Rainbow Rd 2 lane urban bridge to 4 lane urban bridge (Western Headworks crossing)	2039
32	Rainbow Rd 2 lane urban to 4 lane urban Chestermere Blvd to Windermere Drive	2023

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

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

D4. Transportation Offsite Infrastructure Benefiting Parties

The transportation offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by the City's staff and engineering advisors. During this

review four potential benefiting parties were identified including:

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

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

Allocation of Transportation Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Rainbow Rd Twinning - Chestermere Blvd to Merganser Drive West	\$ 1,045,273			0.0%	100.0%
2	Rainbow Rd 2 lane rural to 2 lane urban at Goodacre location	\$ 581,327			0.0%	100.0%
3	Rainbow Rd Tie in and Signalization at Chestermere Blvd	\$ 570,000			0.0%	100.0%
5	TWP Rd 240 2 lane rural to 2 lane urban (Phase 1,2,3) Rainbow Rd to East City boundary (includes 1 cannal crossing)	\$ 1,341,035			0.0%	100.0%
6	Rainbow Rd 2 lane rural to 2 lane urban Western Headworks cannal crossing to TWP Rd 240 (includes rail crossing upgrade)	\$ 4,320,000			40.0%	60.0%
7	Rainbow Rd 2 lane rural bridge to 2 lane urban bridge (Western Headworks crossing)	\$ 2,640,000	50.0%		4.0%	46.0%
9	Chestermere Blvd 2 lane rural to 4 lane rural Range Rd 284 to Rainbow Rd (potential for 2 lane urban included in scope)	\$ 15,180,000			8.0%	92.0%
10	Rainbow Rd 2 lane urban to 4 lane urban Merganser Drive West to Western Headworks cannal bridge	\$ 3,240,000			16.0%	84.0%
11	Rainbow Rd 2 lane urban to 4 lane urban Western Headworks cannal to TWP Rd 240	\$ 4,800,000			80.0%	20.0%
12	Chestermere Blvd 2 lane urban to 4 lane urban bridge over Chestermere Lake	\$ 6,480,000	50.0%		16.0%	34.0%
13	Rainbow Rd 2 lane rural to 2 lane urban Windermere Drive to Highway 1	\$ 5,040,000			52.0%	48.0%
14	Highway 1 & Rainbow Rd interchange (50% of half diamond)	\$ 18,000,000			92.0%	8.0%
15	Range Rd 281 2 lane rural to 2 lane urban TWP Rd 240 to south boundary	\$ 4,320,000			80.0%	20.0%
16	TWP Rd 240 2 lane urban to 4 lane urban Range Rd 282 to Range Rd 281	\$ 7,080,000			96.0%	4.0%
18	Highway 1 & Highway 791 1 interchange (1/4 share)	\$ 9,000,000			100.0%	0.0%
19	Chestermere Blvd Median BRT Range Rd 284 to Rainbow Rd (includes BRT stations)	\$ 4,800,000			72.0%	28.0%
20	Project removed and cost estimate added to Item 19 & 30	\$ -			0.0%	100.0%
22	TWP Rd 240 2 lane rural to 2 lane urban (Phase 4) Rainbow Rd to West City boundary (includes 1 cannal crossing and 1 rail crossing)	\$ 5,400,000			24.0%	76.0%
23	Rainbow Rd 2 lane urban to 4 lane urban Highway 1 to Windermere Drive	\$ 3,490,000			100.0%	0.0%
24	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to AltaLink ROW	\$ 3,000,000			20.0%	80.0%
25	Range Rd 284 2 lane rural to 2 lane urban TWP Rd 240 to AltaLink ROW	\$ 3,600,000			40.0%	60.0%
26	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to Memorial Drive/Windermere Drive	\$ 3,600,000			52.0%	48.0%
27	Range Rd 284 2 lane rural to 2 lane urban to Highway 1 to Memorial Drive/Windermere Drive	\$ 5,040,000			80.0%	20.0%
28	Highway 1 & Range Rd 284 interchange (1/4 share)	\$ 9,000,000			76.0%	24.0%
29	Chestermere Blvd 2 lane rural to 4 lane rural Rainbow Rd to Highway 1 (potential for 2 lane urban included in scope)	\$ 6,600,000			32.0%	68.0%
30	Chestermere Blvd Median BRT to Rainbow Rd to Highway 1 (includes BRT stations)	\$ 9,600,000			76.0%	24.0%
31	Rainbow Rd 2 lane urban bridge to 4 lane urban bridge (Western Headworks crossing)	\$ 2,640,000			76.0%	24.0%
32	Rainbow Rd 2 lane urban to 4 lane urban Chestermere Blvd to Windermere Drive	\$ 4,800,000			12.0%	88.0%
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -				100.0%
		\$ 145,207,634				

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

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

D5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$58.75 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 **\$5.53 million** (\$4.93M + \$0.60M) in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$53.23 million**.

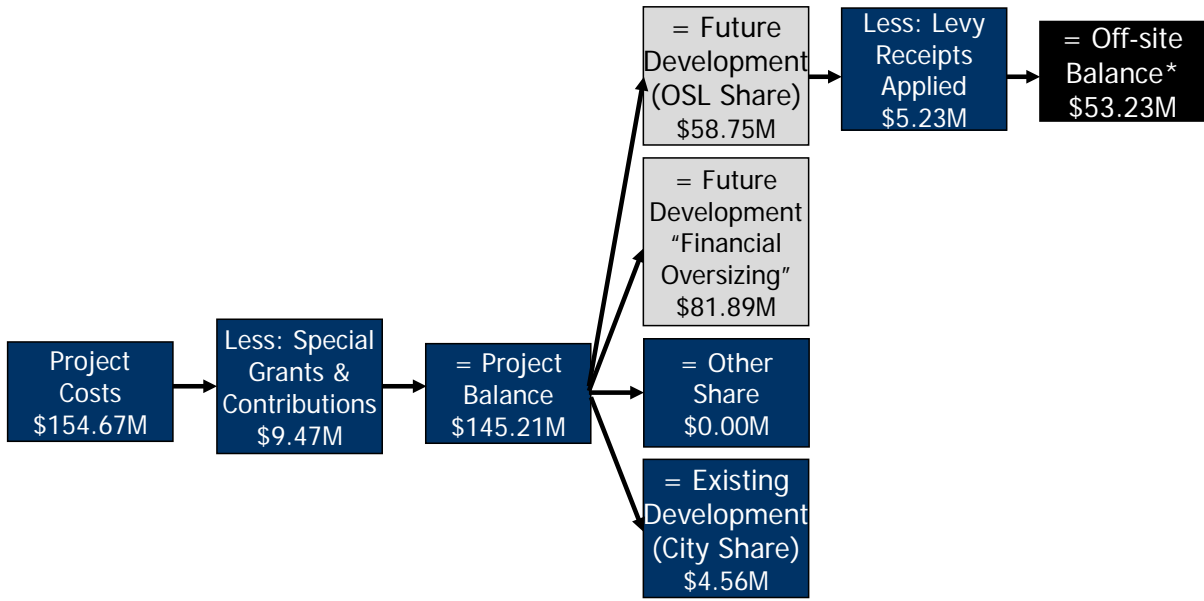
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Rainbow Rd Twinning - Chestermere Blvd to Merganser Drive West	\$ 1,045,273	\$ 1,044,741	\$ 4	\$ 527
2	Rainbow Rd 2 lane rural to 2 lane urban at Goodacre location	\$ 581,327	\$ 581,327	\$ -	\$ -
3	Rainbow Rd Tie in and Signalization at Chestermere Blvd	\$ 570,000	\$ 444,000	\$ 903	\$ 125,097
5	TWP Rd 240 2 lane rural to 2 lane urban (Phase 1,2,3) Rainbow Rd to East City boundary (includes 1 cannal crossing)	\$ 1,341,035	\$ 150,730	\$ 116,766	\$ 1,073,539
6	Rainbow Rd 2 lane rural to 2 lane urban Western Headworks cannal crossing to TWP Rd 240 (includes rail crossing upgrade)	\$ 2,592,000	\$ -	\$ 26,727	\$ 2,565,273
7	Rainbow Rd 2 lane rural bridge to 2 lane urban bridge (Western Headworks crossing)	\$ 1,214,400	\$ -	\$ 25,147	\$ 1,189,253
9	Chestermere Blvd 2 lane rural to 4 lane rural Range Rd 284 to Rainbow Rd (potential for 2 lane urban included in scope)	\$ 13,965,600	\$ -	\$ 80,875	\$ 13,884,725
10	Rainbow Rd 2 lane urban to 4 lane urban Merganser Drive West to Western Headworks cannal bridge	\$ 2,721,600	\$ -	\$ 68,031	\$ 2,653,569
11	Rainbow Rd 2 lane urban to 4 lane urban Western Headworks cannal to TWP Rd 240	\$ 960,000	\$ -	\$ 32,012	\$ 927,988
12	Chestermere Blvd 2 lane urban to 4 lane urban bridge over Chestermere Lake	\$ 2,203,200	\$ -	\$ 9,586	\$ 2,193,614
13	Rainbow Rd 2 lane rural to 2 lane urban Windermere Drive to Highway 1	\$ 2,419,200	\$ -	\$ 43,869	\$ 2,375,331
14	Highway 1 & Rainbow Rd interchange (50% of half diamond)	\$ 1,440,000	\$ -	\$ 69,200	\$ 1,370,800
15	Range Rd 281 2 lane rural to 2 lane urban TWP Rd 240 to south boundary	\$ 864,000	\$ -	\$ 21,057	\$ 842,943
16	TWP Rd 240 2 lane urban to 4 lane urban Range Rd 282 to Range Rd 281	\$ 283,200	\$ -	\$ 21,597	\$ 261,603
18	Highway 1 & Highway 791 1 interchange (1/4 share)	\$ -	\$ -	\$ 67,491	\$ (67,491)
19	Chestermere Blvd Median BRT Range Rd 284 to Rainbow Rd (includes BRT stations)	\$ 1,344,000	\$ -	\$ 5,345	\$ 1,338,655
20	Project removed and cost estimate added to Item 19 & 30	\$ -	\$ -	\$ 1,012	\$ (1,012)
22	TWP Rd 240 2 lane rural to 2 lane urban (Phase 4) Rainbow Rd to West City boundary (includes 1 cannal crossing and 1 rail crossing)	\$ 4,104,000	\$ -	\$ -	\$ 4,104,000
23	Rainbow Rd 2 lane urban to 4 lane urban Highway 1 to Windermere Drive	\$ -	\$ -	\$ -	\$ -
24	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to AltaLink ROW	\$ 2,400,000	\$ -	\$ -	\$ 2,400,000
25	Range Rd 284 2 lane rural to 2 lane urban TWP Rd 240 to AltaLink ROW	\$ 2,160,000	\$ -	\$ -	\$ 2,160,000
26	Range Rd 284 2 lane rural to 2 lane urban Chestermere Blvd to Memorial Drive/Windermere Drive	\$ 1,728,000	\$ -	\$ -	\$ 1,728,000
27	Range Rd 284 2 lane rural to 2 lane urban to Highway 1 to Memorial Drive/Windermere Drive	\$ 1,008,000	\$ -	\$ -	\$ 1,008,000
28	Highway 1 & Range Rd 284 interchange (1/4 share)	\$ 2,160,000	\$ -	\$ -	\$ 2,160,000
29	Chestermere Blvd 2 lane rural to 4 lane rural Rainbow Rd to Highway 1 (potential for 2 lane urban included in scope)	\$ 4,488,000	\$ -	\$ -	\$ 4,488,000
30	Chestermere Blvd Median BRT to Rainbow Rd to Highway 1 (includes BRT stations)	\$ 2,304,000	\$ -	\$ -	\$ 2,304,000
31	Rainbow Rd 2 lane urban bridge to 4 lane urban bridge (Western Headworks crossing)	\$ 633,600	\$ -	\$ -	\$ 633,600
32	Rainbow Rd 2 lane urban to 4 lane urban Chestermere Blvd to Windermere Drive	\$ 4,224,000	\$ -	\$ -	\$ 4,224,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ 2,704,322	\$ -	\$ (2,704,322)
		\$ 58,754,434	\$ 4,925,120	\$ 602,086	\$ 53,227,228

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 **\$53.23 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section D4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Transportation Offsite Levy Costs



D7. Transportation Infrastructure Benefiting Areas

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

Benefiting Areas for Transportation Offsite Infrastructure

Item	Project Description	Developer Cost	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5
1	Rainbow Rd Twinning - Chestermere Blvd to Merganser	\$ 527	1	1	1	1	1	1	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	Rainbow Rd 2 lane rural to 2 lane urban at Goodacre	\$ -	1	1	1	1	1	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	Rainbow Rd Tie in and Signalization at Chestermere Blvd	\$ 125,097	1	1	1	1	1	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	Project removed and cost estimate added to Item 10	\$ (409)	1	1	1	1	1	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	TWP Rd 240 2 lane rural to 2 lane urban (Phase 1,2,3)	\$ 1,073,539	1	1	1	1	1	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	Rainbow Rd 2 lane rural to 2 lane urban Western	\$ 2,565,273	1	1	1	1	1	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	Rainbow Rd 2 lane rural bridge to 2 lane urban bridge	\$ 1,189,253	1	1	1	1	1	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	Project removed and cost estimate added to Item 6	\$ (3,037)	1	1	1	1	1	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	Chestermere Blvd 2 lane rural to 4 lane rural Range Rd	\$ 13,884,725	1	1	1	1	1	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	Rainbow Rd 2 lane urban to 4 lane urban Merganser	\$ 2,653,569	1	1	1	1	1	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	Rainbow Rd 2 lane urban to 4 lane urban Western	\$ 927,988	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
12	Chestermere Blvd 2 lane urban to 4 lane urban bridge	\$ 2,193,614	1	1	1	1	1	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	Rainbow Rd 2 lane rural to 2 lane urban Windermere	\$ 2,375,331	1	1	1	1	1	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	Highway 1 & Rainbow Rd interchange (50% of half)	\$ 1,370,800	1	1	1	1	1	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	Range Rd 281 2 lane rural to 2 lane urban TWP Rd 240	\$ 842,943	1	1	1	1	1	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	TWP Rd 240 2 lane urban to 4 lane urban Range Rd 282	\$ 261,603	1	1	1	1	1	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	Project Removed	\$ (4,967)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
18	Highway 1 & Highway 791 1 interchange (1/4 share)	\$ (67,491)	1	1	1	1	1	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	Chestermere Blvd Median BRT Range Rd 284 to	\$ 1,338,655	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
20	Project removed and cost estimate added to Item 19 &	\$ (1,012)	1	1	1	1	1	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	Project Removed	\$ (4,049)	1	1	1	1	1	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	TWP Rd 240 2 lane rural to 2 lane urban (Phase 4)	\$ 4,104,000	1	1	1	1	1	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	Rainbow Rd 2 lane urban to 4 lane urban Highway 1 to	\$ -	1	1	1	1	1	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	Range Rd 284 2 lane rural to 2 lane urban Chestermere	\$ 2,400,000	1	1	1	1	1	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	Range Rd 284 2 lane rural to 2 lane urban TWP Rd 240	\$ 2,160,000	1	1	1	1	1	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	Range Rd 284 2 lane rural to 2 lane urban Chestermere	\$ 1,728,000	1	1	1	1	1	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	Range Rd 284 2 lane rural to 2 lane urban to Highway 1	\$ 1,008,000	1	1	1	1	1	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	Highway 1 & Range Rd 284 interchange (1/4 share)	\$ 2,160,000	1	1	1	1	1	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	Chestermere Blvd 2 lane rural to 4 lane rural Rainbow Rd	\$ 4,488,000	1	1	1	1	1	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	Chestermere Blvd Median BRT to Rainbow Rd to	\$ 2,304,000	1	1	1	1	1	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	Rainbow Rd 2 lane urban bridge to 4 lane urban bridge	\$ 633,600	1	1	1	1	1	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	Rainbow Rd 2 lane urban to 4 lane urban Chestermere	\$ 4,224,000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ (2,704,322)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		\$ 53,227,228																														

2017			\$ 2,878,714.34
Interest on Opening Balance	\$ 28,787.14		\$ 2,907,501.48
Project Expenditures (OSL Share) As Reflected by City		\$ 3,298,011.83	\$ (390,510.35)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ (209,876.34)	\$ (180,634.01)
Offsite Levy Receipts	\$ 84,552.03		\$ (96,081.98)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (96,081.98)
Debenture Interest Expenditure		\$ -	\$ (96,081.98)
Interest on Project Expenditure		\$ 23,161.02	\$ (119,242.99)
Interest on Offsite Levy Receipts	\$ 422.76		\$ (118,820.23)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (118,820.23)
Interest on Debenture Expenditure		\$ -	\$ (118,820.23)
2018			\$ (118,820.23)
Interest on Opening Balance		\$ 3,683.43	\$ (122,503.66)
Project Expenditures (OSL Share) As Reflected by City		\$ 708,001.90	\$ (830,505.56)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ (275,326.55)	\$ (555,179.01)
Offsite Levy Receipts	\$ 184,398.64		\$ (370,780.37)
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (370,780.37)
Debenture Interest Expenditure		\$ -	\$ (370,780.37)
Interest on Project Expenditure		\$ 3,353.23	\$ (374,133.60)
Interest on Offsite Levy Receipts	\$ 1,843.99		\$ (372,289.62)
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ (372,289.62)
Interest on Debenture Expenditure		\$ -	\$ (372,289.62)
2019			\$ (372,289.62)
Interest on Opening Balance		\$ 11,540.98	\$ (383,830.60)
Project Expenditures (OSL Share) As Reflected by City		\$ 1,678,261.16	\$ (2,062,091.76)
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ (3,084,951.22)	\$ 1,022,859.46
Offsite Levy Receipts	\$ 333,135.66		\$ 1,355,995.12
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 1,355,995.12
Debenture Interest Expenditure		\$ -	\$ 1,355,995.12
Interest on Project Expenditure		\$ (10,901.85)	\$ 1,366,896.97
Interest on Offsite Levy Receipts	\$ 3,331.36		\$ 1,370,228.33
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 1,370,228.33
Interest on Debenture Expenditure		\$ -	\$ 1,370,228.33

D9. Development and Transportation Infrastructure Staging Impacts

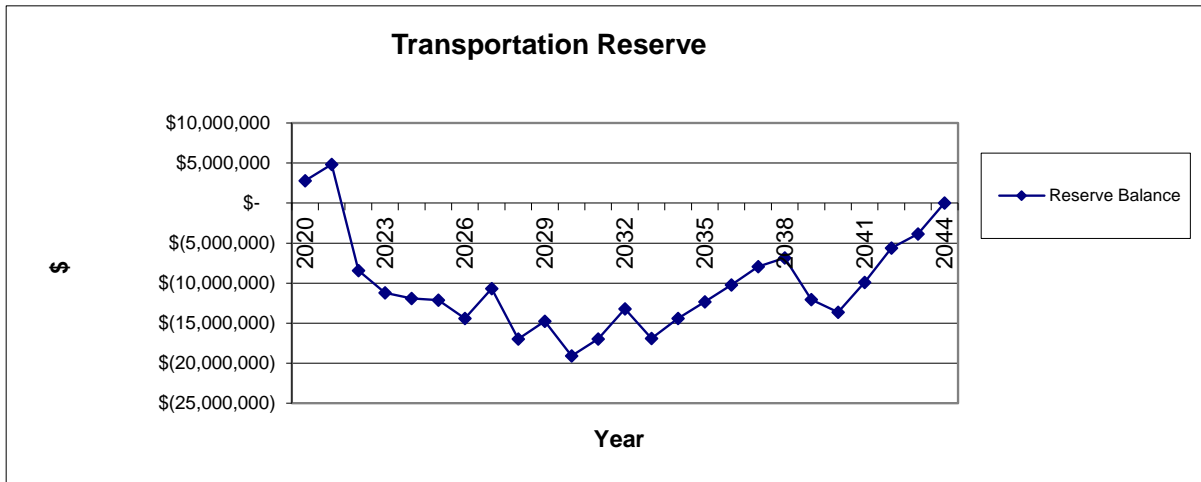
Transportation offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of transportation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

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.60%**⁸ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **1.00%** 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).

⁸ The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.60%.

Anticipated Transportation Offsite Levy Reserve Balances⁹



Anticipated Transportation Offsite Levy Reserve Balances

			Reserve Balance	\$ 1,370,228
Year	Receipts	Expenditure	Interest	Balance
2020	\$ 1,390,555	\$ 8,046	\$ 27,527	\$ 2,780,265
2021	\$ 2,013,417	\$ 6,839	\$ 47,868	\$ 4,834,711
2022	\$ 2,756,158	\$ 15,800,248	\$ (213,444)	\$ (8,422,823)
2023	\$ 2,035,358	\$ 4,532,237	\$ (283,912)	\$ (11,203,615)
2024	\$ 2,620,699	\$ 3,008,435	\$ (301,375)	\$ (11,892,726)
2025	\$ 2,802,973	\$ 2,733,069	\$ (307,393)	\$ (12,130,216)
2026	\$ 2,905,727	\$ 4,810,410	\$ (364,907)	\$ (14,399,807)
2027	\$ 3,994,120	\$ 3,235	\$ (270,632)	\$ (10,679,554)
2028	\$ 2,464,089	\$ 8,315,756	\$ (429,812)	\$ (16,961,034)
2029	\$ 2,600,830	\$ 3,432	\$ (373,455)	\$ (14,737,090)
2030	\$ 2,393,155	\$ 6,264,654	\$ (483,823)	\$ (19,092,413)
2031	\$ 2,555,827	\$ 1,820	\$ (429,999)	\$ (16,968,405)
2032	\$ 4,092,725	\$ -	\$ (334,768)	\$ (13,210,448)
2033	\$ 2,702,295	\$ 5,972,619	\$ (428,500)	\$ (16,909,272)
2034	\$ 2,886,924	\$ -	\$ (364,581)	\$ (14,386,929)
2035	\$ 2,367,136	\$ -	\$ (312,515)	\$ (12,332,308)
2036	\$ 2,367,915	\$ -	\$ (259,074)	\$ (10,223,467)
2037	\$ 2,480,291	\$ -	\$ (201,323)	\$ (7,944,498)
2038	\$ 3,534,001	\$ 2,243,857	\$ (173,013)	\$ (6,827,368)
2039	\$ 3,848,336	\$ 8,765,949	\$ (305,369)	\$ (12,050,350)
2040	\$ 3,794,393	\$ 5,016,071	\$ (345,073)	\$ (13,617,100)
2041	\$ 3,966,383	\$ -	\$ (250,919)	\$ (9,901,636)
2042	\$ 4,444,792	\$ -	\$ (141,878)	\$ (5,598,722)
2043	\$ 4,639,835	\$ 2,787,049	\$ (97,394)	\$ (3,843,330)
2044	\$ 4,407,893	\$ 564,563	\$ 0	\$ 0

⁹ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the same \$X rate paid in the future (i.e., it is discounted).

APPENDIX E: STORMWATER OFFSITE INFRASTRUCTURE

E1. Stormwater Offsite Infrastructure Costs

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 **\$35.11 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Stormwater Offsite Infrastructure

Item	Project Description	Cost of Completed Work & Historical Interest	Future Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
6	Phase 0 - Storm outfall prelim engineering	\$ -	\$ -	\$ 750,000	\$ 750,000
7	Phase 1 - Centralized stormwater reservoir	\$ -	\$ -	\$ 6,044,000	\$ 6,044,000
8	Phase 2 - Outlet forcemain & pump station	\$ -	\$ -	\$ 5,040,000	\$ 5,040,000
9	Phase 3 - Centralized stormwater reservoir expansion	\$ -	\$ -	\$ 5,261,600	\$ 5,261,600
10	NW Storm Trunk Phase A	\$ -	\$ -	\$ 560,400	\$ 560,400
11	NW Storm Trunk Phase B	\$ -	\$ -	\$ 1,960,800	\$ 1,960,800
12	NW Storm Trunk Phase C	\$ -	\$ -	\$ 1,586,400	\$ 1,586,400
13	NW Storm Trunk Phase D	\$ -	\$ -	\$ 756,000	\$ 756,000
14	NW Storm Trunk Phase E	\$ -	\$ -	\$ 1,104,000	\$ 1,104,000
16	SW Storm Trunk Phase A	\$ -	\$ -	\$ 1,095,600	\$ 1,095,600
17	SE Storm Trunk Phase A	\$ -	\$ -	\$ 4,893,600	\$ 4,893,600
18	NE Storm Trunk Phase A-E	\$ -	\$ -	\$ 6,060,000	\$ 6,060,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -
		\$ -	\$ -	\$ 35,112,400	\$ 35,112,400

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

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

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

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 has/will receive **\$0.00** in special grants and 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 **\$35.11 million**.

Special Grants and Contributions for Stormwater Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Other Contributions	Reduced Project Estimated Cost
6	Phase 0 - Storm outfall prelim engineering	\$ 750,000	\$ -	\$ -	\$ -	\$ 750,000
7	Phase 1 - Centralized stormwater reservoir	\$ 6,044,000	\$ -	\$ -	\$ -	\$ 6,044,000
8	Phase 2 - Outlet forcemain & pump station	\$ 5,040,000	\$ -	\$ -	\$ -	\$ 5,040,000
9	Phase 3 - Centralized stormwater reservoir expansion	\$ 5,261,600	\$ -	\$ -	\$ -	\$ 5,261,600
10	NW Storm Trunk Phase A	\$ 560,400	\$ -	\$ -	\$ -	\$ 560,400
11	NW Storm Trunk Phase B	\$ 1,960,800	\$ -	\$ -	\$ -	\$ 1,960,800
12	NW Storm Trunk Phase C	\$ 1,586,400	\$ -	\$ -	\$ -	\$ 1,586,400
13	NW Storm Trunk Phase D	\$ 756,000	\$ -	\$ -	\$ -	\$ 756,000
14	NW Storm Trunk Phase E	\$ 1,104,000	\$ -	\$ -	\$ -	\$ 1,104,000
16	SW Storm Trunk Phase A	\$ 1,095,600	\$ -	\$ -	\$ -	\$ 1,095,600
17	SE Storm Trunk Phase A	\$ 4,893,600	\$ -	\$ -	\$ -	\$ 4,893,600
18	NE Storm Trunk Phase A-E	\$ 6,060,000	\$ -	\$ -	\$ -	\$ 6,060,000
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 35,112,400	\$ -	\$ -	\$ -	\$ 35,112,400

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 annual rate/bylaw updates.

Stormwater Infrastructure Staging

Item	Project Description	Construction Start Year
6	Phase 0 - Storm outfall prelim engineering	2020
7	Phase 1 - Centralized stormwater reservoir	2028
8	Phase 2 - Outlet forcemain & pump station	2028
9	Phase 3 - Centralized stormwater reservoir expansion	2038
10	NW Storm Trunk Phase A	2028
11	NW Storm Trunk Phase B	2021
12	NW Storm Trunk Phase C	2028
13	NW Storm Trunk Phase D	2038
14	NW Storm Trunk Phase E	2046
16	SW Storm Trunk Phase A	2046
17	SE Storm Trunk Phase A	2050
18	NE Storm Trunk Phase A-E	2028

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

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

E4. Stormwater Offsite Infrastructure Benefiting Parties

The stormwater offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. During this review four potential benefiting parties were identified including:

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

- City of Chestermere Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- City of Chestermere Future Development (in Rates) – all growth-related infrastructure (i.e., leviable 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 staff.

Allocation of Stormwater Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
6	Phase 0 - Storm outfall prelim engineering	\$ 750,000			0.0%	100.0%
7	Phase 1 - Centralized stormwater reservoir	\$ 6,044,000			32.0%	68.0%
8	Phase 2 - Outlet forcemain & pump station	\$ 5,040,000			32.0%	68.0%
9	Phase 3 - Centralized stormwater reservoir expansion	\$ 5,261,600			72.0%	28.0%
10	NW Storm Trunk Phase A	\$ 560,400			32.0%	68.0%
11	NW Storm Trunk Phase B	\$ 1,960,800			4.0%	96.0%
12	NW Storm Trunk Phase C	\$ 1,586,400			32.0%	68.0%
13	NW Storm Trunk Phase D	\$ 756,000			72.0%	28.0%
14	NW Storm Trunk Phase E	\$ 1,104,000			100.0%	0.0%
16	SW Storm Trunk Phase A	\$ 1,095,600			100.0%	0.0%
17	SE Storm Trunk Phase A	\$ 4,893,600			100.0%	0.0%
18	NE Storm Trunk Phase A-E	\$ 6,060,000			32.0%	68.0%
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -				100.0%
		\$ 35,112,400				

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

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

E5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those percentages to project costs results in an offsite levy cost of approximately **\$17.44 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$0.75 million** in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$16.69 million**.

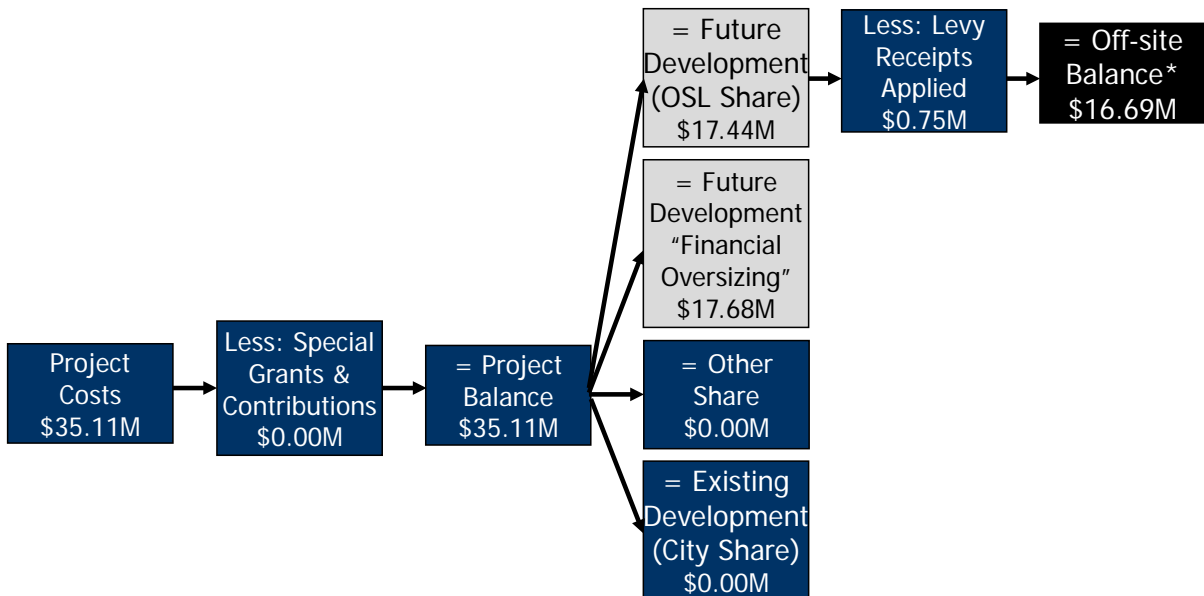
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
6	Phase 0 - Storm outfall prelim engineering	\$ 750,000	\$ -	\$ -	\$ 750,000
7	Phase 1 - Centralized stormwater reservoir	\$ 4,109,920	\$ -	\$ -	\$ 4,109,920
8	Phase 2 - Outlet forcemain & pump station	\$ 3,427,200	\$ -	\$ -	\$ 3,427,200
9	Phase 3 - Centralized stormwater reservoir expansion	\$ 1,473,248	\$ -	\$ -	\$ 1,473,248
10	NW Storm Trunk Phase A	\$ 381,072	\$ -	\$ -	\$ 381,072
11	NW Storm Trunk Phase B	\$ 1,882,368	\$ -	\$ -	\$ 1,882,368
12	NW Storm Trunk Phase C	\$ 1,078,752	\$ -	\$ -	\$ 1,078,752
13	NW Storm Trunk Phase D	\$ 211,680	\$ -	\$ -	\$ 211,680
14	NW Storm Trunk Phase E	\$ -	\$ -	\$ -	\$ -
16	SW Storm Trunk Phase A	\$ -	\$ -	\$ -	\$ -
17	SE Storm Trunk Phase A	\$ -	\$ -	\$ -	\$ -
18	NE Storm Trunk Phase A-E	\$ 4,120,800	\$ -	\$ -	\$ 4,120,800
100	Unallocated Offsite Levies Collected to Dec 31, 2016	\$ -	\$ 589,476	\$ -	\$ (589,476)
		\$ 17,435,040	\$ 589,476	\$ 156,410	\$ 16,689,154

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 **\$16.69 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 benefitting offsite levy area (see tables below). Allocations are denoted with a “1” below applicable area numbers. Benefiting areas were determined by City staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

2018			\$ 609,225.64
Interest on Opening Balance	\$ 12,184.51		\$ 621,410.15
Project Expenditures (OSL Share) As Reflected by City		\$ -	\$ 621,410.15
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ -	\$ 621,410.15
Offsite Levy Receipts	\$ -		\$ 621,410.15
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 621,410.15
Debenture Interest Expenditure		\$ -	\$ 621,410.15
Interest on Project Expenditure		\$ -	\$ 621,410.15
Interest on Offsite Levy Receipts	\$ -		\$ 621,410.15
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 621,410.15
Interest on Debenture Expenditure		\$ -	\$ 621,410.15
2019			\$ 621,410.15
Interest on Opening Balance	\$ 12,428.20		\$ 633,838.35
Project Expenditures (OSL Share) As Reflected by City		\$ -	\$ 633,838.35
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ -	\$ 633,838.35
Offsite Levy Receipts	\$ 142,624.03		\$ 776,462.38
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 776,462.38
Debenture Interest Expenditure		\$ -	\$ 776,462.38
Interest on Project Expenditure		\$ -	\$ 776,462.38
Interest on Offsite Levy Receipts	\$ 1,426.24		\$ 777,888.62
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 777,888.62
Interest on Debenture Expenditure		\$ -	\$ 777,888.62

E9. Development and Stormwater Infrastructure Staging Impacts

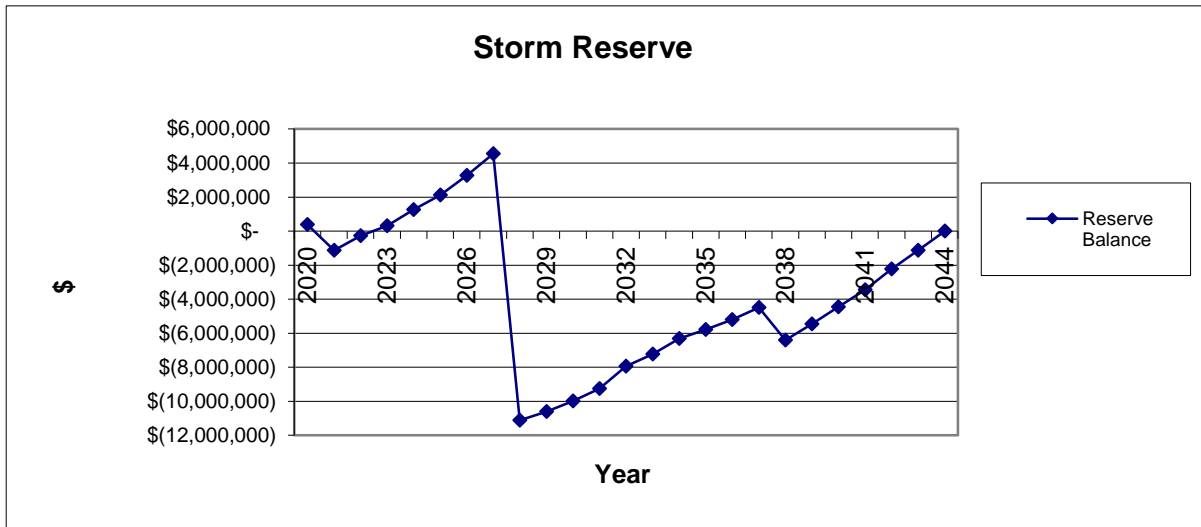
Stormwater offsite infrastructure will be constructed in staged fashion over the 25-year review period. We have reviewed the availability of offsite levy funds to meet these construction requirements and found that offsite levy reserve funds will not be sufficient to pay for construction of stormwater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

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.60%**¹⁰ interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **1.00%** 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).

¹⁰ The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.60%.

Anticipated Stormwater Offsite Levy Reserve Balances¹¹



Anticipated Stormwater Offsite Levy Reserve Balances

			Opening Balance	\$ 777,889
Year	Receipts	Expenditure	Interest	Balance
2020	\$ 360,605	\$ 750,000	\$ 3,885	\$ 392,379
2021	\$ 417,041	\$ 1,920,015	\$ (28,875)	\$ (1,139,471)
2022	\$ 875,770	\$ -	\$ (6,856)	\$ (270,557)
2023	\$ 578,425	\$ -	\$ 3,079	\$ 310,947
2024	\$ 938,526	\$ -	\$ 12,495	\$ 1,261,967
2025	\$ 836,464	\$ -	\$ 20,984	\$ 2,119,415
2026	\$ 1,119,622	\$ -	\$ 32,390	\$ 3,271,428
2027	\$ 1,234,642	\$ -	\$ 45,061	\$ 4,551,130
2028	\$ 904,438	\$ 16,296,069	\$ (281,853)	\$ (11,122,354)
2029	\$ 777,916	\$ -	\$ (268,955)	\$ (10,613,393)
2030	\$ 887,784	\$ -	\$ (252,866)	\$ (9,978,475)
2031	\$ 956,502	\$ -	\$ (234,571)	\$ (9,256,544)
2032	\$ 1,512,284	\$ -	\$ (201,351)	\$ (7,945,611)
2033	\$ 897,116	\$ -	\$ (183,261)	\$ (7,231,755)
2034	\$ 1,072,412	\$ -	\$ (160,143)	\$ (6,319,486)
2035	\$ 681,167	\$ -	\$ (146,596)	\$ (5,784,916)
2036	\$ 715,729	\$ -	\$ (131,799)	\$ (5,200,986)
2037	\$ 833,868	\$ -	\$ (113,545)	\$ (4,480,663)
2038	\$ 1,049,971	\$ 2,813,049	\$ (162,337)	\$ (6,406,078)
2039	\$ 1,086,805	\$ -	\$ (138,301)	\$ (5,457,575)
2040	\$ 1,121,892	\$ -	\$ (112,728)	\$ (4,448,410)
2041	\$ 1,094,155	\$ -	\$ (87,211)	\$ (3,441,466)
2042	\$ 1,263,311	\$ -	\$ (56,632)	\$ (2,234,787)
2043	\$ 1,133,221	\$ -	\$ (28,641)	\$ (1,130,207)
2044	\$ 1,130,207	\$ -	\$ 0	\$ 0

¹¹ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the same \$X rate paid in the future (i.e., it is discounted).

APPENDIX F: RECREATION OFFSITE INFRASTRUCTURE

F1. Recreation Offsite Infrastructure Costs

To support future growth, recreation offsite infrastructure is required. The estimated cost of this infrastructure is based upon: (a) actual construction costs to the cut-off date, (b) debenture interest associated with financing, and (c) future cost estimates. Total cost is approximately **\$93.58 million** as outlined in the table below. Actual costs, debenture interest (if any), and cost estimates were provided by City staff. It is important to note that these costs represent “gross” costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the “net” costs for future development are determined.

Summary of Recreation Offsite Infrastructure

Item	Project Description	Cost of Completed Work & Historical Interest	Future Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Land, Phase 1	\$ -	\$ -	\$ 155,000	\$ 155,000
2	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ -	\$ -	\$ 39,385,500	\$ 39,385,500
3	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ -	\$ -	\$ 54,038,600	\$ 54,038,600
		\$ -	\$ -	\$ 93,579,100	\$ 93,579,100

*Costs estimates are reflected in current dollars.

**Estimates include engineering costs and contingencies.

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

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

F2. Recreation Offsite Infrastructure Grants & Contributions to Date

The MGA enables the City to allocate the costs of offsite infrastructure to future development, other than those costs that have been provided by way of special grant or contribution (i.e., contributed infrastructure). The City has/will receive **\$2.24 million** in special grants and contributions for recreation offsite levy infrastructure as shown in the table below (note, if the City receives other grants or contributions in the future, it will be reflected in one of the annual updates and rates adjusted accordingly). The result is that the total reduced project estimated cost is **\$91.34 million**.

Special Grants and Contributions for Recreation Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Reduced Project Estimated Cost
1	Land, Phase 1	\$ 155,000	\$ -	\$ -	\$ 155,000
2	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ 39,385,500	\$ -	\$ 2,243,290	\$ 37,142,210
3	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ 54,038,600	\$ -	\$ -	\$ 54,038,600
		\$ 93,579,100	\$ -	\$ 2,243,290	\$ 91,335,810

F3. Recreation Infrastructure Staging

The timing of construction is used to determine the impact of inflation on cost, the impact of forecast reserve balances, and the estimate of financial oversizing (described in the Section that follows). The City anticipates construction of offsite infrastructure as outlined in the table

below. Note, if this schedule is adjusted in the future, it will be reflected in one of the annual rate/bylaw updates.

Recreation Infrastructure Staging

Item	Project Description	Construction Start Year
1	Land, Phase 1	2021
2	Rec Facility Phase 1, Field House, Fitness, Track (no field)	2021
3	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	2035

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

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

F4. Recreation Offsite Infrastructure Benefiting Parties

The recreation offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by City staff and engineering advisors. During this review four potential benefiting parties were identified including:

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

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

Allocation of Recreation Infrastructure to Benefiting Parties

Item	Project Description	Reduced Project Estimated Cost	Muni Share %	Other Stakeholder Share	Developer Share Beyond 25 Yrs (Financial Oversizing %)	OSL / Developer Share %
1	Land, Phase 1	\$ 155,000	38.0%		2.5%	59.5%
2	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ 37,142,210	38.0%		2.5%	59.5%
3	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ 54,038,600	27.0%		43.8%	29.2%
		\$ 91,335,810				

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

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

F5. Existing Receipts & Adjusted Levy Cost

Using the offsite levy share percentages shown in the previous section and applying those

percentages to project costs results in an offsite levy cost of approximately **\$37.98 million**. However, prior to allocating these costs to benefiting areas, existing offsite levy receipts collected from developers need to be considered in determining the residual/net costs to developers. The City has collected **\$0.31** in offsite levies to date, and results in an adjusted offsite levy cost of approximately **\$37.67 million**.

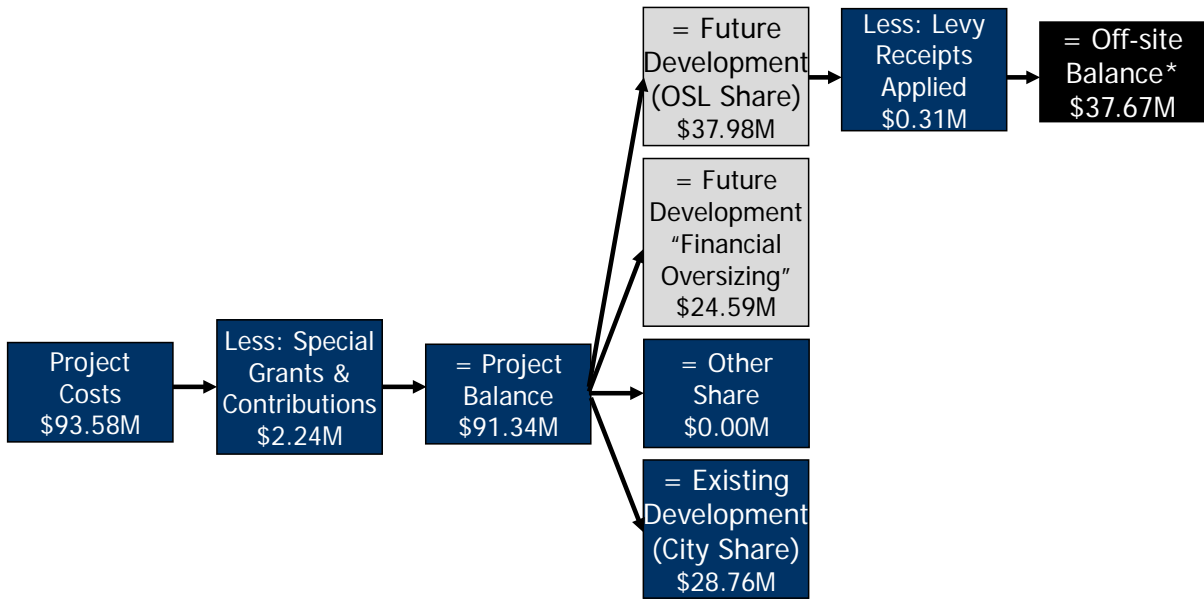
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected to Dec 31, 2016	Offsite Levy Funds Collected Starting Jan 1, 2017	Adjusted Developer (Levy) Cost
1	Land, Phase 1	\$ 92,256	\$ -	\$ 36,555	\$ 55,701
2	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ 22,107,043	\$ -	\$ 152,896	\$ 21,954,147
3	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ 15,779,271	\$ -	\$ 115,749	\$ 15,663,522
		\$ 37,978,571	\$ -	\$ 305,200	\$ 37,673,370

F6. Summary of Recreation Offsite Levy Cost Flow-through

As shown in the figure below, the total cost for recreation infrastructure that forms the basis of the rate is approximately **\$37.67 million**. The cost allocations to each benefiting party are based on the benefiting percentages shown in Section F4. The offsite levy balance (due from developers) is allocated to various benefiting areas (as described in the next section).

Total Recreation Offsite Levy Costs



F7. Recreation Infrastructure Benefiting Areas

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

Benefiting Areas for Recreation Offsite Infrastructure

Item	Project Description	Developer Cost	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	3.4	3.5	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5
1	Land, Phase 1	\$ 55,701	1	1	1	1	1	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	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ 21,954,147	1	1	1	1	1	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	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ 15,663,522	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		\$ 37,673,370																														

Item	Project Description	Developer Cost	7.1	7.2	7.3	7.4	7.5	8.1	8.2	8.3	8.4	8.5	9.1	9.2	9.3	9.4	9.5	10.1	10.2	10.3	10.4	10.5	11.1	11.2	11.3	11.4	11.5	12.1	12.2	12.3	12.4	12.5
1	Land, Phase 1	\$ 55,701	1	1	1	1	1	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	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ 21,954,147	1	1	1	1	1	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	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ 15,663,522	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		\$ 37,673,370																														

Item	Project Description	Developer Cost	7.1	7.2	7.3	7.4	7.5	8.1	8.2	8.3	8.4	8.5	9.1	9.2	9.3	9.4	9.5	10.1	10.2	10.3	10.4	10.5	11.1	11.2	11.3	11.4	11.5	12.1	12.2	12.3	12.4	12.5
1	Land, Phase 1	\$ 55,701	1	1	1	1	1	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	Rec Facility Phase 1, Field House, Fitness, Track (no field)	\$ 21,954,147	1	1	1	1	1	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	Rec Facility Phase 2, Arenas (3 sheets) - delayed construction to 2035	\$ 15,663,522	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
		\$ 37,673,370																														

F8. Reserve Balance

The balance of the City's recreation reserve at December 31st, 2019 is **\$2,619,289**. This updated balance takes into consideration public facilities fees collected and transferred to the recreation account to end-2019.

Recreation Offsite Levy Reserve Balance

Description	Dr	Cr	Balance
Offsite Levy Expenditures to December 31, 2016		\$ -	\$ -
Offsite Levy Receipt Allocations to December 31, 2016	\$ -		\$ -
Debenture Interest Expenditure to December 31, 2016		\$ -	\$ -
Unallocated Receipts to December 31, 2016	\$ -		\$ -
Opening Balance			\$ -
2017			\$ -
Interest on Opening Balance			\$ -
Project Expenditures (OSL Share) As Reflected by City		\$ -	\$ -
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ -	\$ -
Offsite Levy Receipts	\$ -		\$ -
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ -
Debenture Interest Expenditure		\$ -	\$ -
Interest on Project Expenditure		\$ -	\$ -
Interest on Offsite Levy Receipts	\$ -		\$ -
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ -
Interest on Debenture Expenditure		\$ -	\$ -
2018			\$ -
Interest on Opening Balance	\$ -		\$ -
Project Expenditures (OSL Share) As Reflected by City		\$ -	\$ -
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ -	\$ -
Offsite Levy Receipts	\$ -		\$ -
Public Facilities Fees Added From To Rec Levy Account	\$ 2,243,289.63		\$ 2,243,289.63
Debenture Interest Expenditure		\$ -	\$ 2,243,289.63
Interest on Project Expenditure		\$ -	\$ 2,243,289.63
Interest on Offsite Levy Receipts	\$ -		\$ 2,243,289.63
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ 22,432.90		\$ 2,265,722.53
Interest on Debenture Expenditure		\$ -	\$ 2,265,722.53
2019			\$ 2,265,722.53
Interest on Opening Balance	\$ 45,314.45		\$ 2,311,036.98
Project Expenditures (OSL Share) As Reflected by City		\$ -	\$ 2,311,036.98
Net Project Expenditures (OSL Share) In Addition to Amount Reflected By City		\$ -	\$ 2,311,036.98
Offsite Levy Receipts	\$ 305,200.23		\$ 2,616,237.21
Offsite Levy Receipts Collected Under Old Agreement or Old Bylaw (if any)		\$ -	\$ 2,616,237.21
Debenture Interest Expenditure		\$ -	\$ 2,616,237.21
Interest on Project Expenditure		\$ -	\$ 2,616,237.21
Interest on Offsite Levy Receipts	\$ 3,052.00		\$ 2,619,289.21
Interest on Receipts Collected Under Old Agreement or Old Bylaw (if any)	\$ -		\$ 2,619,289.21
Interest on Debenture Expenditure		\$ -	\$ 2,619,289.21

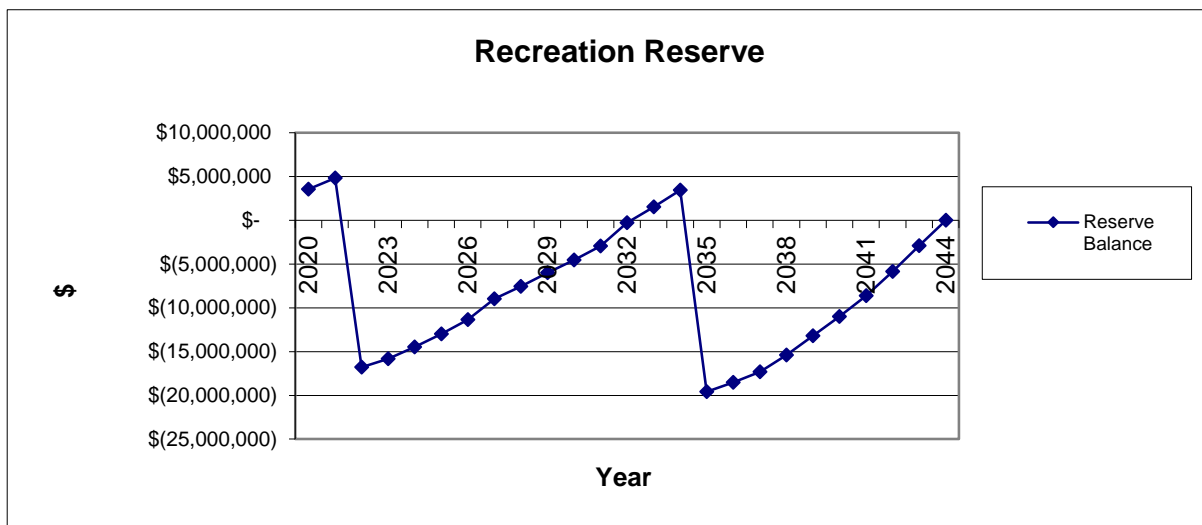
F9. Development and Recreation Infrastructure Staging Impacts

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

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.60%**¹² interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **1.00%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast water levy reserve balances over the 25-year development period.

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

Anticipated Recreation Offsite Levy Reserve Balances¹³



¹² The 20-year debenture rate at the Alberta Capital Finance Authority at the time of writing was ~2.60%.

¹³ In determining staging adjustments, the offsite levy model also applies inflation to future rates. In so doing it acknowledges that rates must keep pace with inflation just as costs do. Also, it acknowledges that an offsite levy rate of \$X paid today is not worth the same as the same \$X rate paid in the future (i.e., it is discounted).

Anticipated Recreation Offsite Levy Reserve Balances

		Opening Balance		\$ 2,619,289
Year	Receipts	Expenditure	Interest	Balance
2020	\$ 911,839	\$ -	\$ 35,311	\$ 3,566,439
2021	\$ 1,320,272	\$ 94,101	\$ 47,926	\$ 4,840,536
2022	\$ 1,807,315	\$ 23,000,168	\$ (425,160)	\$ (16,777,477)
2023	\$ 1,334,659	\$ -	\$ (401,513)	\$ (15,844,331)
2024	\$ 1,718,489	\$ -	\$ (367,272)	\$ (14,493,114)
2025	\$ 1,838,013	\$ -	\$ (329,033)	\$ (12,984,133)
2026	\$ 1,905,393	\$ -	\$ (288,047)	\$ (11,366,788)
2027	\$ 2,619,092	\$ -	\$ (227,440)	\$ (8,975,136)
2028	\$ 1,615,794	\$ -	\$ (191,343)	\$ (7,550,684)
2029	\$ 1,705,460	\$ -	\$ (151,976)	\$ (5,997,200)
2030	\$ 1,569,280	\$ -	\$ (115,126)	\$ (4,543,046)
2031	\$ 1,675,951	\$ -	\$ (74,544)	\$ (2,941,640)
2032	\$ 2,683,751	\$ -	\$ (6,705)	\$ (264,593)
2033	\$ 1,771,995	\$ -	\$ 15,074	\$ 1,522,476
2034	\$ 1,893,063	\$ -	\$ 34,155	\$ 3,449,694
2035	\$ 1,552,219	\$ 24,108,556	\$ (496,773)	\$ (19,603,416)
2036	\$ 1,552,730	\$ -	\$ (469,318)	\$ (18,520,004)
2037	\$ 1,626,419	\$ -	\$ (439,233)	\$ (17,332,819)
2038	\$ 2,317,375	\$ -	\$ (390,402)	\$ (15,405,845)
2039	\$ 2,523,496	\$ -	\$ (334,941)	\$ (13,217,290)
2040	\$ 2,488,124	\$ -	\$ (278,958)	\$ (11,008,124)
2041	\$ 2,600,904	\$ -	\$ (218,588)	\$ (8,625,808)
2042	\$ 2,914,615	\$ -	\$ (148,491)	\$ (5,859,684)
2043	\$ 3,042,512	\$ -	\$ (73,246)	\$ (2,890,419)
2044	\$ 2,890,419	\$ -	\$ (0)	\$ (0)