2019 OFF-SITE LEVY ANNUAL REPORT

AS DEFINED IN OFF-SITE LEVY BYLAW NO. 2015-07

FOR THE YEAR ENDED DECEMBER 31, 2019

One Parkland: Powerfully Connected.

April 2020

Planning & Development Services
Parkland County

parkland county

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2 INTRODUCTION

2.1 Introduction

Parkland County enacted Bylaw 2015-07 on April 28, 2015 ("Off-Site Levy Bylaw"). The Bylaw defines offsite levy charges pertaining to water, sanitary, transportation, and stormwater offsite infrastructure for the Big Lake, Acheson and Fifth Meridian Area Structure Plan areas of the County.

The Off-Site Levy Bylaw stipulates that on or before April 30th of each year, an annual Off-Site Levy Report is to be provided to Council regarding off-site levies imposed and collected by the County in the previous year and the off-site levy rates to be imposed in the current year. The County wishes to update the offsite infrastructure included in the Bylaw in alignment with the County's latest capital/master plans, and ensuring updated costs and development forecasts are reflected fairly and equitably in new rates, thereby ensuring a financially sustainable community. This report outlines the methodology and information used in establishing offsite levy rates for the County, as well as other key findings and recommendations.

2.2 Methodology

Parkland County has various infrastructure capital/master plans, and these plans have been used by County staff as a start point for developing key information for this offsite levy rate review. County staff reviewed existing plans and identified offsite projects for water, sanitary, transportation, and stormwater infrastructure. The County's assessment also included determination of benefits to existing development, future development, and benefiting areas.

During this review, offsite levy information and rates were updated to December 31st, 2019, the most current completed year-end. Information pertaining to 2019 and prior is treated as an "actual". Information pertaining to 2020 and beyond is treated as an "estimate". When the next update is completed in 2021, 2020 information will be converted from "estimates" to "actuals".

Offsite levy rates are not intended to stay static; they are based upon assumptions and the best available data of the day. Planning assumptions, cost estimates, infrastructure staging 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. Should information change, it will be reflected in a future update, and rates adjusted accordingly.

The County utilizes the CORVUS offsite levy model to manage rates. This model is in use in dozens of Alberta municipalities. The model utilizes a "full cost" methodology where by the infrastructure costs, inflation, construction staging, development staging, financing costs, and reserve interest earning and charging impacts are all used to determine rates that allocate all costs to developers on an equitable basis, based on degree of benefit. With the CORVUS model in place, the County is in a position to quickly and efficiently update offsite levy rates each year upon completion of year-end finance activities.

2.3 Definitions

Parkland County defines offsite levy infrastructure as follows:

2.3.1 Road Offsite Infrastructure

Parkland County maintains a roadway classification system consistent with the definition of arterial, collector, and local roads as outlined within Parkland County's Engineering Design Standards, which are consistent with the Transportation Association of Canada's Manual of Geometric Design Standards for

Canadian Roads. Local roads within new development areas are constructed by developers, at 100% their cost. These roadways provide direct access to the business locations.

Arterial and Collector roadways are typically designed and constructed to accommodate through traffic, with controlled intersection spacing and are considered a benefit to the County at large. Therefore, new developments should contribute their proportionate share of the cost of these arterial and collector roads. Costs associated with development of any of the arterial and collector roads within Parkland County will also include overland drainage directly associated with roadway drainage (ditches) as well as any transit, sidewalk, street and traffic control light infrastructure.

2.3.2 Water Offsite Infrastructure

Parkland County's water supply is purchased from EPCOR through the Capital Region Parkland Water Services Commission (CRPWSC). The treated water is distributed by Parkland County to its customers through its waterworks system consisting of water storage reservoirs and pumping facilities, primary supply mains from the regional line and distribution mains. Parkland County's philosophy regarding its waterworks system improvements is that all distribution mains which serve more than the local development by looping identified in the Acheson Big Lake Water Servicing Study, treated water storage reservoirs, pumping facilities, pressure reducing valves, and water quality monitoring stations will provide benefit to the entire water distribution system and thus the cost of such facilities is then assessed proportionately against all benefiting lands through a Water Offsite Levy Charge. The County will commit to front-ending infrastructure as funds are available and will pursue the design and construction of large scale water infrastructure projects such as water reservoirs and pumphouses. Any infrastructure expenditures by the County will be incurred with expectations of full cost recovery. Capital improvements to the regional water supply system are the responsibility of the CRPWSC of which Parkland County is a member. The costs of such improvements are assessed proportionately against Parkland County through the Commission's water utility rate structure and hence these costs are not included in the Parkland County's Water Offsite Levy Charge.

2.3.3 Sanitary Offsite Infrastructure

The sanitary sewerage collection system in Parkland County is comprised of a series of underground local, collector and trunk mains intercepting wastewater from the various individual contributors and conveying this wastewater to a point(s) of discharge for treatment and ultimate disposal. The point(s) of discharge for Parkland County sanitary sewer is the Alberta Capital Region Wastewater Commission (ACRWC) Transmission Line, which conveys the wastewater to the Region Wastewater Treatment Plant, located south east of the City of Fort Saskatchewan. The ACRWC treats the sewage to the required standards and the effluent discharges to the North Saskatchewan River. Capital improvements to the Regional Treatment Plant and Transmission Line are the responsibility of the ACRWC of which Parkland County is a member. The costs of such capital improvements are assessed proportionately against Parkland County through the Commission's sewage utility rate structure and hence are not included in the Parkland County's Sanitary Sewer Offsite Levy calculations. Should ACRWC, at a future date, implement a charge for infrastructure for developing areas, Parkland County will adjust the levy charges accordingly.

Parkland County's existing sanitary sewer systems have generally been developed as gravity systems. With the exception of a few localized low areas identified in the Acheson and Big Lake Area Sanitary Servicing Update 2016, which may require a sewage lift station servicing one or more benefitting areas, the majority of Parkland County's sanitary sewer systems can continue to be developed as gravity systems. Sanitary sewer systems typically have a hierarchical classification based primarily upon the size of diameter of pipe and the area they serve. In the case of the sanitary sewer system in Parkland County, developments are 100% responsible for the costs of all local and collector sanitary mains serving the

development. Collector mains and lift stations with forcemains serving more than one benefitting area as well as all trunks, as identified in the Acheson and Big Lake Area Sanitary Servicing Update 2016, benefit the entire wastewater distribution basin they collect from and thus the cost of such facilities is then assessed proportionately against all benefiting lands through a Sewer Offsite Levy Charge.

2.3.4 Storm Offsite Infrastructure

Parkland County's storm infrastructure is generally categorized as either overland drainage or underground storm infrastructure. Overland drainage includes drainage ditches, storm water management facilities (SWMFs), flow control infrastructure such as berms and weirs, road ditches, and culverts. Road ditches and culverts are included in the road offsite infrastructure. SWMFs, flow control infrastructure and local overland drainage ditches are considered local and the developments are 100% responsible for the costs.

The underground Acheson storm system servicing Zones 4, 5, 6, 7 & 8 with a large diameter outfall trunk and associated collector mains carrying the stormwater from these zones to a constructed wetland in Lois Hole Provincial Park at Big Lake. The storm outfall and collector trunks benefits the entire storm basin of Zones 4, 5, 6, 7 & 8 thus the cost of the trunk and construction is then assessed proportionately against all benefitting lands through a Storm Offsite Levy Charge.

3 KEY FINDINGS

Key findings pertaining to the establishment of County offsite levy rates for this review are as follows:

3.1 Offsite Infrastructure Costs

Offsite infrastructure costs to be included in the offsite levy bylaw total approximately **$440.67 million**. An overview of offsite infrastructure costs and maps is provided in Appendices B1 (Water), C1 (Sanitary), D1 (Transportation), and E1 (Stormwater).

Before determining how the infrastructure costs will be allocated to parties that benefit (e.g., existing/residual 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 review, the County has identified approximately **$15.08 million** in grants and contributions. An overview of grants and contributions and resulting net costs is provided in Appendices B2, C2, D2, and E2.

The share of costs which benefits existing/residual development (the County's share) is **$0.09 million**; and, the share of costs which benefits other stakeholders (e.g., neighbouring municipalities) is **$0.00**.

The share of costs which benefits future development to ultimate build-out totals approximately **$425.49 million** and is based on the allocations shown in Appendices B4, C4, D4, and E4. However, **$175.95 million** of the cost which benefits 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, and E3.

Of the **$425.49 million** in total offsite infrastructure costs which benefits future development, the portion that is within the 25-year review period and included in rates today (the offsite levy share) is approximately **$249.54 million**, as shown in the table below. A complete summary of offsite infrastructure net cost "flow-thru" is provided in Appendices B6, C6, D6, and E6.

Summary of Infrastructure Costs & Allocations

Infrastructure	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	$ 7,953,986	$ -	$ -	$ 73,626,155	$ 118,075,223	**$ 199,655,365**
Water	$ 2,893,178	$ 21,527	$ -	$ 69,751,588	$ 64,510,350	**$ 137,176,643**
Sanitary	$ 2,952,690	$ 68,822	$ -	$ 27,999,899	$ 28,343,833	**$ 59,365,243**
Stormwater	$ 1,280,311	$ -	$ -	$ 4,582,236	$ 38,605,630	**$ 44,468,178**
Total	$ 15,080,165	$ 90,349	$ -	$ 175,959,879	$ 249,535,036	**$ 440,665,429**

3.2 Offsite Levy Collections

Before allocating infrastructure costs to benefitting lands, offsite levy costs must be reduced by the total levies collected to date. Up to December 31, 2019, the County has collected **$28.04 million** as summarized in the table below. Details associated with levy collections are shown in Appendices B5, C5, D5, and E5.

Summary of Levies Collected to Date

Levies Collected To Date	
Transportation	$ 15,118,240
Water	$ 2,835,016
Sanitary	$ 1,307,039
Stormwater	$ 8,786,508
Total	$ 28,046,803

3.3 Offsite Levy Areas and Forecast Development

To facilitate the allocation of infrastructure costs to those lands that benefit from the infrastructure, the County is parsed into **123** offsite levy areas. The area boundaries, numbering schema, and area measurements are described in Appendix A along with Offsite Benefitting Areas Maps. An overview of offsite infrastructure allocations to each benefitting area is provided in Appendices B7, C7, D7, and E7.

To calculate offsite levy rates, it is necessary to forecast the amount of land that will develop during the next 25-year review period. Land development forms the denominator of the rate calculation. A larger denominator reduces rates but could potentially result in under-collection thereby placing an increased burden on tax payers. A smaller denominator increases rates but could potentially result in over-collection thereby placing an increased burden on future development. Accordingly, land development forecasts need to be: (a) reasonable and reflect current planning assumptions including the current pace of development in the community, and (b) updated regularly.

For this review, the County is forecasting development of approximately **1,960 hectares** over the 25-year review period. The land development forecast is shown in Appendix A2.

3. 4 Offsite Levy Reserves

The County is currently managing offsite levy receipts and withdrawals via four reserves/accounts (i.e., one reserve/account for each infrastructure type), and this is in alignment with Municipal Government Act (MGA) requirements. The reason the MGA stipulates the requirement for separate accounts 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.). Offsite levy reserves/accounts (both actual and forecast) are impacted by interest. Actual reserve inflows and forecast reserve balances that are in a positive/surplus position earn interest (as required by the

MGA). Actual reserve outflows and forecast reserve balances that are in a negative/deficit position are charged interest (forecast balances that are negative indicate the requirement for front-ending).

At end 2019, the water deferred revenue account (unspent offsite levy plus interest) reflected a balance of approximately **$3.20 million**.

At end 2019, the sanitary deferred revenue account (unspent offsite levy plus interest) reflected a balance of approximately **$0.87 million**.

At end 2019, the transportation deferred revenue account (unspent offsite levy plus interest) reflected a balance of approximately **$15.13 million.**

At end 2019, the stormwater deferred revenue account (unspent offsite levy plus interest) reflected a balance of approximately **$3.71 million**.

3.5 Tracking and Responsibility of Front-ending

Because front-ending balances represent debts owed to front-ending parties (including the County), they need to be tracked separately and properly documented. This documentation ensures debts will be repaid as future development occurs and offsite levies are collected.
Parkland County (Finance department) utilizes deferred revenue accounts to manage offsite levy account balances. The Finance department tracks offsite levy receipts and accrues monthly interest on offsite levies collected.

Finance and Engineering track levy-funded project expenditures. In addition to tracking project expenditures, Finance also tracks the financing sources for the project expenditures to determine the front-ending parties and the front-ending balances. Developers may also construct infrastructure and provide the County with a finished or “contributed” asset, when this occurs, Finance and Planning track the front-ending amounts once project completion certificates are received from developers. Interest are accrued at the end of the year on front-ending balances.

As part of the Offsite Levy update process, Finance is responsible for updating the offsite levy balance which captures; offsite levies collected and associated accrued interest, offsite levy project expenditures, and interest accrued on front-ending balances based on information received from other departments. Based on the amount available in the offsite levy deferred revenue account, the Offsite Levy Committee makes a recommendation on payments of front-ending balances.

4 RATES

For future development to pay for its share of the **$440.67 million** offsite infrastructure costs contained in the County's capital/master plans, rates are approximately **$107,495** per net hectare on a weighted average basis, as shown in the tables below.

Since the last update, rates have increased from an average of $92,448 per net hectare to $**107,495 per net hectare**, a 14% increase over the previous year. The primary reason that drove the rate increase is due to adjustments to transportation projects cost estimates which increased from $148.82 million to $169.30 million based on updated cost estimates provided in the Spruce Valley Road & Acheson Road conceptual design reports completed in June 2019.

Offsite Levy Rates: Highs, Lows, and Weighted Averages

	Transportation Charges	Water Charges	Sanitary Charges	Storm Charges
High	$ 176,029	$ 65,514	$ 86,306	$ 104,664
Low	$ 3,011	$ 9,127	$ -	$ -
Weighted Average	$ 50,508	$ 28,755	$ 13,375	$ 14,857

**Highs, Lows, and Averages are shown for information purposes only. Developers pay the actual rate applicable to their specific development area and development type.*

Summary of Offsite Levies by Benefitting Area

Area #	Transportation Levies	Water Levies	Sanitary Levies	Stormwater Levies	Total
101.0	$76,784	$20,318	$547	$103	$97,751
102.0	$76,784	$20,318	$547	$103	$97,751
103.0	$76,784	$20,318	$82,690	$103	$179,895
103.1	$76,784	$20,318	$86,306	$103	$183,510
104.0	$76,784	$20,318	$82,690	$103	$179,895
104.1	$76,784	$20,318	$82,690	$103	$179,895
105.0	$76,784	$20,318	$36,592	$103	$133,796
105.1	$76,784	$26,716	$86,306	$103	$189,908
106.0	$76,784	$20,318	$36,592	$103	$133,796
107.0	$76,784	$20,319	$85	$103	$97,291
108.0	$76,784	$20,319	$1,326	$103	$98,531
109.0	$76,784	$20,319	$85	$103	$97,291
110.0	$76,784	$20,318	$36,592	$103	$133,796
111.0	$76,784	$20,318	$36,592	$103	$133,796
111.1	$76,784	$26,716	$4,162	$103	$107,765
201.0	$35,966	$18,293	$82,690	$103	$137,051
201.1	$35,966	$24,691	$86,306	$103	$147,065
202.0	$35,966	$18,293	$85	$103	$54,446
203.0	$35,966	$18,293	$85	$103	$54,446
204.0	$35,966	$18,294	$10,423	$103	$64,785
205.0	$35,966	$18,294	$8,137	$103	$62,499
206.0	$35,966	$18,293	$6,541	$103	$60,902
207.0	$35,966	$18,293	$85	$103	$54,446
208.0	$35,966	$18,293	$82,690	$103	$137,051

208.1	$35,966	$24,691	$86,306	$103	$147,065

301.0	$176,029	$18,940	$125	$103	$195,196
302.0	$176,029	$18,940	$125	$103	$195,196
302.1	$176,029	$18,940	$3,620	$103	$198,692
303.0	$176,029	$18,940	$125	$103	$195,196
304.0	$176,029	$18,940	$41,741	$103	$236,813

401.0	$41,453	$17,415	$48,018	$16,899	$123,785
401.1	$41,453	$17,415	$51,053	$16,899	$126,820
402.0	$41,453	$17,415	$5,901	$103	$64,871
403.0	$41,453	$17,416	$21,826	$103	$80,798
404.0	$41,453	$17,416	$21,826	$103	$80,798
405.0	$41,453	$17,416	$22,677	$103	$81,648
406.0	$41,453	$17,416	$22,677	$103	$81,648
407.0	$41,453	$17,415	$5,901	$28,728	$93,497
408.0	$41,453	$17,415	$48,018	$16,899	$123,785
408.1	$41,453	$17,415	$51,053	$16,899	$126,820

501.0	$79,331	$30,797	$21,714	$51,094	$182,936
502.0	$79,331	$30,796	$1,510	$51,094	$162,731
502.1	$79,331	$30,796	$4,545	$51,094	$165,766
503.0	$79,331	$30,796	$1,064	$35,991	$147,182
503.1	$79,331	$30,796	$4,099	$35,991	$150,216
504.0	$79,331	$30,796	$8,222	$29,990	$148,339
504.1	$79,331	$30,796	$11,256	$29,990	$151,373
505.0	$79,331	$30,796	$603	$27,831	$138,561
506.0	$79,331	$30,796	$11,032	$33,952	$155,110
507.0	$79,331	$30,796	$603	$51,094	$161,824
508.0	$79,331	$30,797	$603	$51,094	$161,825

601.0	$32,017	$35,345	$18,502	$19,857	$105,722
602.0	$32,017	$35,345	$18,502	$28,641	$114,506
603.0	$32,017	$35,345	$8,667	$67,389	$143,419
604.0	$32,017	$35,345	$8,667	$104,664	$180,694
605.0	$32,017	$35,345	$356	$104,664	$172,383
606.0	$32,017	$35,345	$356	$104,664	$172,383
607.0	$32,017	$35,345	$356	$103	$67,822
608.0	$32,017	$35,345	$38,492	$19,857	$125,711

701.0	$100,645	$23,527	$13,611	$47,078	$184,860
702.0	$100,645	$23,527	$13,611	$47,078	$184,860
703.0	$100,645	$23,527	$11,032	$45,770	$180,973
704.0	$100,645	$23,527	$603	$45,770	$170,545
705.0	$100,645	$23,527	$14,158	$37,052	$175,382
706.0	$100,645	$23,527	$14,158	$46,765	$185,095
707.0	$100,645	$23,527	$16,052	$46,765	$186,989
708.0	$100,645	$23,527	$16,052	$47,078	$187,302

801.0	$53,190	$41,528	$39,221	$29,601	$163,539
802.0	$53,190	$41,528	$1,085	$32,262	$128,064
803.0	$53,190	$41,528	$1,085	$104,664	$200,466
804.0	$53,190	$41,528	$1,085	$104,664	$200,466
805.0	$53,190	$41,528	$1,085	$104,664	$200,466
806.0	$53,190	$41,528	$1,085	$104,664	$200,466
807.0	$53,190	$41,528	$1,085	$44,091	$139,893
808.0	$53,190	$41,528	$1,085	$44,091	$139,893

901.0	$27,979	$60,116	$85	$103	$88,283
902.0	$27,979	$60,116	$85	$103	$88,283
903.0	$27,979	$60,116	$85	$103	$88,283
904.0	$27,979	$60,116	$85	$103	$88,283

1001.0	$15,931	$33,009	$85	$103	$49,127
1002.0	$15,931	$33,009	$85	$103	$49,127
1003.0	$15,931	$33,009	$85	$103	$49,127
1004.0	$15,931	$33,009	$85	$103	$49,127
1005.0	$15,931	$33,009	$85	$103	$49,127
1006.0	$15,931	$33,009	$8,603	$103	$57,645
1007.0	$15,931	$33,009	$8,603	$103	$57,645

1101.0	$3,011	$9,128	$2,081	$103	$14,323
1102.0	$3,011	$9,127	$2,081	$103	$14,322
1103.0	$37,170	$9,128	$914	$103	$47,315
1104.0	$37,170	$9,128	$914	$103	$47,315
1105.0	$37,170	$9,128	$914	$103	$47,315
1106.0	$37,170	$9,128	$914	$103	$47,315
1107.0	$37,170	$9,128	$914	$103	$47,315
1108.0	$37,170	$9,128	$914	$103	$47,315
1109.0	$37,170	$9,128	$1,326	$103	$47,727
1110.0	$37,170	$9,128	$1,326	$103	$47,727
1111.0	$37,170	$9,128	$914	$103	$47,315
1112.0	$37,170	$10,675	$85	$103	$48,033
1113.0	$37,170	$10,675	$85	$103	$48,033

1201.0	$69,782	$35,259	$-	$-	$105,041
1202.0	$69,782	$65,514	$23,987	$-	$159,283
1203.0	$69,782	$45,740	$5,760	$-	$121,282
1204.0	$69,782	$35,259	$-	$-	$105,041
1205.0	$69,782	$35,259	$-	$-	$105,041

1301.0	$80,048	$65,514	$23,987	$-	$169,549
1302.0	$80,048	$65,514	$23,987	$-	$169,549
1303.0	$80,048	$35,259	$-	$-	$115,307
1304.0	$80,048	$45,740	$5,760	$-	$131,548

1401.0	$80,048	$65,514	$23,987	$-	$169,549
1402.0	$80,048	$35,259	$-	$-	$115,307
1403.0	$80,048	$35,259	$-	$-	$115,307
1404.0	$80,048	$35,259	$-	$-	$115,307
1405.0	$80,048	$35,259	$-	$-	$115,307

1501.0	$24,045	$10,675	$24,820	$103	$59,643
1502.0	$24,045	$10,675	$24,820	$103	$59,643

1600.1	$15,931	$33,009	$8,827	$103	$57,869
1600.2	$15,931	$33,009	$17,345	$103	$66,387
1600.3	$35,966	$18,293	$8,827	$103	$63,188
1600.4	$35,966	$18,293	$8,827	$103	$63,188
1600.5	$35,966	$18,293	$8,827	$103	$63,188
1600.6	$35,966	$18,294	$8,827	$103	$63,189
1600.7	$41,453	$17,415	$8,827	$103	$67,797
1600.8	$41,453	$17,415	$56,760	$16,899	$132,527

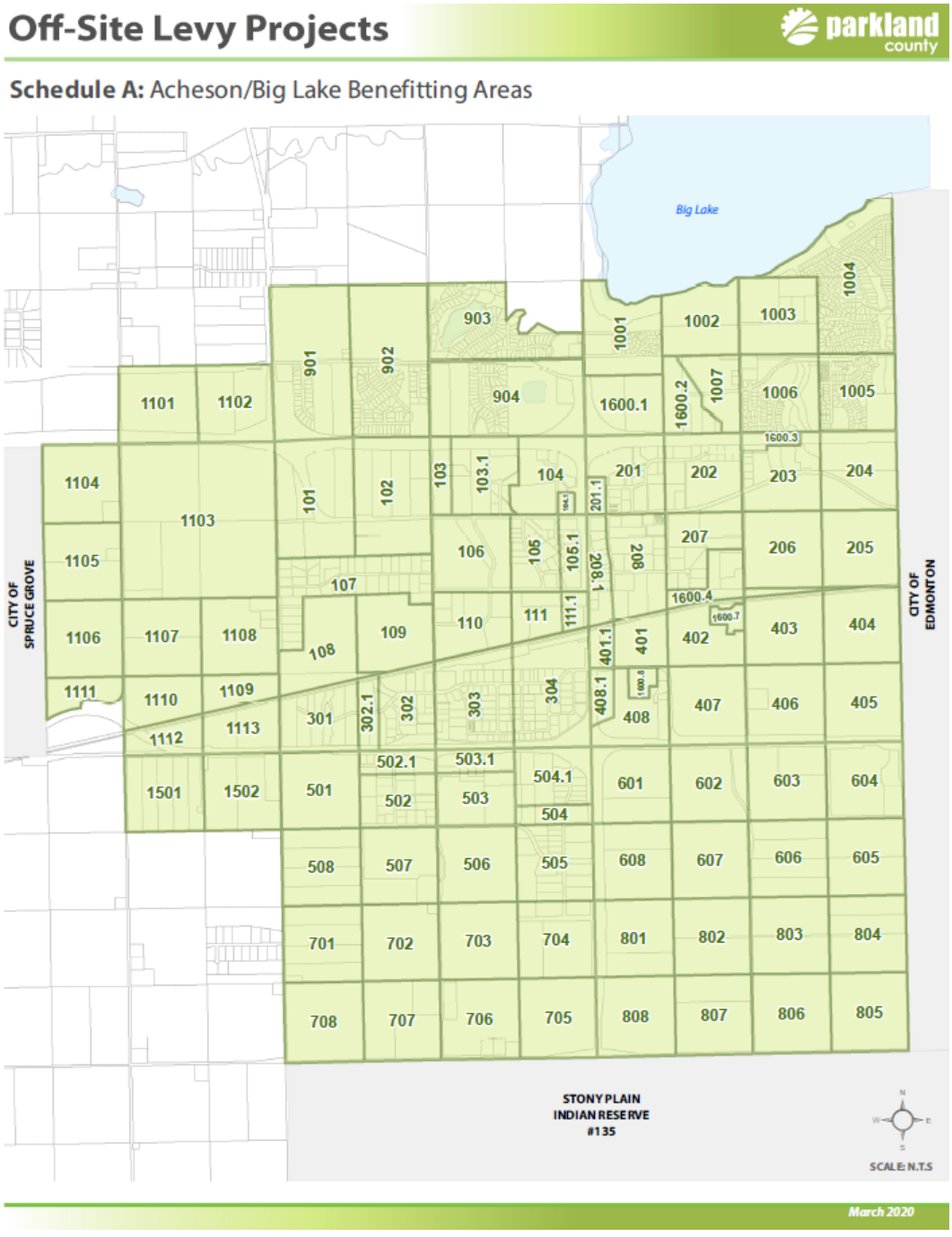
* The levy amounts represent the rate per hectare.

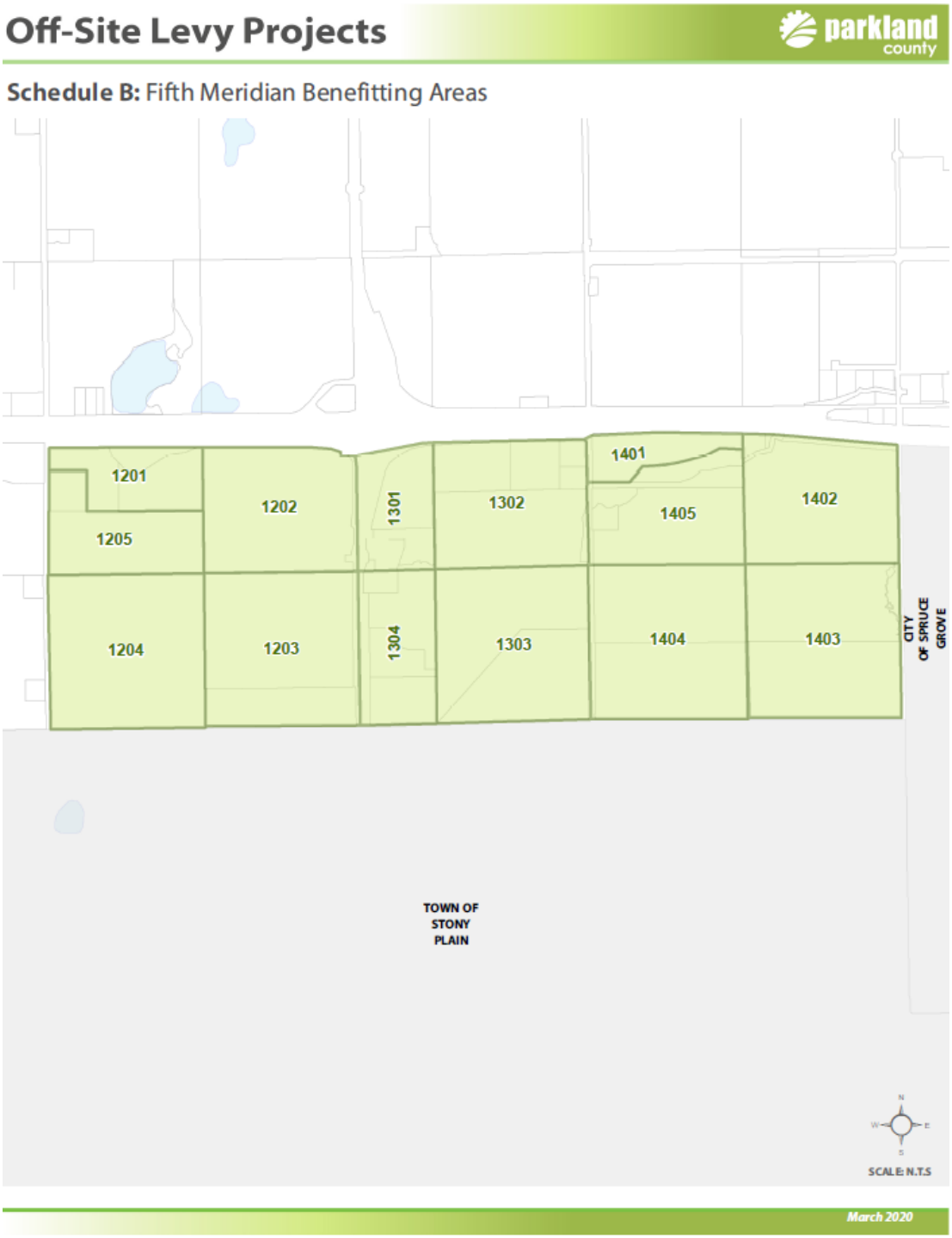
APPENDIX A: OFFSITE LEVY AREAS AND STAGING

A1. Offsite Levy Areas

The County is parsed into 123 offsite levy areas, as shown in the maps below. The offsite levy areas take into consideration existing/planned infrastructure basins (i.e., transportation, water, sanitary, and stormwater basins) as well as natural and man-made barriers (e.g., rivers, highways, railways, 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 **4023 net hectares.** In calculating net development area, only those lands remaining to be developed 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 road right of way (highway/arterial/collector).

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.)
101.0	Acheson Zone 1 (W1/2 of 8-53-26)	Commercial / Industrial	16.08	-	16.08	-		16.08
102.0	Acheson Zone 1 (E1/2 of 8-53-26)	Commercial / Industrial	54.86	-	54.86	-	0.70	54.16
103.0	Acheson Zone 1 (NW9-53-26)	Commercial / Industrial	8.11	-	8.11	-	0.10	8.01
103.1	Acheson Zone 1 (NW9-53-26)	Commercial / Industrial	22.04	-	22.04	-	0.20	21.84
104.0	Acheson Zone 1 (NE9-53-26)	Commercial / Industrial	-	-	-	-	-	-
104.1	Acheson Zone 1 (NE9-53-26)	Commercial / Industrial	4.05	-	4.05	-	-	4.05
105.0	Acheson Zone 1 (SE9-53-26)	Commercial / Industrial	12.70	-	12.70	-	0.12	12.58
105.1	Acheson Zone 1 (SE9-53-26)	Commercial / Industrial	2.67	-	2.67	-	0.12	2.55
106.0	Acheson Zone 1 (SW9-53-26)	Commercial / Industrial	-	-	-	-	-	-
107.0	Acheson Zone 1 Osborne Acres et al	Residential	68.59	-	68.59	-	-	68.59
108.0	Acheson Zone 1 (W1/2 of 5-53-26) - North of Railway	Commercial / Industrial	65.08	29.15	35.93	-	-	35.93
109.0	Acheson Zone 1 (NE5-53-26)	Commercial / Industrial	59.41	22.89	36.52	-	-	36.52
110.0	Acheson Zone 1 (SW4-53-26)	Commercial / Industrial	-	-	-	-	-	-
111.0	Acheson Zone 1 (SE4-53-26)	Commercial / Industrial	15.65	-	15.65	-	-	15.65
111.1	Acheson Zone 1 (SE4-53-26)	Commercial / Industrial	8.51	-	8.51	-	0.55	7.97
201.0	Acheson Zone 2 (NW10-53-26)	Commercial / Industrial	-	-	-	-	-	-
201.1	Acheson Zone 2 (NW10-53-26)	Commercial / Industrial	-	-	-	-	-	-
202.0	Acheson Zone 2 (NE10-53-26)	Commercial / Industrial	-	-	-	-	-	-
203.0	Acheson Zone 2 (Pt. NW11-53-26)	Commercial / Industrial	51.12	-	51.12	-	0.56	50.56
204.0	Acheson Zone 2 (NE11-53-26)	Commercial / Industrial	52.89	-	52.89	-	0.56	52.33
205.0	Acheson Zone 2 (SE11-53-26)	Commercial / Industrial	64.00	1.20	62.80	-	-	62.80
206.0	Acheson Zone 2 (SW11-53-26)	Commercial / Industrial	64.60	-	64.60	-	-	64.60
207.0	Acheson Zone 2 (Pt. SE10-53-26)	Commercial / Industrial	23.02	-	23.02	-	-	23.02
208.0	Acheson Zone 2 (SW10-53-26)	Commercial / Industrial	4.00	-	4.00	-	-	4.00
208.1	Acheson Zone 2 (SW10-53-26)	Commercial / Industrial	7.30	-	7.30	-	1.99	5.31
301.0	Acheson Zone 3 (SW5-53-26) - South of Railway	Commercial / Industrial	8.20	-	8.20	-	2.06	6.14
302.0	Acheson Zone 3 (SE5-53-26)	Commercial / Industrial	-	-	-	-	-	-
302.1	Acheson Zone 3 (SE5-53-26)	Commercial / Industrial	-	-	-	-	-	-
303.0	Acheson Zone 3 (SW4-53-26)	Commercial / Industrial	-	-	-	-	-	-
304.0	Acheson Zone 3 (SE4-53-26)	Commercial / Industrial	-	-	-	-	-	-
401.0	Acheson Zone 4 (NW3-53-26) - South of Railway	Commercial / Industrial	-	-	-	-	-	-
401.1	Acheson Zone 4 (NW3-53-26) - South of Railway	Commercial / Industrial	-	-	-	-	-	-
402.0	Acheson Zone 4 (NE3-53-26) - South of Railway	Commercial / Industrial	41.64	-	41.64	-	1.61	40.03
403.0	Acheson Zone 4 (NW2-53-26) - South of Railway	Commercial / Industrial	59.54	-	59.54	-	3.22	56.32
404.0	Acheson Zone 4 (NE2-53-26) - South of Railway	Commercial / Industrial	60.27	-	60.27	-	3.22	57.05
405.0	Acheson Zone 4 (SE2-53-26)	Commercial / Industrial	61.70	-	61.70	-	24.28	37.42
406.0	Acheson Zone 4 (SW2-53-26)	Commercial / Industrial	59.26	0.50	58.76	-	-	58.76
407.0	Acheson Zone 4 (SE3-53-26)	Commercial / Industrial	56.89	-	56.89	-	1.61	55.28
408.0	Acheson Zone 4 (SW3-53-26)	Commercial / Industrial	30.13	-	30.13	-	16.20	13.93
408.1	Acheson Zone 4 (SW3-53-26)	Commercial / Industrial	-	-	-	-	-	-
501.0	Acheson Zone 5 (NW32-52-26)	Commercial / Industrial	63.26	-	63.26	-	16.20	47.06
502.0	Acheson Zone 5 (NE32-52-26)	Commercial / Industrial	4.04	-	4.04	-	-	4.04
502.1	Acheson Zone 5 (NE32-52-26)	Commercial / Industrial	4.05	-	4.05	-	-	4.05
503.0	Acheson Zone 5 (NW33-52-26)	Commercial / Industrial	34.17	-	34.17	-	-	34.17
503.1	Acheson Zone 5 (NW33-52-26)	Commercial / Industrial	-	-	-	-	-	-
504.0	Acheson Zone 5 (NE33-52-26)	Commercial / Industrial	18.65	-	18.65	-	-	18.65
504.1	Acheson Zone 5 (NE33-52-26)	Commercial / Industrial	33.42	-	33.42	-	-	33.42
505.0	Acheson Zone 5 (SE33-52-26)	Commercial / Industrial	64.14	-	64.14	-	9.75	54.39
506.0	Acheson Zone 5 (SW33-52-26)	Commercial / Industrial	61.97	-	61.97	-	-	61.97
507.0	Acheson Zone 5 (SE32-52-26)	Commercial / Industrial	-	-	-	-	-	-
508.0	Acheson Zone 5 (SW32-52-26)	Commercial / Industrial	64.70	-	64.70	-	-	64.70

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.)
601.0	Acheson Zone 6 (NW34-52-26)	Commercial / Industrial	53.54	-	53.54	-	-	53.54
602.0	Acheson Zone 6 (NE34-52-26)	Commercial / Industrial	60.23	-	60.23	-	3.22	57.01
603.0	Acheson Zone 6 (NW35-52-26)	Commercial / Industrial	62.30	3.70	58.60	-	3.22	55.38
604.0	Acheson Zone 6 (NE35-52-26)	Commercial / Industrial	53.11	-	53.11	-	16.20	36.91
605.0	Acheson Zone 6 (SE35-52-26)	Commercial / Industrial	64.75	-	64.75	-	-	64.75
606.0	Acheson Zone 6 (SW35-52-26)	Commercial / Industrial	63.88	-	63.88	-	-	63.88
607.0	Acheson Zone 6 (SE34-52-26)	Commercial / Industrial	64.72	-	64.72	-	-	64.72
608.0	Acheson Zone 6 (SW34-52-26)	Commercial / Industrial	57.14	5.03	52.11	-	3.22	48.89
701.0	Acheson Zone 7 (NW29-52-26)	Commercial / Industrial	64.75	12.88	51.87	-	3.22	48.65
702.0	Acheson Zone 7 (NE29-52-26)	Commercial / Industrial	64.34	-	64.34	-	3.22	61.12
703.0	Acheson Zone 7 (NW28-52-26)	Commercial / Industrial	64.68	-	64.68	-	3.22	61.46
704.0	Acheson Zone 7 (NE28-52-26)	Commercial / Industrial	61.73	-	61.73	-	3.71	58.02
705.0	Acheson Zone 7 (SE28-52-26)	Commercial / Industrial	61.46	-	61.46	-	61.46	-
706.0	Acheson Zone 7 (SW28-52-26)	Commercial / Industrial	64.01	-	64.01	-	17.79	46.22
707.0	Acheson Zone 7 (SE29-52-26)	Commercial / Industrial	64.23	-	64.23	-	2.42	61.81
708.0	Acheson Zone 7 (SW29-52-26)	Commercial / Industrial	64.79	-	64.79	-	2.42	62.37
801.0	Acheson Zone 8 (NW27-52-26)	Commercial / Industrial	56.85	-	56.85	-	3.22	53.63
802.0	Acheson Zone 8 (NE27-52-26)	Commercial / Industrial	63.95	-	63.95	-	3.22	60.73
803.0	Acheson Zone 8 (NW26-52-26)	Commercial / Industrial	64.75	-	64.75	-	3.22	61.53
804.0	Acheson Zone 8 (NE26-52-26)	Commercial / Industrial	64.90	-	64.90	-	3.22	61.68
805.0	Acheson Zone 8 (SE26-52-26)	Commercial / Industrial	64.02	-	64.02	-	32.38	31.64
806.0	Acheson Zone 8 (SW26-52-26)	Commercial / Industrial	64.35	-	64.35	-	24.28	40.07
807.0	Acheson Zone 8 (SE27-52-26)	Commercial / Industrial	63.62	-	63.62	-	24.28	39.34
808.0	Acheson Zone 8 (SW27-52-26)	Commercial / Industrial	59.82	-	59.82	-	59.82	-
901.0	Big Lake West (W1/2 of 17-53-26)	Residential	93.56	18.40	75.16	7.52	-	67.64
902.0	Big Lake West (E1/2 of 17-53-26)	Residential	69.47	52.19	17.28	1.73	-	15.55
903.0	Big Lake West (N1/2 of 16-53-26)	Residential	8.41	-	8.41	0.84	-	7.57
904.0	Big Lake West (S1/2 of 16-53-26)	Residential	78.77	-	78.77	7.88	-	70.89
1001.0	Big Lake East (Pt. W1/2 of 15-53-26)	Residential	36.60	11.09	25.51	2.55	-	22.96
1002.0	Big Lake East (NE15-53-26)	Residential	55.69	19.19	36.50	3.65	-	32.85
1003.0	Big Lake East (NW14-53-26)	Residential	62.17	4.71	57.46	5.75	-	51.71
1004.0	Big Lake East (S1/2 of 23 & NE14-53-26)	Residential	-	-	-	-	-	-
1005.0	Big Lake East (SE14-53-26)	Residential	22.50	4.40	18.10	1.81	-	16.29
1006.0	Big Lake East (SW16-53-26)	Residential	24.42	0.58	23.84	2.38	-	21.46
1007.0	Big Lake East (Pt. SE15-53-26)	Residential	30.76	3.51	27.25	2.73	-	24.53
1101.0	Acheson West (SW18-53-26)	Commercial / Industrial	48.16	-	48.16	-	-	48.16
1102.0	Acheson West (SE18-53-26)	Commercial / Industrial	44.17	-	44.17	-	-	44.17
1103.0	Acheson West (Sec.7-53-26)	Commercial / Industrial	31.83	-	31.83	-	-	31.83
1104.0	Acheson West (NE12-53-27)	Commercial / Industrial	64.34	2.70	61.64	-	-	61.64
1105.0	Acheson West (SE12-53-27)	Commercial / Industrial	64.33	-	64.33	-	-	64.33
1106.0	Acheson West (NE1-53-27)	Commercial / Industrial	64.34	14.07	50.27	-	-	50.27
1107.0	Acheson West (NW6-53-26)	Commercial / Industrial	64.35	-	64.35	-	-	64.35
1108.0	Acheson West (NE6-53-26)	Commercial / Industrial	64.35	-	64.35	-	-	64.35
1109.0	Acheson West (SE6-53-26) - North of Railway	Commercial / Industrial	25.80	-	25.80	-	-	25.80
1110.0	Acheson West (SW6-53-26) - North of Railway	Commercial / Industrial	39.25	-	39.25	-	-	39.25
1111.0	Acheson West (SE1-53-27) - North of Railway	Commercial / Industrial	41.27	9.37	31.90	-	-	31.90
1112.0	Acheson West (SW6-53-26) - South of Railway	Commercial / Industrial	11.04	-	11.04	-	-	11.04
1113.0	Acheson West (SE6-53-26) - South of Railway	Commercial / Industrial	31.97	-	31.97	-	-	31.97

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.)
1201.0	Fifth Meridian (NW12-53-1) - North of Watercourse	Commercial / Industrial	20.74	3.92	16.82	-	-	16.82
1202.0	Fifth Meridian (NE12-53-1)	Commercial / Industrial	50.51	6.00	44.51	-	-	44.51
1203.0	Fifth Meridian (SE12-53-1)	Commercial / Industrial	62.52	1.60	60.92	-	-	60.92
1204.0	Fifth Meridian (SW12-53-1)	Residential	64.75	6.70	58.05	5.81	-	52.25
1205.0	Fifth Meridian (NW12-53-1) - South of Watercourse	Residential	30.45	9.44	21.01	2.10	-	18.91
1301.0	Fifth Meridian (NW12-53-28)	Commercial / Industrial	17.60	-	17.60	-	-	17.60
1302.0	Fifth Meridian (NE12-53-28)	Commercial / Industrial	51.75	3.62	48.13	-	-	48.13
1303.0	Fifth Meridian (SE12-53-28)	Commercial / Industrial	64.21	2.75	61.46	-	-	61.46
1304.0	Fifth Meridian (SW12-53-28)	Commercial / Industrial	27.66	-	27.66	-	-	27.66
1401.0	Fifth Meridian (NW7-53-27) - North of watercourse	Commercial / Industrial	14.44	-	14.44	-	-	14.44
1402.0	Fifth Meridian (NE7-53-27)	Residential	49.19	7.22	41.97	4.20	-	37.77
1403.0	Fifth Meridian (SE7-53-27)	Residential	64.75	24.28	40.47	4.05	-	36.42
1404.0	Fifth Meridian (SW7-53-27)	Residential	64.36	0.60	63.76	6.38	-	57.38
1405.0	Fifth Meridian (NW7-53-27) - South of watercourse	Residential	34.36	-	34.36	-	-	34.36
1501.0	Acheson West (NW31-52-26)	Commercial / Industrial	61.92	4.00	57.92	-	-	57.92
1502.0	Acheson West (NE31-52-26)	Commercial / Industrial	62.32	-	62.32	-	16.20	46.12
1600.1	Big Lake East (Lot 1 & 2, Plan 4149TR in SW15-53-26)	Residential	39.82	-	39.82	3.98	2.31	33.53
1600.2	Big Lake East (Pt. SE15-53-26)	Residential	30.45	-	30.45	3.05	0.62	26.79
1600.3	Acheson Zone 2 (Pt. NW11-53-26)	Commercial / Industrial	2.41	-	2.41	-	-	2.41
1600.4	Acheson Zone 2 (Pt. SE10-53-26 and Pt. NE3-53-26 N of R	Commercial / Industrial	25.93	-	25.93	-	-	25.93
1600.5	Acheson Zone 2 (Pt. NW2-53-26 North of Rail)	Commercial / Industrial	5.06	-	5.06	-	-	5.06
1600.6	Acheson Zone 2 (Pt. NE2-53-26 North of Rail)	Commercial / Industrial	0.76	-	0.76	-	-	0.76
1600.7	Acheson Zone 4 (Plan 9624108 in NE3-53-26)	Commercial / Industrial	8.10	-	8.10	-	-	8.10
1600.8	Acheson Zone 4 (Lot 2, Plan 0722672 in SW3-53-26)	Commercial / Industrial	-	-	-	-	-	-
		Total	**4,754.24**	**285.69**	**4,468.55**	**66.38**	**379.13**	**4,023.04**

Summary of Offsite Levy Net Development Area

Description	ha.
Gross Development Area	4,754.24
Less Environment Reserve	285.69
Less Municipal Reserve	66.38
Less ROW Allowance	379.13
Net Development Area	4,023.04

*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 County. 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 (undevelopable land) contained within the development area.
    - Less: A 10% allowance for Municipal Reserves (As applicable per County Policy C-PD15)
    - Less: Highway/Arterial/Collector 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 4,023 net hectares of development area available across all offsite levy development areas, approximately **225 hectares (5.6%)** have been developed to date, and County Planners estimate that approximately **1,960 ha. (48.7%)** will develop during the next 25-years (2020 – 2044, the rate planning period) as shown in the tables below.

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

Description	Ha.	
Developed Since Model Created	225.05	5.6%
Developed In Next 25 Years	1,960.29	48.7%
Developed Beyond 25 Years	1,837.70	45.7%
Net Development Area	4,023.04	

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
101.0	16.080	-	-	-	-	-	-	-	-	-	-	-	16.08		-	-	-	-	-	-	-	-	-	-	-	-
102.0	54.160	-	-	-	-	14.25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39.91	-
103.0	8.010	-	-	-	4.00	-	-	-	-	-	4.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
103.1	21.840	-	-	4.09	-	-	13.89	-	-	-	3.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
104.1	4.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-		4.05	-	-	-	-	-	-	-	-	-
105.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
105.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
106.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
107.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
108.0	35.930	-	-	-	-	-	-		35.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
109.0	29.640	-		29.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
110.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
111.0	10.400	-	-	-	-	-	-	-	-	1.14	-	-	-	-	-	-	-	-	9.26	-	-	-	-	-	-	-
111.1	7.965	-	-	-	-	-	-	-	-	2.68	-	-	-	-	-	-	-	-	5.29	-	-	-	-	-	-	-
201.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
201.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
202.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
203.0	28.660	24.66	-	-	-	-	-	-	-	-	-	-	-	-	4.00	-	-	-	-	-	-	-	-	-	-	-
204.0	52.330	-	-	-	22.07	-	-	-	30.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
205.0	48.100	-	-	48.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
206.0	30.000	-	-	-	-	-	-	-	-	-	-	-	30.00	-	-	-	-	-	-	-	-	-	-	-	-	-
207.0	4.790	-	-	-	-	4.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
208.0	4.000	-	-	-	-	-	-	-	-	-	-	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
208.1	5.310	-	-	-	-	-	-	-	-	-	-	5.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-
301.0	6.140	-	-	-	-	6.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
302.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
302.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
303.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
304.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
401.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
401.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
402.0	40.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.03	-	-	-	-	-
403.0	56.320	-	-	-	56.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
404.0	57.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57.05	-	-	-	-
405.0	37.420	-	-	-	-	-	-	-	-	-	-	37.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-
406.0	58.760	-	-	-	-	-	-	-	29.38	-	-	-	-	-	-	-	-	-	29.38	-	-	-	-	-	-	-
407.0	55.280	-	-	-	-	27.64	-	-	-	-	-	-	-	-	-	-	27.64	-	-	-	-	-	-	-	-	-
408.0	13.930	-	-	-	13.12	-	-	-	-	-	-	-	0.81	-	-	-	-	-	-	-	-	-	-	-	-	-
408.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
501.0	47.060	-	-	47.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
502.0	4.040	-	-	-	-	-	4.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
502.1	4.050	-	-	-	-	-	4.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
504.0	5.063	-	-	-	-	-	-	-	-	5.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
504.1	25.100	15.10		-	-	-	-	-	-	10.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
505.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
506.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
507.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
508.0	64.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.35	-	-	-	-	-	-	-	-	-	32.35
601.0	53.540	-	-	26.77	-	-	-	-	26.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
602.0	57.010	-	-	-	-	-	57.01	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
603.0	55.380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55.38	-	-
604.0	5.890	-	-	-	-	-	-	-	-	-	5.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
605.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
606.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
607.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
608.0	48.890	-	-	33.96	-	-	14.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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
701.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
702.0	61.120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61.12	-	-	-	-	-	-
703.0	57.410	1.23	-	56.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
704.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
705.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
706.0	46.220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46.22	-	-	-	-	-	-	-	-	-
707.0	61.810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	61.81	-	-	-
708.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
801.0	53.630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53.63	-	-	-	-	-	-	-	-
802.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
803.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
804.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
805.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
806.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
807.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
808.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
901.0	67.640	-	-	-	-	-	28.62	-	-	-	-	-	-	27.45	-	-	-	-	-	-	-	11.57	-	-	-	-
902.0	15.550	-	-	-	-	-	-	-	-	-	5.85	-	-	-	-	-	-	-	9.70	-	-	-	-	-	-	-
903.0	7.569	-	-	-	5.75	-	-	-	1.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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1,004.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,005.0	12.520	-	-	-	-	-	-	-	-	-	-	-	10.73	-	-	-	-	-	-	-	-	-	-	-	1.79	-
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1,102.0	44.170	-	-	-	-	-	-	-	-	-	-	-	-	44.17	-	-	-	-	-	-	-	-	-	-	-	-
1,103.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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1,201.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,202.0	44.510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.51	-	-	-	-	-	-	-	-	-	-
1,203.0	54.830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54.83	-	-	-
1,204.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,205.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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1,303.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,304.0	27.660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.66	-	-	-	-	-	-	-
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1,404.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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1,501.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,502.0	23.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.06
1,600.1	33.528	-	-	-	-	-	-	-	-	-	-	14.70	-	-	-	-	-	-	-	18.83	-	-	-	-	-	-
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1,600.3	2.410	-	-	-	-	2.41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,600.4	25.930	-	-	-		-	-	-	-	-	-	-	-	25.93		-	-	-	-	-	-	-	-	-		-
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1,600.6	0.760	-	-	0.76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,600.7	8.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.10	-	-	-	-	-
1,600.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,960.28	43.86	-	254.17	101.26	55.23	122.54	31.43	124.16	18.88	19.61	75.56	87.97	97.55	4.00	95.37	77.91	53.63	117.61	79.95	61.98	68.62	168.35	55.38	41.70	103.57

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 **$137.18 million** as outlined in the table below. Actual costs, infrastructure staging, and cost estimates were provided by County Engineering staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

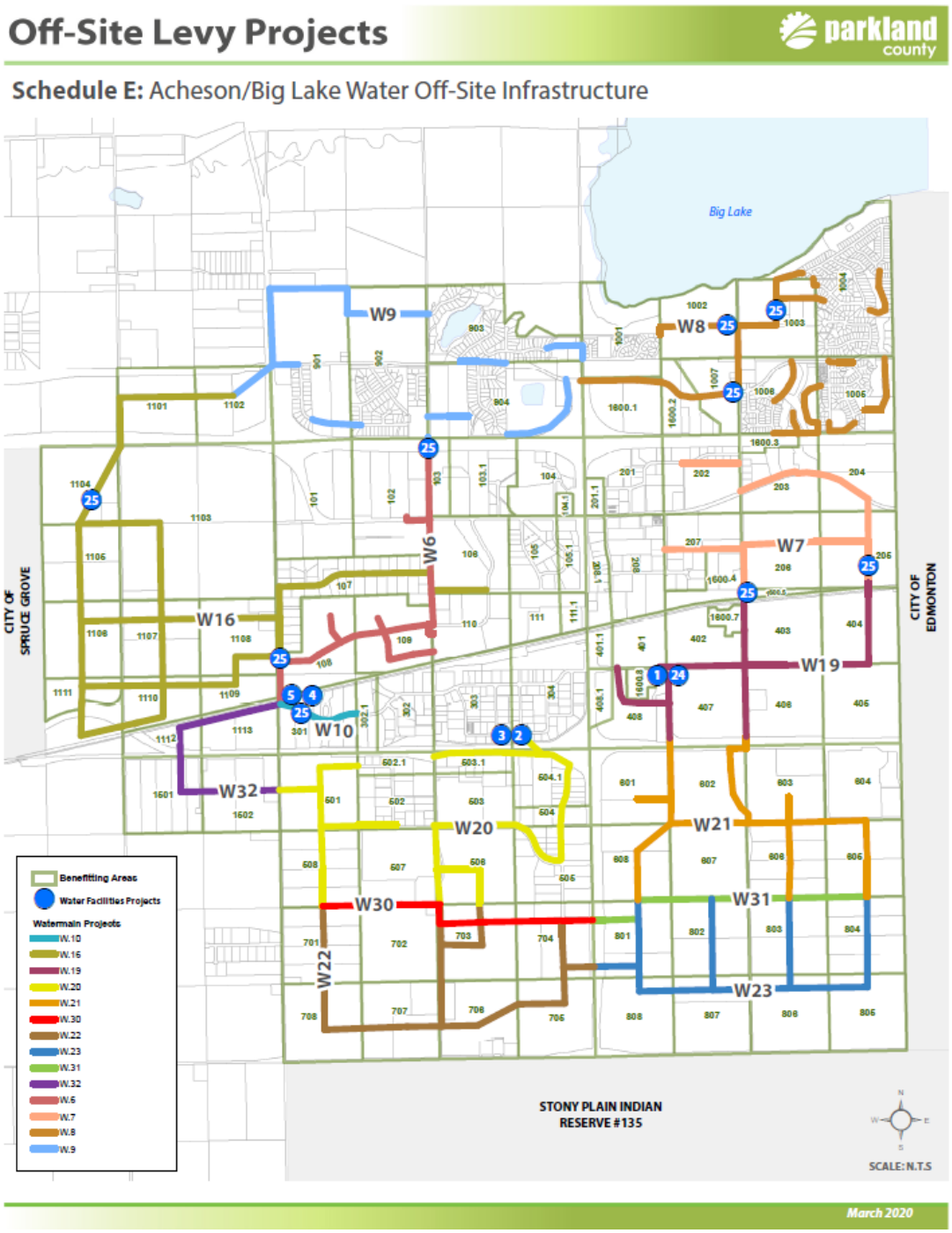
Summary of Water Offsite Infrastructure

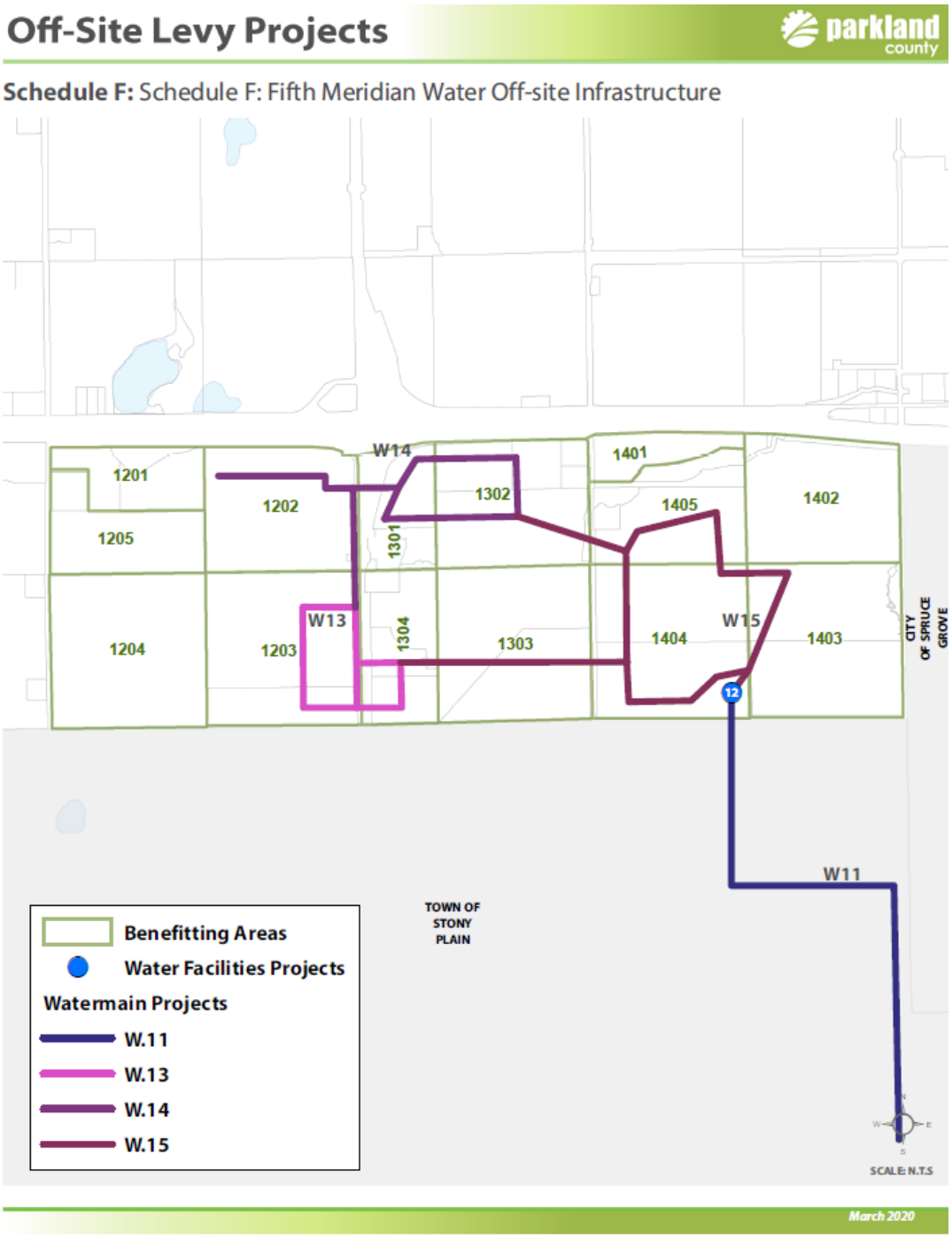
Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Zone 4 Reservoir Expansion (9000m3)	$ -	$ -	$ 6,531,250	$ 6,531,250
2	Zone 3 Pump Upgrade	$ -	$ -	$ -	$ -
3	Zone 3 Pump Upgrade	$ -	$ -	$ -	$ -
4	Zone 3 New West Acheson Park Reservoir 9000m3 & Pumphouse	$ -	$ -	$ 9,630,000	$ 9,630,000
5	Zone 3 West Acheson Park Reservoir Expansion 15,000m3	$ -	$ -	$ 12,000,000	$ 12,000,000
6	Zone 1 Water Mains (Near future, long term, and ultimate)	$ -	$ -	$ 3,246,986	$ 3,246,986
7	Zone 2 Water Mains (Near future, long term, and ultimate)	$ 1,579,772	$ -	$ 2,048,141	$ 3,627,913
8	Big Lakes East Water Mains	$ 96,587	$ -	$ 7,514,370	$ 7,610,957
9	Big Lakes West Water Mains	$ -	$ -	$ 7,600,163	$ 7,600,163
10	Zone 3 Water Mains	$ -	$ -	$ 102,128	$ 102,128
11	5th Meridian - Supply Line From Regional Line	$ -	$ -	$ 3,240,100	$ 3,240,100
12	5th Meridian - Water Reservoir	$ -	$ -	$ 7,800,000	$ 7,800,000
13	5th Meridian (Area A) - Water Mains	$ -	$ -	$ 2,496,100	$ 2,496,100
14	5th Meridian (Area B) - Water Mains	$ -	$ -	$ 4,069,000	$ 4,069,000
15	5th Meridian (Area C) - Water Mains	$ -	$ -	$ 6,429,900	$ 6,429,900
16	Acheson Area 11 Water Mains (Near future, long term, and ultimate)	$ -	$ -	$ 10,244,036	$ 10,244,036
17	Old Bylaw #52-2003 (A5 - Hunter's Watermain)	$ 272,702	$ 74,981	$ -	$ 347,683
18	Acheson Big Lake Water Servicing Study Update - 2020	$ -	$ -	$ 50,875	$ 50,875
19	Zone 4 Water Mains	$ -	$ -	$ 4,637,453	$ 4,637,453
20	Zone 5 Water Mains	$ 6,310,250	$ -	$ 2,476,980	$ 8,787,230
21	Zone 6 Water Mains	$ -	$ -	$ 5,358,893	$ 5,358,893
22	Zone 7 Water Mains	$ 288,112	$ -	$ 4,052,396	$ 4,340,508
23	Zone 8 Water Mains	$ -	$ -	$ 3,986,685	$ 3,986,685
24	Zone 4 Reservoir Expansion (Adjacent to Zone 4 Reservoir) 17,270m3 & Pumphouse	$ -	$ -	$ 16,635,000	$ 16,635,000
25	New PRVs (x9)	$ -	$ -	$ 1,546,875	$ 1,546,875
26	Acheson Big Lake Water Servicing Study Update - 2025	$ -	$ -	$ 50,875	$ 50,875
27	Acheson Big Lake Water Servicing Study Update - 2030	$ -	$ -	$ 50,875	$ 50,875
28	Acheson Big Lake Water Servicing Study Update - 2035	$ -	$ -	$ 50,875	$ 50,875
29	Acheson Big Lake Water Servicing Study Update - 2040	$ -	$ -	$ 50,875	$ 50,875
30	Zone 5 & 7 East-West Distribution Main	$ 1,414,944	$ -	$ 1,197,156	$ 2,612,101
31	Zone 6 & 8 East-West Distribution Main	$ 229,348	$ -	$ 2,069,213	$ 2,298,560
32	West Acheson South Water Distribution Mains (1501, 1502, 1112, 1113)	$ -	$ -	$ 1,742,749	$ 1,742,749
		$ 10,191,715	**$ 74,981**	**$ 126,909,947**	**$ 137,176,643**

*Costs are based on 2019 estimates and include engineering costs and contingencies.

A map showing the location of the water offsite infrastructure is shown below.

Location of Water Offsite Infrastructure





B2. Water Offsite Infrastructure Grants & Contributions to Date

The *Municipal Government Act* enables the County 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). Parkland County has/will receive **$2.89 million** in special grants and contributions for water offsite levy infrastructure as shown in the table below (note, if the County 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 cost is **$134.28 million**.

Special Grants and Contributions for Water Offsite Infrastructure

Item	Project Description	Total Project Estimated Cost	Special Provincial Grants	Developer Agreement Contributions	Other Contributions	Reduced Project Estimated Cost
1	Zone 4 Reservoir Expansion (9000m3)	$ 6,531,250	$ -	$ -	$ -	$ 6,531,250
2	Zone 3 Pump Upgrade	$ -	$ -	$ -	$ -	$ -
3	Zone 3 Pump Upgrade	$ -	$ -	$ -	$ -	$ -
4	Zone 3 New West Acheson Park Reservoir 9000m3 & Pumphouse	$ 9,630,000	$ -	$ 34,123	$ -	$ 9,595,877
5	Zone 3 West Acheson Park Reservoir Expansion 15,000m3	$ 12,000,000	$ -	$ -	$ -	$ 12,000,000
6	Zone 1 Water Mains (Near future, long term, and ultimate)	$ 3,246,986	$ -	$ 2,654	$ -	$ 3,244,332
7	Zone 2 Water Mains (Near future, long term, and ultimate)	$ 3,627,913	$ -	$ 785,460	$ -	$ 2,842,453
8	Big Lakes East Water Mains	$ 7,610,957	$ -	$ -	$ -	$ 7,610,957
9	Big Lakes West Water Mains	$ 7,600,163	$ -	$ -	$ -	$ 7,600,163
10	Zone 3 Water Mains	$ 102,128	$ -	$ -	$ -	$ 102,128
11	5th Meridian - Supply Line From Regional Line	$ 3,240,100	$ -	$ -	$ -	$ 3,240,100
12	5th Meridian - Water Reservoir	$ 7,800,000	$ -	$ -	$ -	$ 7,800,000
13	5th Meridian (Area A) - Water Mains	$ 2,496,100	$ -	$ -	$ -	$ 2,496,100
14	5th Meridian (Area B) - Water Mains	$ 4,069,000	$ -	$ -	$ -	$ 4,069,000
15	5th Meridian (Area C) - Water Mains	$ 6,429,900	$ -	$ -	$ -	$ 6,429,900
16	Acheson Area 11 Water Mains (Near future, long term, and ultimate)	$ 10,244,036	$ -	$ -	$ -	$ 10,244,036
17	Old Bylaw #52-2003 (A5 - Hunter's Watermain)	$ 347,683	$ -	$ 21,811	$ -	$ 325,872
18	Acheson Big Lake Water Servicing Study Update - 2020	$ 50,875	$ -	$ -	$ -	$ 50,875
19	Zone 4 Water Mains	$ 4,637,453	$ -	$ -	$ -	$ 4,637,453
20	Zone 5 Water Mains	$ 8,787,230	$ -	$ 2,049,130	$ -	$ 6,738,100
21	Zone 6 Water Mains	$ 5,358,893	$ -	$ -	$ -	$ 5,358,893
22	Zone 7 Water Mains	$ 4,340,508	$ -	$ -	$ -	$ 4,340,508
23	Zone 8 Water Mains	$ 3,986,685	$ -	$ -	$ -	$ 3,986,685
24	Zone 4 Reservoir Expansion (Adjacent to Zone 4 Reservoir) 17,270m3 & Pumphouse	$ 16,635,000	$ -	$ -	$ -	$ 16,635,000
25	New PRVs (x9)	$ 1,546,875	$ -	$ -	$ -	$ 1,546,875
26	Acheson Big Lake Water Servicing Study Update - 2025	$ 50,875	$ -	$ -	$ -	$ 50,875
27	Acheson Big Lake Water Servicing Study Update - 2030	$ 50,875	$ -	$ -	$ -	$ 50,875
28	Acheson Big Lake Water Servicing Study Update - 2035	$ 50,875	$ -	$ -	$ -	$ 50,875
29	Acheson Big Lake Water Servicing Study Update - 2040	$ 50,875	$ -	$ -	$ -	$ 50,875
30	Zone 5 & 7 East-West Distribution Main	$ 2,612,101	$ -	$ -	$ -	$ 2,612,101
31	Zone 6 & 8 East-West Distribution Main	$ 2,298,560	$ -	$ -	$ -	$ 2,298,560
32	West Acheson South Water Distribution Mains (1501, 1502, 1112, 1113)	$ 1,742,749	$ -	$ -	$ -	$ 1,742,749
		$ 137,176,643	**$ -**	**$ 2,893,178**	**$ -**	**$ 134,283,466**

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 Section B4). The County 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 County's annual rate/bylaw updates.

Water Infrastructure Staging

Item	Project Description	Year of Construction
1	Zone 4 Reservoir Expansion (9000m3)	2020
2	Zone 3 Pump Upgrade	
3	Zone 3 Pump Upgrade	
4	Zone 3 New West Acheson Park Reservoir 9000m3 & Pumphouse	2038
5	Zone 3 West Acheson Park Reservoir Expansion 15,000m3	2044
6	Zone 1 Water Mains (Near future, long term, and ultimate)	2020
7	Zone 2 Water Mains (Near future, long term, and ultimate)	2020
8	Big Lakes East Water Mains	2025
9	Big Lakes West Water Mains	2022
10	Zone 3 Water Mains	2023
11	5th Meridian - Supply Line From Regional Line	2033
12	5th Meridian - Water Reservoir	2033
13	5th Meridian (Area A) - Water Mains	2036
14	5th Meridian (Area B) - Water Mains	2033
15	5th Meridian (Area C) - Water Mains	2033
16	Acheson Area 11 Water Mains (Near future, long term, and ultimate)	2044
17	Old Bylaw #52-2003 (A5 - Hunter's Watermain)	2014
18	Acheson Big Lake Water Servicing Study Update - 2020	2020
19	Zone 4 Water Mains	2022
20	Zone 5 Water Mains	2032
21	Zone 6 Water Mains	2021
22	Zone 7 Water Mains	2019
23	Zone 8 Water Mains	2035
24	Zone 4 Reservoir Expansion (Adjacent to Zone 4 Reservoir) 17,270m3 & Pumphouse	2055
25	New PRVs (x9)	2032
26	Acheson Big Lake Water Servicing Study Update - 2025	2025
27	Acheson Big Lake Water Servicing Study Update - 2030	2030
28	Acheson Big Lake Water Servicing Study Update - 2035	2035
29	Acheson Big Lake Water Servicing Study Update - 2040	2040
30	Zone 5 & 7 East-West Distribution Main	2032
31	Zone 6 & 8 East-West Distribution Main	2020
32	West Acheson South Water Distribution Mains (1501, 1502, 1112, 1113)	2043

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

**Project costs were inflated by 2% per annum for the first 3 years, and 3% per annum thereafter to the year of construction.

***A blank year (if any) represents a project which has been combined with another project, costs have been removed from the model, or project has been completed.

B4. Water Offsite Infrastructure Benefiting Parties

The water offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by County staff. Four potential benefiting parties were identified including:

- Parkland County – a portion of the water infrastructure which is required to service existing residents/businesses.
- Other Stakeholders – other parties (such as neighboring municipalities) that benefit from the infrastructure.
- Parkland County Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- Parkland County Future Development (In Rates) – all growth-related infrastructure (i.e., levyable water infrastructure costs) during the 25-year rate planning period.

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

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	Zone 4 Reservoir Expansion (9000m3)	$ 6,531,250			0.0%	100.0%
2	Zone 3 Pump Upgrade	$ -			0.0%	100.0%
3	Zone 3 Pump Upgrade	$ -			0.0%	100.0%
4	Zone 3 New West Acheson Park Reservoir 9000m3 & Pumphouse	$ 9,595,877			72.0%	28.0%
5	Zone 3 West Acheson Park Reservoir Expansion 15,000m3	$ 12,000,000			96.0%	4.0%
6	Zone 1 Water Mains (Near future, long term, and ultimate)	$ 3,244,332			0.0%	100.0%
7	Zone 2 Water Mains (Near future, long term, and ultimate)	$ 2,842,453			0.0%	100.0%
8	Big Lakes East Water Mains	$ 7,610,957			20.0%	80.0%
9	Big Lakes West Water Mains	$ 7,600,163			8.0%	92.0%
10	Zone 3 Water Mains	$ 102,128			12.0%	88.0%
11	5th Meridian - Supply Line From Regional Line	$ 3,240,100			52.0%	48.0%
12	5th Meridian - Water Reservoir	$ 7,800,000			52.0%	48.0%
13	5th Meridian (Area A) - Water Mains	$ 2,496,100			64.0%	36.0%
14	5th Meridian (Area B) - Water Mains	$ 4,069,000			52.0%	48.0%
15	5th Meridian (Area C) - Water Mains	$ 6,429,900			52.0%	48.0%
16	Acheson Area 11 Water Mains (Near future, long term, and ultimate)	$ 10,244,036			96.0%	4.0%
17	Old Bylaw #52-2003 (A5 - Hunter's Watermain)	$ 325,872	6.6%		0.0%	93.4%
18	Acheson Big Lake Water Servicing Study Update - 2020	$ 50,875			0.0%	100.0%
19	Zone 4 Water Mains	$ 4,637,453			8.0%	92.0%
20	Zone 5 Water Mains	$ 6,738,100			48.0%	52.0%
21	Zone 6 Water Mains	$ 5,358,893			4.0%	96.0%
22	Zone 7 Water Mains	$ 4,340,508			0.0%	100.0%
23	Zone 8 Water Mains	$ 3,986,685			60.0%	40.0%
24	Zone 4 Reservoir Expansion (Adjacent to Zone 4 Reservoir) 17,270m3 & Pumphouse	$ 16,635,000			100.0%	0.0%
25	New PRVs (x9)	$ 1,546,875			48.0%	52.0%
26	Acheson Big Lake Water Servicing Study Update - 2025	$ 50,875			20.0%	80.0%
27	Acheson Big Lake Water Servicing Study Update - 2030	$ 50,875			40.0%	60.0%
28	Acheson Big Lake Water Servicing Study Update - 2035	$ 50,875			60.0%	40.0%
29	Acheson Big Lake Water Servicing Study Update - 2040	$ 50,875			80.0%	20.0%
30	Zone 5 & 7 East-West Distribution Main	$ 2,612,101			48.0%	52.0%
31	Zone 6 & 8 East-West Distribution Main	$ 2,298,560			0.0%	100.0%
32	West Acheson South Water Distribution Mains (1501, 1502, 1112, 1113)	$ 1,742,749			92.0%	8.0%
		$ 134,283,466				

**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. In future, as the 25-year review period moves further out these additional developer costs will gradually be included in future rate calculations.

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 **$64.51 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 County has collected **$2.83 million** in water offsite levies to date. This results in an adjusted offsite levy cost of approximately **$61.68 million**.

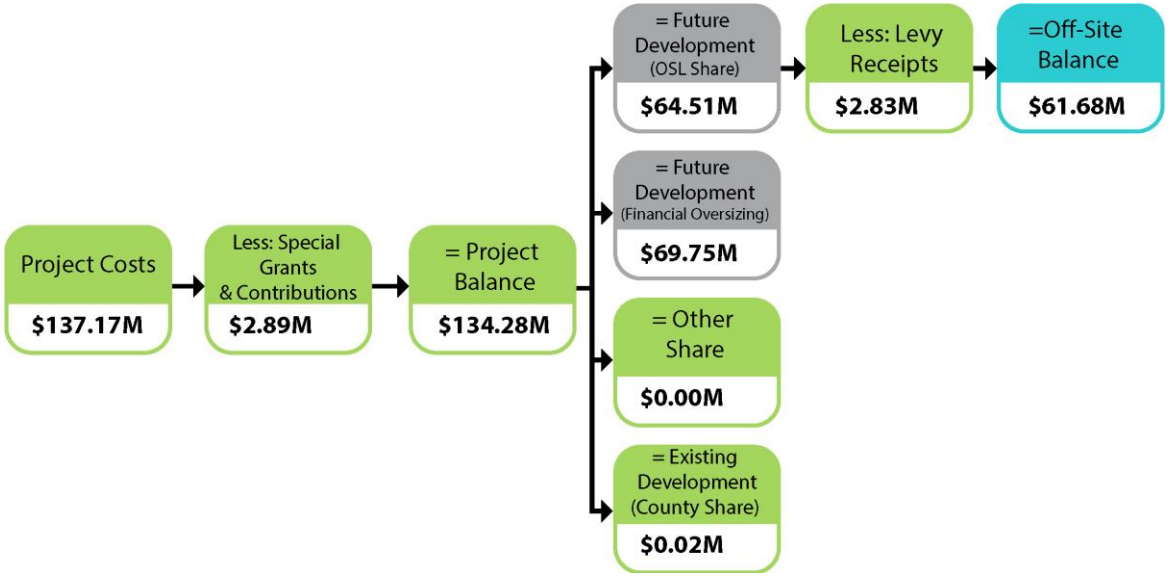
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected Under Old Bylaw #52-2003	Offsite Levy Funds Collected Starting Jan 1, 2013	Adjusted Developer (Levy) Cost
1	Zone 4 Reservoir Expansion (9000m3)	$ 6,531,250	$ -	$ 79,341	$ 6,451,909
2	Zone 3 Pump Upgrade	$ -	$ -	$ 405	$ (405)
3	Zone 3 Pump Upgrade	$ -	$ -	$ 405	$ (405)
4	Zone 3 New West Acheson Park Reservoir 9000m3 & Pumphouse	$ 2,686,846	$ 1,063,780.82	$ 18,474	$ 1,604,591
5	Zone 3 West Acheson Park Reservoir Expansion 15,000m3	$ 480,000	$ -	$ 279,361	$ 200,639
6	Zone 1 Water Mains (Near future, long term, and ultimate)	$ 3,244,332	$ 123,287.03	$ 98,793	$ 3,022,252
7	Zone 2 Water Mains (Near future, long term, and ultimate)	$ 2,842,453	$ -	$ 17,634	$ 2,824,819
8	Big Lakes East Water Mains	$ 6,088,765	$ -	$ 93,929	$ 5,994,837
9	Big Lakes West Water Mains	$ 6,992,150	$ 36,223.72	$ -	$ 6,955,926
10	Zone 3 Water Mains	$ 89,872	$ -	$ -	$ 89,872
11	5th Meridian - Supply Line From Regional Line	$ 1,555,248	$ -	$ -	$ 1,555,248
12	5th Meridian - Water Reservoir	$ 3,744,000	$ -	$ -	$ 3,744,000
13	5th Meridian (Area A) - Water Mains	$ 898,596	$ -	$ -	$ 898,596
14	5th Meridian (Area B) - Water Mains	$ 1,953,120	$ -	$ -	$ 1,953,120
15	5th Meridian (Area C) - Water Mains	$ 3,086,352	$ -	$ -	$ 3,086,352
16	Acheson Area 11 Water Mains (Near future, long term, and ultimate)	$ 409,761	$ -	$ -	$ 409,761
17	Old Bylaw #52-2003 (A5 - Hunter's Watermain)	$ 304,345	$ 211,318	$ 4,714	$ 88,313
18	Acheson Big Lake Water Servicing Study Update - 2020	$ 50,875	$ -	$ 374	$ 50,501
19	Zone 4 Water Mains	$ 4,266,456	$ -	$ -	$ 4,266,456
20	Zone 5 Water Mains	$ 3,503,812	$ -	$ -	$ 3,503,812
21	Zone 6 Water Mains	$ 5,144,537	$ -	$ -	$ 5,144,537
22	Zone 7 Water Mains	$ 4,340,508	$ -	$ 760,770	$ 3,579,738
23	Zone 8 Water Mains	$ 1,594,674	$ -	$ -	$ 1,594,674
24	Zone 4 Reservoir Expansion (Adjacent to Zone 4 Reservoir) 17,270m3 & Pumphouse	$ -	$ -	$ 11,054	$ (11,054)
25	New PRVs (x9)	$ 804,375	$ -	$ 32,858	$ 771,517
26	Acheson Big Lake Water Servicing Study Update - 2025	$ 40,700	$ -	$ 293	$ 40,407
27	Acheson Big Lake Water Servicing Study Update - 2030	$ 30,525	$ -	$ 212	$ 30,313
28	Acheson Big Lake Water Servicing Study Update - 2035	$ 20,350	$ -	$ 131	$ 20,219
29	Acheson Big Lake Water Servicing Study Update - 2040	$ 10,175	$ -	$ 50	$ 10,125
30	Zone 5 & 7 East-West Distribution Main	$ 1,358,292	$ -	$ 1,607	$ 1,356,685
31	Zone 6 & 8 East-West Distribution Main	$ 2,298,560	$ -	$ -	$ 2,298,560
32	West Acheson South Water Distribution Mains (1501, 1502, 1112, 1113)	$ 139,420	$ -	$ -	$ 139,420
		$ 64,510,350	**$ 1,434,610**	**$ 1,400,406**	**$ 61,675,334**

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 **$61.68 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section B4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Water Offsite Levy Costs



B7. Water Infrastructure Benefiting Areas

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

Benefiting Areas for Water Offsite Infrastructure

		Development Area																														
Item	Developer Cost	101.0	102.0	103.0	103.1	104.0	104.1	105.0	105.1	106.0	107.0	108.0	109.0	110.0	111.0	111.1	201.0	201.1	202.0	203.0	204.0	205.0	206.0	207.0	208.0	208.1	301.0	302.0	302.1	303.0	304.0
1	$ 6,451,909	1	1	1	1	1	1	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	$ (405)	1	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	$ (405)	1	1	1	1	1	1	1	1	1				1	1	1	1	1	1	1			1	1	1	1	1	1	1	1	1
4	$ 1,604,591	1	1	1	1	1	1	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	$ 200,639	1	1	1	1	1	1	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	$ 3,022,252	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															
7	$ 2,824,819																1	1	1	1	1	1	1	1	1	1					
8	$ 5,994,837																														
9	$ 6,955,926																														
10	$ 89,872																										1	1	1	1	1
11	$ 1,555,248																														
12	$ 3,744,000																														
13	$ 898,596																														
14	$ 1,953,120																														
15	$ 3,086,352																														
16	$ 409,761																														
17	$ 88,313								1							1		1								1					
18	$ 50,501	1	1	1	1	1	1	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	$ 4,266,456																														
20	$ 3,503,812																														
21	$ 5,144,537																														
22	$ 3,579,738																														
23	$ 1,594,674																														
24	$ (11,054)	1	1	1	1	1	1	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	$ 771,517	1	1	1	1	1	1	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	$ 40,407	1	1	1	1	1	1	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	$ 30,313	1	1	1	1	1	1	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	$ 20,219	1	1	1	1	1	1	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	$ 10,125	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	$ 1,356,685																														
31	$ 2,298,560																														
32	$ 139,420																														
	$ 61,675,334																														

Item	Developer Cost	Development Area 401.0	401.1	402.0	403.0	404.0	405.0	406.0	407.0	408.0	408.1	501.0	502.0	502.1	503.0	503.1	504.0	504.1	505.0	506.0	507.0	508.0	601.0	602.0	603.0	604.0	605.0	606.0	607.0	608.0
1	$ 6,451,909	1	1	1	1	1	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	$ (405)	1	1	1					1	1	1		1	1	1	1	1	1	1	1	1									
3	$ (405)	1	1	1					1	1	1		1	1	1	1	1	1	1	1	1									
4	$ 1,604,591	1	1	1	1	1	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	$ 200,639	1	1	1	1	1	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	$ 3,022,252																													
7	$ 2,824,819																													
8	$ 5,994,837																													
9	$ 6,955,926																													
10	$ 89,872																													
11	$ 1,555,248																													
12	$ 3,744,000																													
13	$ 898,596																													
14	$ 1,953,120																													
15	$ 3,086,352																													
16	$ 409,761																													
17	$ 88,313																													
18	$ 50,501	1	1	1	1	1	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	$ 4,266,456	1	1	1	1	1	1	1	1	1	1																			
20	$ 3,503,812											1	1	1	1	1	1	1	1	1	1	1								
21	$ 5,144,537																						1	1	1	1	1	1	1	1
22	$ 3,579,738																													
23	$ 1,594,674																													
24	$ (11,054)	1	1	1	1	1	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	$ 771,517	1	1	1	1	1	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	$ 40,407	1	1	1	1	1	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	$ 30,313	1	1	1	1	1	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	$ 20,219	1	1	1	1	1	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	$ 10,125	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	$ 1,356,685											1	1	1	1	1	1	1	1	1	1	1								
31	$ 2,298,560																						1	1	1	1	1	1	1	1
32	$ 139,420																													
	$ 61,675,334																													

Item	Developer Cost	Development Area 701.0	702.0	703.0	704.0	705.0	706.0	707.0	708.0	801.0	802.0	803.0	804.0	805.0	806.0	807.0	808.0	901.0	902.0	903.0	904.0	1001.0	1002.0	1003.0	1004.0	1005.0	1006.0	1007.0	1101.0	1102.0	1103.0	1104.0
1	$ 6,451,909	1	1	1	1	1	1	1	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	$ (405)																	1	1	1	1	1	1	1	1	1	1	1		1		
3	$ (405)																	1	1	1	1	1	1	1	1	1	1	1		1		
4	$ 1,604,591	1	1	1	1	1	1	1	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	$ 200,639	1	1	1	1	1	1	1	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	$ 3,022,252																															
7	$ 2,824,819																															
8	$ 5,994,837																					1	1	1	1	1	1	1				
9	$ 6,955,926																	1	1	1	1											
10	$ 89,872																															
11	$ 1,555,248																															
12	$ 3,744,000																															
13	$ 898,596																															
14	$ 1,953,120																															
15	$ 3,086,352																															
16	$ 409,761																												1	1	1	1
17	$ 88,313																															
18	$ 50,501	1	1	1	1	1	1	1	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	$ 4,266,456																															
20	$ 3,503,812																															
21	$ 5,144,537																															
22	$ 3,579,738	1	1	1	1	1	1	1	1																							
23	$ 1,594,674									1	1	1	1	1	1	1	1															
24	$ (11,054)	1	1	1	1	1	1	1	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	$ 771,517	1	1	1	1	1	1	1	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	$ 40,407	1	1	1	1	1	1	1	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	$ 30,313	1	1	1	1	1	1	1	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	$ 20,219	1	1	1	1	1	1	1	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	$ 10,125	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30	$ 1,356,685	1	1	1	1	1	1	1	1																							
31	$ 2,298,560									1	1	1	1	1	1	1	1															
32	$ 139,420																															
	$ 61,675,334																															

		Development Area																														
Item	Developer Cost	1105.0	1106.0	1107.0	1108.0	1109.0	1110.0	1111.0	1112.0	1113.0	1201.0	1202.0	1203.0	1204.0	1205.0	1301.0	1302.0	1303.0	1304.0	1401.0	1402.0	1403.0	1404.0	1405.0	1501.0	1502.0	1600.1	1600.2	1600.3	1600.4	1600.5	1600.6	1600.7	1600.8
1	$ 6,451,909	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1
2	$ (405)																										1	1	1	1	1		1	1
3	$ (405)																										1	1	1	1	1		1	1
4	$ 1,604,591	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
5	$ 200,639	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
6	$ 3,022,252																																	
7	$ 2,824,819																												1	1	1	1		
8	$ 5,994,837																										1	1						
9	$ 6,955,926																																	
10	$ 89,872																																	
11	$ 1,555,248										1	1	1	1	1	1	1	1	1	1	1	1	1	1									
12	$ 3,744,000										1	1	1	1	1	1	1	1	1	1	1	1	1	1									
13	$ 898,596												1						1															
14	$ 1,953,120											1				1	1			1														
15	$ 3,086,352																				1	1	1	1									
16	$ 409,761	1	1	1	1	1	1	1																										
17	$ 88,313																																	
18	$ 50,501	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
19	$ 4,266,456																																1	1
20	$ 3,503,812																																	
21	$ 5,144,537																																	
22	$ 3,579,738																																	
23	$ 1,594,674																																	
24	$ (11,054)	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
25	$ 771,517	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
26	$ 40,407	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
27	$ 30,313	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
28	$ 20,219	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
29	$ 10,125	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
30	$ 1,356,685																																	
31	$ 2,298,560																																	
32	$ 139,420								1	1															1	1								
	$ 61,675,334																																	

B8. Development and Water Infrastructure Staging Impacts

Water offsite infrastructure will be constructed in a staged fashion over the 25-year review period. County Staff 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, therefore 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.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.31%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **2.25%** 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 County, nor are they charged too little thereby placing an unequitable burden on taxpayers).

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 **$59.37 million** as outlined in the table below. Actual costs, infrastructure staging, and cost estimates were provided by County Engineering staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

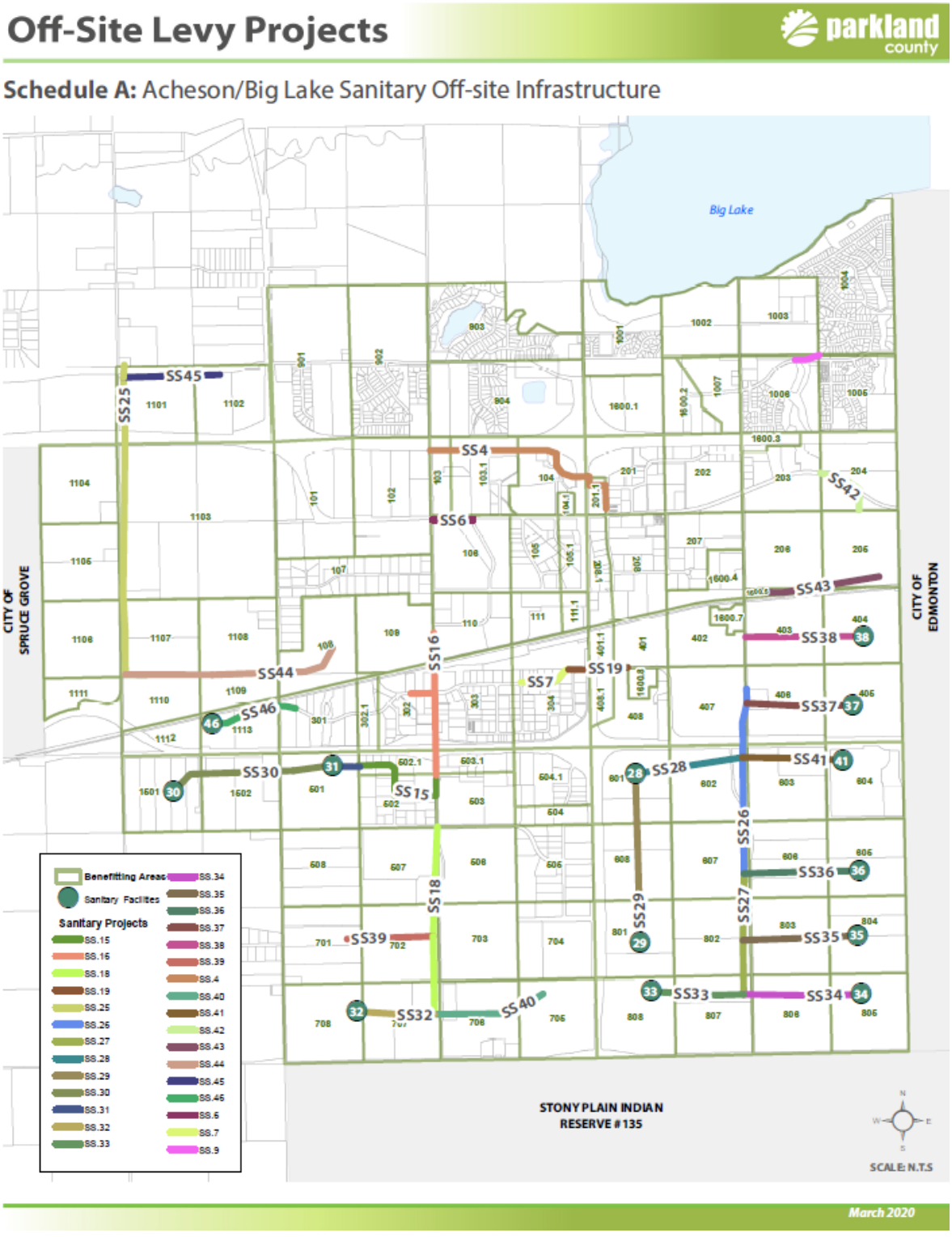
Summary of Sanitary Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	5th Meridian (Area A) Gravity Main	$ -	$ -	$ 964,600	$ 964,600
2	5th Meridian (Area B) Gravity Main	$ -	$ -	$ 3,024,580	$ 3,024,580
3	5th Meridian (Area C) Gravity Main	$ -	$ -	$ 2,512,510	$ 2,512,510
4	Parkland Business Park (Sewer Main Upsizing, etc)	$ -	$ -	$ 3,566,185	$ 3,566,185
5	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ -	$ -	$ -	$ -
6	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ -	$ -	$ 447,933	$ 447,933
7	Acheson Road (Sewer Main Upsizing, etc)	$ -	$ -	$ 641,950	$ 641,950
8	Glowing Embers (Sewer Main Upsizing, etc)	$ -	$ -	$ 550,000	$ 550,000
9	Residential (Meridien Avenue) Creek Crossing (Sewer Main Upsizing, etc)	$ -	$ -	$ 550,400	$ 550,400
10	Bevington Trunk (Hwy 16 A to Hwy 16 Parkland Industrial Estates)	$ 5,825,711	$ -	$ -	$ 5,825,711
11	Old Bylaw #52-2003 (A1 - Acheson Trunk)	$ 323,024	$ 88,816.95	$ -	$ 411,841
12	Old Bylaw #52-2003 (A2 - Hunter's Trunk)	$ 202,499	$ 67,666.46	$ -	$ 270,165
13	Old Bylaw #52-2003 (A3 - Acheson Collection)	$ 359,314	$ 98,795.36	$ -	$ 458,109
14	Bevington Trunk (Oversizing for Acheson Zone 6)	$ 743,873	$ -	$ -	$ 743,873
15	Leder Development Area (Sewer Main Upsizing, etc)	$ -	$ -	$ 849,397	$ 849,397
16	Acheson Trunk North of CN Railway (Sewer Main upsizing, etc.)	$ -	$ -	$ 2,225,100	$ 2,225,100
17	Zone 5 Liftstation Upgrade & Acheson Trunk Upstream of Zone 5 Lifstation (Sewer Main Upsizing, etc)	$ -	$ -	$ 4,658,260	$ 4,658,260
18	Acheson Trunk Extension from DS MH N267 to US MH N672 (Zone 7)	$ -	$ -	$ 2,308,250	$ 2,308,250
19	Acheson Zone East Upsizing (Near Future) Triggered by 3-53-26-4	$ -	$ -	$ 672,900	$ 672,900
20	Acheson Big Lake Sanitary Servicing Study Update - 2020	$ -	$ -	$ 50,875	$ 50,875
21	Acheson Big Lake Sanitary Servicing Study Update - 2025	$ -	$ -	$ 50,875	$ 50,875
22	Acheson Big Lake Sanitary Servicing Study Update - 2030	$ -	$ -	$ 50,875	$ 50,875
23	Acheson Big Lake Sanitary Servicing Study Update - 2035	$ -	$ -	$ 50,875	$ 50,875
24	Acheson Big Lake Sanitary Servicing Study Update - 2040	$ -	$ -	$ 50,875	$ 50,875
25	Atim Creek Gravity Trunk (West Acheson Area 11)	$ -	$ -	$ 2,590,500	$ 2,590,500
26	Bevington Trunk Extension Zone 6 (Oversizing for Zone 8)	$ -	$ -	$ 1,811,906	$ 1,811,906
27	Bevington Trunk Extension Zone 8	$ -	$ -	$ 951,844	$ 951,844
28	Zone 6 Liftstation #1 & Forcemain	$ -	$ -	$ 1,724,000	$ 1,724,000
29	Zone 6 Liftstation #5 & Forcemain including LS #1 Upgrades	$ -	$ -	$ 3,679,000	$ 3,679,000
30	Area 15 Liftstation #3 & Forcemain	$ -	$ -	$ 2,004,001	$ 2,004,001
31	Zone 5 Liftstation #4 & Forcemain	$ -	$ -	$ 1,438,000	$ 1,438,000
32	Zone 7 Liftstation #6 & Forcemain	$ -	$ -	$ 1,512,000	$ 1,512,000
33	Zone 8 Liftstation #8 & Forcemain	$ -	$ -	$ 1,384,000	$ 1,384,000
34	Zone 8 Liftstation #9 & Forcemain	$ -	$ -	$ 1,288,000	$ 1,288,000
35	Zone 8 Liftstation #10 & Forcemain	$ -	$ -	$ 1,512,000	$ 1,512,000
36	Zone 6 Liftstation #11 & Forcemain	$ -	$ -	$ 1,512,000	$ 1,512,000
37	Zone 4 Liftstation #12 & Forcemain	$ -	$ -	$ 1,708,000	$ 1,708,000
38	Zone 4 Liftstation #13 & Forcemain	$ -	$ -	$ 1,561,000	$ 1,561,000
39	Zone 7 collector main (Area 701 & 702)	$ -	$ -	$ 480,000	$ 480,000
40	Zone 7 collector main (Area 706 & 705)	$ -	$ -	$ 320,000	$ 320,000
41	Zone 6 collector main (Area 604 & 603)	$ -	$ -	$ 358,750	$ 358,750
42	Zone 2 collector main (Area 205 & 204)	$ -	$ -	$ 169,805	$ 169,805
43	Zone 2 collector main (Area 205 & 206)	$ -	$ -	$ 511,800	$ 511,800
44	Area 11 (Atim Road) collector main (Area 108, 1109. 1110)	$ -	$ -	$ 360,000	$ 360,000
45	West Big Lake collector main (Area 1102 & 1101)	$ -	$ -	$ 187,500	$ 187,500
46	Area 1112/1113 (West Acheson) Liftstation #2 & Forcemain	$ -	$ -	$ 1,365,000	$ 1,365,000
		$ 7,454,421	**$ 255,279**	**$ 51,655,544**	**$ 59,365,243**

*Costs are based on 2019 estimates and include engineering costs and contingencies.

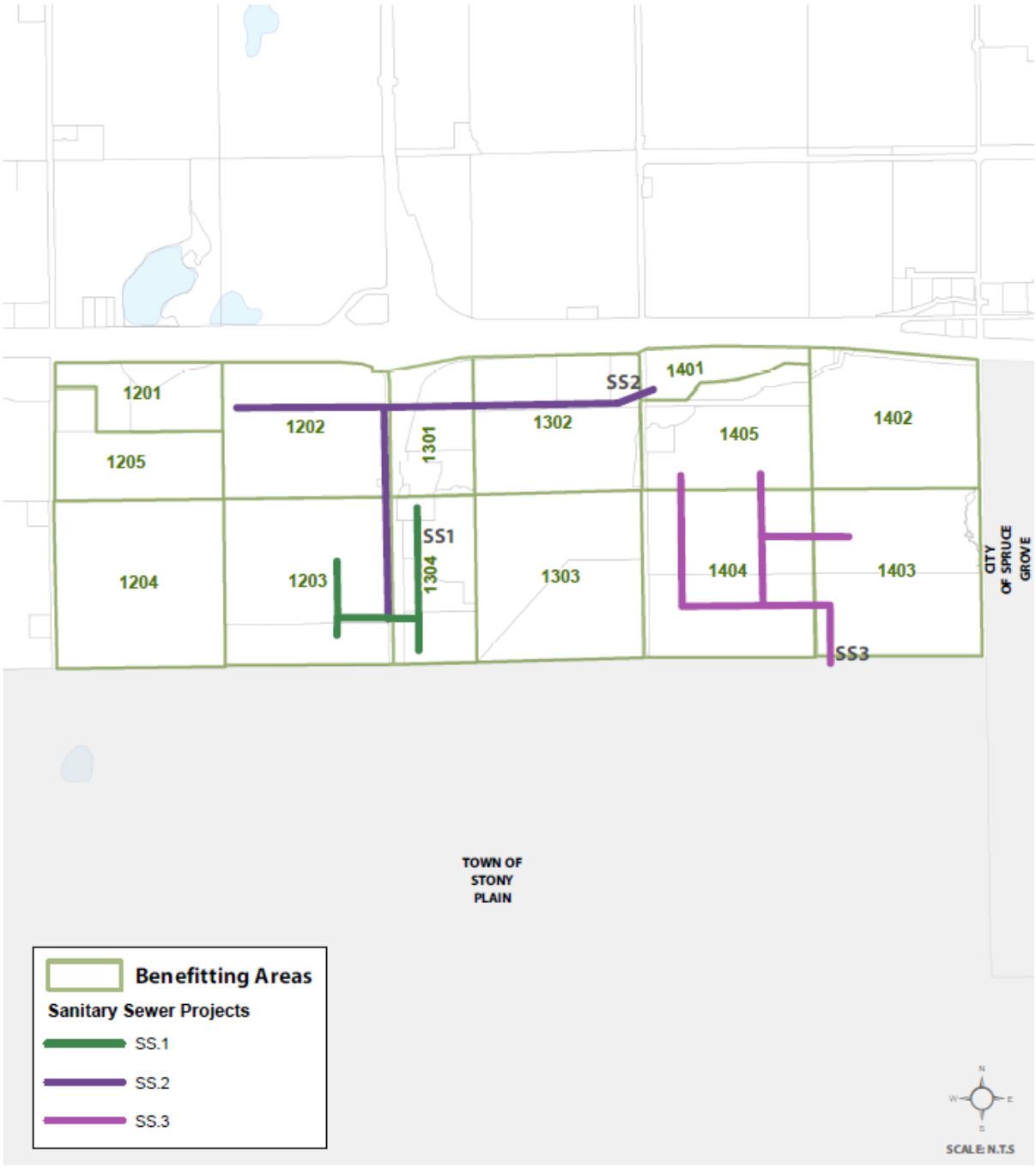
A map showing the location of the sanitary offsite infrastructure is shown below.

Location of Sanitary Offsite Infrastructure



Off-Site Levy Projects

Schedule J: Fifth Meridian Sanitary Sewer Off-site Infrastructure



March 2020

C2. Sanitary Offsite Infrastructure Grants & Contributions to Date

The MGA enables the County 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). Parkland County has/will receive **$2.95 million** in special grants and contributions for sanitary offsite levy infrastructure as shown in the table below (note, if the County 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 cost is **$56.41 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	5th Meridian (Area A) Gravity Main	$ 964,600	$ -		$ -	$ 964,600
2	5th Meridian (Area B) Gravity Main	$ 3,024,580	$ -		$ -	$ 3,024,580
3	5th Meridian (Area C) Gravity Main	$ 2,512,510	$ -		$ -	$ 2,512,510
4	Parkland Business Park (Sewer Main Upsizing, etc)	$ 3,566,185	$ -		$ -	$ 3,566,185
5	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ -	$ -		$ -	$ -
6	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ 447,933	$ -		$ -	$ 447,933
7	Acheson Road (Sewer Main Upsizing, etc)	$ 641,950	$ -		$ -	$ 641,950
8	Glowing Embers (Sewer Main Upsizing, etc)	$ 550,000	$ -		$ -	$ 550,000
9	Residential (Meridien Avenue) Creek Crossing (Sewer Main Upsizing, etc)	$ 550,400	$ -		$ -	$ 550,400
10	Bevington Trunk (Hwy 16 A to Hwy 16 Parkland Industrial Estates)	$ 5,825,711	$ -	$ 2,909,771	$ -	$ 2,915,939
11	Old Bylaw #52-2003 (A1 - Acheson Trunk)	$ 411,841	$ -	$ 17,478	$ -	$ 394,363
12	Old Bylaw #52-2003 (A2 - Hunter's Trunk)	$ 270,165	$ -		$ -	$ 270,165
13	Old Bylaw #52-2003 (A3 - Acheson Collection)	$ 458,109	$ -	$ 25,440	$ -	$ 432,669
14	Bevington Trunk (Oversizing for Acheson Zone 6)	$ 743,873	$ -		$ -	$ 743,873
15	Leder Development Area (Sewer Main Upsizing, etc)	$ 849,397	$ -		$ -	$ 849,397
16	Acheson Trunk North of CN Railway (Sewer Main upsizing, etc.)	$ 2,225,100	$ -		$ -	$ 2,225,100
17	Zone 5 Liftstation Upgrade & Acheson Trunk Upstream of Zone 5 Lifstation (Sewer Main Upsizing, etc)	$ 4,658,260	$ -		$ -	$ 4,658,260
18	Acheson Trunk Extension from DS MH N267 to US MH N672 (Zone 7)	$ 2,308,250	$ -		$ -	$ 2,308,250
19	Acheson Zone East Upsizing (Near Future) Triggered by 3-53-26-4	$ 672,900	$ -	$ -	$ -	$ 672,900
20	Acheson Big Lake Sanitary Servicing Study Update - 2020	$ 50,875	$ -	$ -	$ -	$ 50,875
21	Acheson Big Lake Sanitary Servicing Study Update - 2025	$ 50,875	$ -	$ -	$ -	$ 50,875
22	Acheson Big Lake Sanitary Servicing Study Update - 2030	$ 50,875	$ -	$ -	$ -	$ 50,875
23	Acheson Big Lake Sanitary Servicing Study Update - 2035	$ 50,875	$ -	$ -	$ -	$ 50,875
24	Acheson Big Lake Sanitary Servicing Study Update - 2040	$ 50,875	$ -	$ -	$ -	$ 50,875
25	Atim Creek Gravity Trunk (West Acheson Area 11)	$ 2,590,500	$ -	$ -	$ -	$ 2,590,500
26	Bevington Trunk Extension Zone 6 (Oversizing for Zone 8)	$ 1,811,906	$ -	$ -	$ -	$ 1,811,906
27	Bevington Trunk Extension Zone 8	$ 951,844	$ -	$ -	$ -	$ 951,844
28	Zone 6 Liftstation #1 & Forcemain	$ 1,724,000	$ -	$ -	$ -	$ 1,724,000
29	Zone 6 Liftstation #5 & Forcemain including LS #1 Upgrades	$ 3,679,000	$ -	$ -	$ -	$ 3,679,000
30	Area 15 Liftstation #3 & Forcemain	$ 2,004,001	$ -	$ -	$ -	$ 2,004,001
31	Zone 5 Liftstation #4 & Forcemain	$ 1,438,000	$ -	$ -	$ -	$ 1,438,000
32	Zone 7 Liftstation #6 & Forcemain	$ 1,512,000	$ -	$ -	$ -	$ 1,512,000
33	Zone 8 Liftstation #8 & Forcemain	$ 1,384,000	$ -	$ -	$ -	$ 1,384,000
34	Zone 8 Liftstation #9 & Forcemain	$ 1,288,000	$ -	$ -	$ -	$ 1,288,000
35	Zone 8 Liftstation #10 & Forcemain	$ 1,512,000	$ -	$ -	$ -	$ 1,512,000
36	Zone 6 Liftstation #11 & Forcemain	$ 1,512,000	$ -	$ -	$ -	$ 1,512,000
37	Zone 4 Liftstation #12 & Forcemain	$ 1,708,000	$ -	$ -	$ -	$ 1,708,000
38	Zone 4 Liftstation #13 & Forcemain	$ 1,561,000	$ -	$ -	$ -	$ 1,561,000
39	Zone 7 collector main (Area 701 & 702)	$ 480,000	$ -	$ -	$ -	$ 480,000
40	Zone 7 collector main (Area 706 & 705)	$ 320,000	$ -	$ -	$ -	$ 320,000
41	Zone 6 collector main (Area 604 & 603)	$ 358,750	$ -	$ -	$ -	$ 358,750
42	Zone 2 collector main (Area 205 & 204)	$ 169,805	$ -	$ -	$ -	$ 169,805
43	Zone 2 collector main (Area 205 & 206)	$ 511,800	$ -	$ -	$ -	$ 511,800
44	Area 11 (Atim Road) collector main (Area 108, 1109. 1110)	$ 360,000	$ -	$ -	$ -	$ 360,000
45	West Big Lake collector main (Area 1102 & 1101)	$ 187,500	$ -	$ -	$ -	$ 187,500
46	Area 1112/1113 (West Acheson) Liftstation #2 & Forcemain	$ 1,365,000	$ -	$ -	$ -	$ 1,365,000
		$ 59,365,243	**$ -**	**$ 2,952,690**	**$ -**	**$ 56,412,554**

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 Section C4). The County 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 County's annual rate/bylaw updates.

Sanitary Infrastructure Staging

Item	Project Description	Construction Start Year
1	5th Meridian (Area A) Gravity Main	2033
2	5th Meridian (Area B) Gravity Main	2033
3	5th Meridian (Area C) Gravity Main	2033
4	Parkland Business Park (Sewer Main Upsizing, etc)	2019
5	Parkland Industrial Estates (Sewer Main Upsizing, etc)	
6	Parkland Industrial Estates (Sewer Main Upsizing, etc)	2021
7	Acheson Road (Sewer Main Upsizing, etc)	2023
8	Glowing Embers (Sewer Main Upsizing, etc)	2018
9	Residential (Meridien Avenue) Creek Crossing (Sewer Main Upsizing, etc)	2024
10	Bevington Trunk (Hwy 16 A to Hwy 16 Parkland Industrial Estates)	
11	Old Bylaw #52-2003 (A1 - Acheson Trunk)	
12	Old Bylaw #52-2003 (A2 - Hunter's Trunk)	
13	Old Bylaw #52-2003 (A3 - Acheson Collection)	
14	Bevington Trunk (Oversizing for Acheson Zone 6)	
15	Leder Development Area (Sewer Main Upsizing, etc)	2044
16	Acheson Trunk North of CN Railway (Sewer Main upsizing, etc.)	2044
17	Zone 5 Liftstation Upgrade & Acheson Trunk Upstream of Zone 5 Lifstation (Sewer Main Upsizing, etc)	2044
18	Acheson Trunk Extension from DS MH N267 to US MH N672 (Zone 7)	2019
19	Acheson Zone East Upsizing (Near Future) Triggered by 3-53-26-4	2022
20	Acheson Big Lake Sanitary Servicing Study Update - 2020	2020
21	Acheson Big Lake Sanitary Servicing Study Update - 2025	2025
22	Acheson Big Lake Sanitary Servicing Study Update - 2030	2030
23	Acheson Big Lake Sanitary Servicing Study Update - 2035	2035
24	Acheson Big Lake Sanitary Servicing Study Update - 2040	2040
25	Atim Creek Gravity Trunk (West Acheson Area 11)	2044
26	Bevington Trunk Extension Zone 6 (Oversizing for Zone 8)	2044
27	Bevington Trunk Extension Zone 8	2044
28	Zone 6 Liftstation #1 & Forcemain	2021
29	Zone 6 Liftstation #5 & Forcemain including LS #1 Upgrades	2021
30	Area 15 Liftstation #3 & Forcemain	2044
31	Zone 5 Liftstation #4 & Forcemain	2021
32	Zone 7 Liftstation #6 & Forcemain	2040
33	Zone 8 Liftstation #8 & Forcemain	2044
34	Zone 8 Liftstation #9 & Forcemain	2044
35	Zone 8 Liftstation #10 & Forcemain	2044
36	Zone 6 Liftstation #11 & Forcemain	2044
37	Zone 4 Liftstation #12 & Forcemain	2026
38	Zone 4 Liftstation #13 & Forcemain	2022
39	Zone 7 collector main (Area 701 & 702)	2037
40	Zone 7 collector main (Area 706 & 705)	2034
41	Zone 6 collector main (Area 604 & 603)	2022
42	Zone 2 collector main (Area 205 & 204)	2022
43	Zone 2 collector main (Area 205 & 206)	2021
44	Area 11 (Atim Road) collector main (Area 108, 1109. 1110)	2044
45	West Big Lake collector main (Area 1102 & 1101)	2031
46	Area 1112/1113 (West Acheson) Liftstation #2 & Forcemain	2044

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

**Project costs were inflated by 2% per annum for the first 3 years, and 3% per annum thereafter to the year of construction.

***A blank year (if any) represents a project which has been combined with another project, costs have been removed from the model, or project has been completed.

C4. Sanitary Offsite Infrastructure Benefiting Parties

The sanitary offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by the County's staff. Four potential benefiting parties were identified including:

- Parkland County – a portion of the sanitary infrastructure which is required to service existing residents/businesses.
- Other Stakeholders – other parties (such as neighboring municipalities) that benefit from the infrastructure.
- Parkland County Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- Parkland County Future Development (In Rates) – all growth-related infrastructure (i.e., levyable sanitary infrastructure costs) during the 25-year rate planning period.
- The table below outlines the allocation of sanitary offsite levy infrastructure costs to benefiting parties. Project allocations were determined by County staff.

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	5th Meridian (Area A) Gravity Main	$ 964,600			52.0%	48.0%
2	5th Meridian (Area B) Gravity Main	$ 3,024,580			52.0%	48.0%
3	5th Meridian (Area C) Gravity Main	$ 2,512,510			52.0%	48.0%
4	Parkland Business Park (Sewer Main Upsizing, etc)	$ 3,566,185			0.0%	100.0%
5	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ -			0.0%	100.0%
6	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ 447,933			4.0%	96.0%
7	Acheson Road (Sewer Main Upsizing, etc)	$ 641,950			12.0%	88.0%
8	Glowing Embers (Sewer Main Upsizing, etc)	$ 550,000			0.0%	100.0%
9	Residential (Meridien Avenue) Creek Crossing (Sewer Main Upsizing, etc)	$ 550,400			16.0%	84.0%
10	Bevington Trunk (Hwy 16 A to Hwy 16 Parkland Industrial Estates)	$ 2,915,939			0.0%	100.0%
11	Old Bylaw #52-2003 (A1 - Acheson Trunk)	$ 394,363	2.8%		0.0%	97.2%
12	Old Bylaw #52-2003 (A2 - Hunter's Trunk)	$ 270,165	8.7%		0.0%	91.3%
13	Old Bylaw #52-2003 (A3 - Acheson Collection)	$ 432,669	8.0%		0.0%	92.0%
14	Bevington Trunk (Oversizing for Acheson Zone 6)	$ 743,873			0.0%	100.0%
15	Leder Development Area (Sewer Main Upsizing, etc)	$ 849,397			96.0%	4.0%
16	Acheson Trunk North of CN Railway (Sewer Main upsizing, etc.)	$ 2,225,100			96.0%	4.0%
17	Zone 5 Liftstation Upgrade & Acheson Trunk Upstream of Zone 5 Lifstation (Sewer Main Upsizing, etc)	$ 4,658,260			96.0%	4.0%
18	Acheson Trunk Extension from DS MH N267 to US MH N672 (Zone 7)	$ 2,308,250			0.0%	100.0%
19	Acheson Zone East Upsizing (Near Future) Triggered by 3-53-26-4	$ 672,900			8.0%	92.0%
20	Acheson Big Lake Sanitary Servicing Study Update - 2020	$ 50,875			0.0%	100.0%
21	Acheson Big Lake Sanitary Servicing Study Update - 2025	$ 50,875			20.0%	80.0%
22	Acheson Big Lake Sanitary Servicing Study Update - 2030	$ 50,875			40.0%	60.0%
23	Acheson Big Lake Sanitary Servicing Study Update - 2035	$ 50,875			60.0%	40.0%
24	Acheson Big Lake Sanitary Servicing Study Update - 2040	$ 50,875			80.0%	20.0%
25	Atim Creek Gravity Trunk (West Acheson Area 11)	$ 2,590,500			96.0%	4.0%
26	Bevington Trunk Extension Zone 6 (Oversizing for Zone 8)	$ 1,811,906			96.0%	4.0%
27	Bevington Trunk Extension Zone 8	$ 951,844			96.0%	4.0%
28	Zone 6 Liftstation #1 & Forcemain	$ 1,724,000			4.0%	96.0%
29	Zone 6 Liftstation #5 & Forcemain including LS #1 Upgrades	$ 3,679,000			4.0%	96.0%
30	Area 15 Liftstation #3 & Forcemain	$ 2,004,001			96.0%	4.0%
31	Zone 5 Liftstation #4 & Forcemain	$ 1,438,000			4.0%	96.0%
32	Zone 7 Liftstation #6 & Forcemain	$ 1,512,000			80.0%	20.0%
33	Zone 8 Liftstation #8 & Forcemain	$ 1,384,000			96.0%	4.0%
34	Zone 8 Liftstation #9 & Forcemain	$ 1,288,000			96.0%	4.0%
35	Zone 8 Liftstation #10 & Forcemain	$ 1,512,000			96.0%	4.0%
36	Zone 6 Liftstation #11 & Forcemain	$ 1,512,000			96.0%	4.0%
37	Zone 4 Liftstation #12 & Forcemain	$ 1,708,000			24.0%	76.0%
38	Zone 4 Liftstation #13 & Forcemain	$ 1,561,000			8.0%	92.0%
39	Zone 7 collector main (Area 701 & 702)	$ 480,000			68.0%	32.0%
40	Zone 7 collector main (Area 706 & 705)	$ 320,000			56.0%	44.0%
41	Zone 6 collector main (Area 604 & 603)	$ 358,750			8.0%	92.0%
42	Zone 2 collector main (Area 205 & 204)	$ 169,805			8.0%	92.0%
43	Zone 2 collector main (Area 205 & 206)	$ 511,800			4.0%	96.0%
44	Area 11 (Atim Road) collector main (Area 108, 1109. 1110)	$ 360,000			96.0%	4.0%
45	West Big Lake collector main (Area 1102 & 1101)	$ 187,500			44.0%	56.0%
46	Area 1112/1113 (West Acheson) Liftstation #2 & Forcemain	$ 1,365,000			96.0%	4.0%
		$ 56,412,554				

**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. In future, as the 25-year review period moves further out these additional developer costs will gradually be included in future rate calculations.

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 **$28.34 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 County has collected **$1.30 million** in sanitary offsite levies to date. This results in an adjusted offsite levy cost of approximately **$27.04 million**.

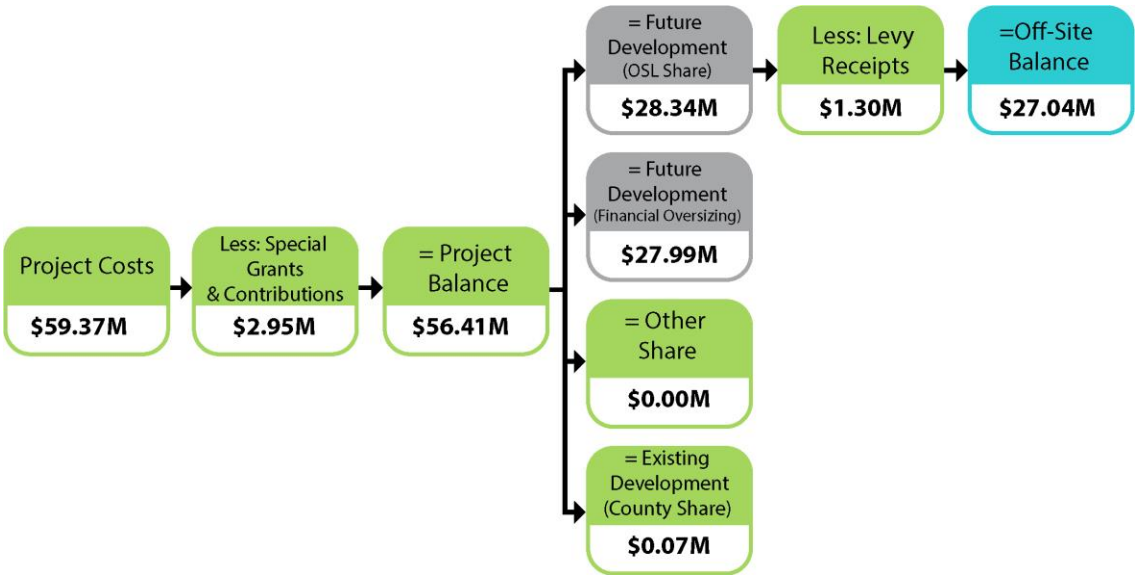
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected Under Old Bylaw #52-2003	Offsite Levy Funds Collected Starting Jan 1, 2013	Adjusted Developer (Levy) Cost
1	5th Meridian (Area A) Gravity Main	$ 463,008	$ -	$ -	$ 463,008
2	5th Meridian (Area B) Gravity Main	$ 1,451,798	$ -	$ -	$ 1,451,798
3	5th Meridian (Area C) Gravity Main	$ 1,206,005	$ -	$ -	$ 1,206,005
4	Parkland Business Park (Sewer Main Upsizing, etc)	$ 3,566,185	$ -	$ 107,411	$ 3,458,774
5	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ -	$ -	$ -	$ -
6	Parkland Industrial Estates (Sewer Main Upsizing, etc)	$ 430,016	$ -	$ 64,718	$ 365,298
7	Acheson Road (Sewer Main Upsizing, etc)	$ 564,916	$ -	$ -	$ 564,916
8	Glowing Embers (Sewer Main Upsizing, etc)	$ 550,000	$ -	$ 339,640	$ 210,360
9	Residential (Meridien Avenue) Creek Crossing (Sewer Main Upsizing, etc)	$ 462,336	$ -	$ -	$ 462,336
10	Bevington Trunk (Hwy 16 A to Hwy 16 Parkland Industrial Estates)	$ 2,915,939	$ -	$ -	$ 2,915,939
11	Old Bylaw #52-2003 (A1 - Acheson Trunk)	$ 383,447	$ 203,286	$ 76,267	$ 103,894
12	Old Bylaw #52-2003 (A2 - Hunter's Trunk)	$ 246,661	$ 110,051	$ 12,873	$ 123,737
13	Old Bylaw #52-2003 (A3 - Acheson Collection)	$ 398,268	$ 228,724	$ 83,352	$ 86,192
14	Bevington Trunk (Oversizing for Acheson Zone 6)	$ 743,873	$ -	$ -	$ 743,873
15	Leder Development Area (Sewer Main Upsizing, etc)	$ 33,976	$ -	$ -	$ 33,976
16	Acheson Trunk North of CN Railway (Sewer Main upsizing, etc.)	$ 89,004	$ -	$ 72,900	$ 16,104
17	Zone 5 Liftstation Upgrade & Acheson Trunk Upstream of Zone 5 Lifstation (Sewer Main Upsizing, etc)	$ 186,330	$ -	$ -	$ 186,330
18	Acheson Trunk Extension from DS MH N267 to US MH N672 (Zone 7)	$ 2,308,250	$ -	$ 5,916	$ 2,302,334
19	Acheson Zone East Upsizing (Near Future) Triggered by 3-53-26-4	$ 619,068	$ -	$ -	$ 619,068
20	Acheson Big Lake Sanitary Servicing Study Update - 2020	$ 50,875	$ -	$ 668	$ 50,207
21	Acheson Big Lake Sanitary Servicing Study Update - 2025	$ 40,700	$ -	$ 524	$ 40,176
22	Acheson Big Lake Sanitary Servicing Study Update - 2030	$ 30,525	$ -	$ 380	$ 30,145
23	Acheson Big Lake Sanitary Servicing Study Update - 2035	$ 20,350	$ -	$ 237	$ 20,113
24	Acheson Big Lake Sanitary Servicing Study Update - 2040	$ 10,175	$ -	$ 93	$ 10,082
25	Atim Creek Gravity Trunk (West Acheson Area 11)	$ 103,620	$ -	$ -	$ 103,620
26	Bevington Trunk Extension Zone 6 (Oversizing for Zone 8)	$ 72,476	$ -	$ -	$ 72,476
27	Bevington Trunk Extension Zone 8	$ 38,074	$ -	$ -	$ 38,074
28	Zone 6 Liftstation #1 & Forcemain	$ 1,655,040	$ -	$ -	$ 1,655,040
29	Zone 6 Liftstation #5 & Forcemain including LS #1 Upgrades	$ 3,531,840	$ -	$ -	$ 3,531,840
30	Area 15 Liftstation #3 & Forcemain	$ 80,160	$ -	$ -	$ 80,160
31	Zone 5 Liftstation #4 & Forcemain	$ 1,380,480	$ -	$ -	$ 1,380,480
32	Zone 7 Liftstation #6 & Forcemain	$ 302,400	$ -	$ -	$ 302,400
33	Zone 8 Liftstation #8 & Forcemain	$ 55,360	$ -	$ -	$ 55,360
34	Zone 8 Liftstation #9 & Forcemain	$ 51,520	$ -	$ -	$ 51,520
35	Zone 8 Liftstation #10 & Forcemain	$ 60,480	$ -	$ -	$ 60,480
36	Zone 6 Liftstation #11 & Forcemain	$ 60,480	$ -	$ -	$ 60,480
37	Zone 4 Liftstation #12 & Forcemain	$ 1,298,080	$ -	$ -	$ 1,298,080
38	Zone 4 Liftstation #13 & Forcemain	$ 1,436,120	$ -	$ -	$ 1,436,120
39	Zone 7 collector main (Area 701 & 702)	$ 153,600	$ -	$ -	$ 153,600
40	Zone 7 collector main (Area 706 & 705)	$ 140,800	$ -	$ -	$ 140,800
41	Zone 6 collector main (Area 604 & 603)	$ 330,050	$ -	$ -	$ 330,050
42	Zone 2 collector main (Area 205 & 204)	$ 156,221	$ -	$ -	$ 156,221
43	Zone 2 collector main (Area 205 & 206)	$ 491,328	$ -	$ -	$ 491,328
44	Area 11 (Atim Road) collector main (Area 108, 1109. 1110)	$ 14,400	$ -	$ -	$ 14,400
45	West Big Lake collector main (Area 1102 & 1101)	$ 105,000	$ -	$ -	$ 105,000
46	Area 1112/1113 (West Acheson) Liftstation #2 & Forcemain	$ 54,600	$ -	$ -	$ 54,600
		$ 28,343,833	**$ 542,061**	**$ 764,978**	**$ 27,036,794**

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 **$27.04 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section C4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Sanitary Offsite Levy Costs



C7. Sanitary Infrastructure Benefiting Areas

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

Benefiting Areas for Sanitary Offsite Infrastructure

Item	Developer Cost	101.0	102.0	103.0	103.1	104.0	104.1	105.0	105.1	106.0	107.0	108.0	109.0	110.0	111.0	111.1	201.0	201.1	202.0	203.0	204.0	205.0	206.0	207.0	208.0	208.1	301.0	302.0	302.1	303.0	304.0
1	$ 463,008																														
2	$ 1,451,798																														
3	$ 1,206,005																														
4	$ 3,458,774			1	1	1	1		1								1	1							1	1					
5	$ -																								1	1					
6	$ 365,298							1		1				1	1																
7	$ 564,916																														1
8	$ 210,360																														
9	$ 462,336																														
10	$ 2,915,939																				1										
11	$ 103,894	1	1	1	1	1	1	1	1	1				1	1	1	1	1							1	1			1		
12	$ 123,737				1				1							1		1								1					
13	$ 86,192																												1		
14	$ 743,873																														
15	$ 33,976																														
16	$ 16,104																										1	1	1	1	1
17	$ 186,330																														
18	$ 2,302,334																														
19	$ 619,068																														
20	$ 50,207	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
21	$ 40,176	1	1	1	1	1	1	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	$ 30,145	1	1	1	1	1	1	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	$ 20,113	1	1	1	1	1	1	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	$ 10,082	1	1	1	1	1	1	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	$ 103,620											1																			
26	$ 72,476																														
27	$ 38,074																														
28	$ 1,655,040																														
29	$ 3,531,840																														
30	$ 80,160																														
31	$ 1,380,480																														
32	$ 302,400																														
33	$ 55,360																														
34	$ 51,520																														
35	$ 60,480																														
36	$ 60,480																														
37	$ 1,298,080																														
38	$ 1,436,120																														
39	$ 153,600																														
40	$ 140,800																														
41	$ 330,050																														
42	$ 156,221																				1	1									
43	$ 491,328																					1	1								
44	$ 14,400											1																			
45	$ 105,000																														
46	$ 54,600																														
	$ 27,036,794																														

Item	Developer Cost	401.0	401.1	402.0	403.0	404.0	405.0	406.0	407.0	408.0	408.1	501.0	502.0	502.1	503.0	503.1	504.0	504.1	505.0	506.0	507.0	508.0	601.0	602.0	603.0	604.0	605.0	606.0	607.0	608.0
1	$ 463,008																													
2	$ 1,451,798																													
3	$ 1,206,005																													
4	$ 3,458,774																													
5	$ -																													
6	$ 365,298																													
7	$ 564,916	1	1							1	1																			
8	$ 210,360																1	1												
9	$ 462,336																													
10	$ 2,915,939				1	1	1	1																						
11	$ 103,894	1	1							1	1	1	1	1	1	1	1	1												
12	$ 123,737																													
13	$ 86,192		1								1			1		1		1												
14	$ 743,873																						1	1	1	1				1
15	$ 33,976											1	1	1																
16	$ 16,104	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1								
17	$ 186,330											1	1	1	1	1	1	1	1	1	1	1								
18	$ 2,302,334																			1										
19	$ 619,068	1	1	1					1	1	1																			
20	$ 50,207	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
21	$ 40,176	1	1	1	1	1	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	$ 30,145	1	1	1	1	1	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	$ 20,113	1	1	1	1	1	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	$ 10,082	1	1	1	1	1	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	$ 103,620																													
26	$ 72,476																						1	1	1	1	1	1	1	1
27	$ 38,074																													
28	$ 1,655,040																						1	1						
29	$ 3,531,840																													1
30	$ 80,160																													
31	$ 1,380,480											1																		
32	$ 302,400																													
33	$ 55,360																													
34	$ 51,520																													
35	$ 60,480																													
36	$ 60,480																										1	1		
37	$ 1,298,080						1	1																						
38	$ 1,436,120				1	1																								
39	$ 153,600																													
40	$ 140,800																													
41	$ 330,050																								1	1				
42	$ 156,221																													
43	$ 491,328																													
44	$ 14,400																													
45	$ 105,000																													
46	$ 54,600																													
	$ 27,036,794																													

Item	Developer Cost	701.0	702.0	703.0	704.0	705.0	706.0	707.0	708.0	801.0	802.0	803.0	804.0	805.0	806.0	807.0	808.0	901.0	902.0	903.0	904.0	1001.0	1002.0	1003.0	1004.0	1005.0	1006.0	1007.0	1101.0	1102.0	1103.0	1104.0
1	$ 463,008																														
2	$ 1,451,798																														
3	$ 1,206,005																														
4	$ 3,458,774																														
5	$ -																														
6	$ 365,298																														
7	$ 564,916																														
8	$ 210,360																														
9	$ 462,336																										1	1			
10	$ 2,915,939																														
11	$ 103,894																														
12	$ 123,737																														
13	$ 86,192																														
14	$ 743,873									1																					
15	$ 33,976																														
16	$ 16,104	1	1	1	1	1	1	1	1																						
17	$ 186,330	1	1	1	1	1	1	1	1																						
18	$ 2,302,334	1	1	1		1	1	1	1																						
19	$ 619,068																														
20	$ 50,207	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	1
21	$ 40,176	1	1	1	1	1	1	1	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	$ 30,145	1	1	1	1	1	1	1	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	$ 20,113	1	1	1	1	1	1	1	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	$ 10,082	1	1	1	1	1	1	1	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	$ 103,620																												1	1	1	1
26	$ 72,476									1	1	1	1	1	1	1	1														
27	$ 38,074									1	1	1	1	1	1	1	1														
28	$ 1,655,040																														
29	$ 3,531,840									1																					
30	$ 80,160																														
31	$ 1,380,480																														
32	$ 302,400							1	1																						
33	$ 55,360															1	1														
34	$ 51,520													1	1																
35	$ 60,480											1	1																		
36	$ 60,480																														
37	$ 1,298,080																														
38	$ 1,436,120																														
39	$ 153,600	1	1																												
40	$ 140,800					1	1																								
41	$ 330,050																														
42	$ 156,221																														
43	$ 491,328																														
44	$ 14,400																														
45	$ 105,000																												1	1	
46	$ 54,600																														
	$ 27,036,794																														

Item	Developer Cost	1105.0	1106.0	1107.0	1108.0	1109.0	1110.0	1111.0	1112.0	1113.0	1201.0	1202.0	1203.0	1204.0	1205.0	1301.0	1302.0	1303.0	1304.0	1401.0	1402.0	1403.0	1404.0	1405.0	1501.0	1502.0	1600.1	1600.2	1600.3	1600.4	1600.5	1600.6	1600.7	1600.8
1	$ 463,008												1						1															
2	$ 1,451,798											1				1	1			1															
3	$ 1,206,005																				1	1	1	1										
4	$ 3,458,774																																	
5	$ -																																	
6	$ 365,298																																	
7	$ 564,916																																	1
8	$ 210,360																																	
9	$ 462,336																											1						
10	$ 2,915,939																										1	1	1	1	1	1	1	1
11	$ 103,894																																	1
12	$ 123,737																																	
13	$ 86,192																																	
14	$ 743,873																																	
15	$ 33,976																								1	1								
16	$ 16,104																								1	1								1
17	$ 186,330																								1	1								
18	$ 2,302,334																																	
19	$ 619,068																																	1
20	$ 50,207	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
21	$ 40,176	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
22	$ 30,145	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
23	$ 20,113	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
24	$ 10,082	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1	1
25	$ 103,620	1	1	1	1	1	1	1																										
26	$ 72,476																																	
27	$ 38,074																																	
28	$ 1,655,040																																	
29	$ 3,531,840																																	
30	$ 80,160																								1	1								
31	$ 1,380,480																								1	1								
32	$ 302,400																																	
33	$ 55,360																																	
34	$ 51,520																																	
35	$ 60,480																																	
36	$ 60,480																																	
37	$ 1,298,080																																	
38	$ 1,436,120																																	
39	$ 153,600																																	
40	$ 140,800																																	
41	$ 330,050																																	
42	$ 156,221																																	
43	$ 491,328																																	
44	$ 14,400					1	1																											
45	$ 105,000																																	
46	$ 54,600								1	1																								
	$ 27,036,794																																	

C8. Development and Sanitary Infrastructure Staging Impacts

Sanitary offsite infrastructure will be constructed in a staged fashion over the 25-year development period. County Staff 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, therefore 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.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.31%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **2.25%** 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 County, nor are they charged too little thereby placing an unequitable burden on taxpayers).

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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 **$199.66 million** as outlined in the table below. Actual costs, infrastructure staging, and cost estimates were provided by County Engineering staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

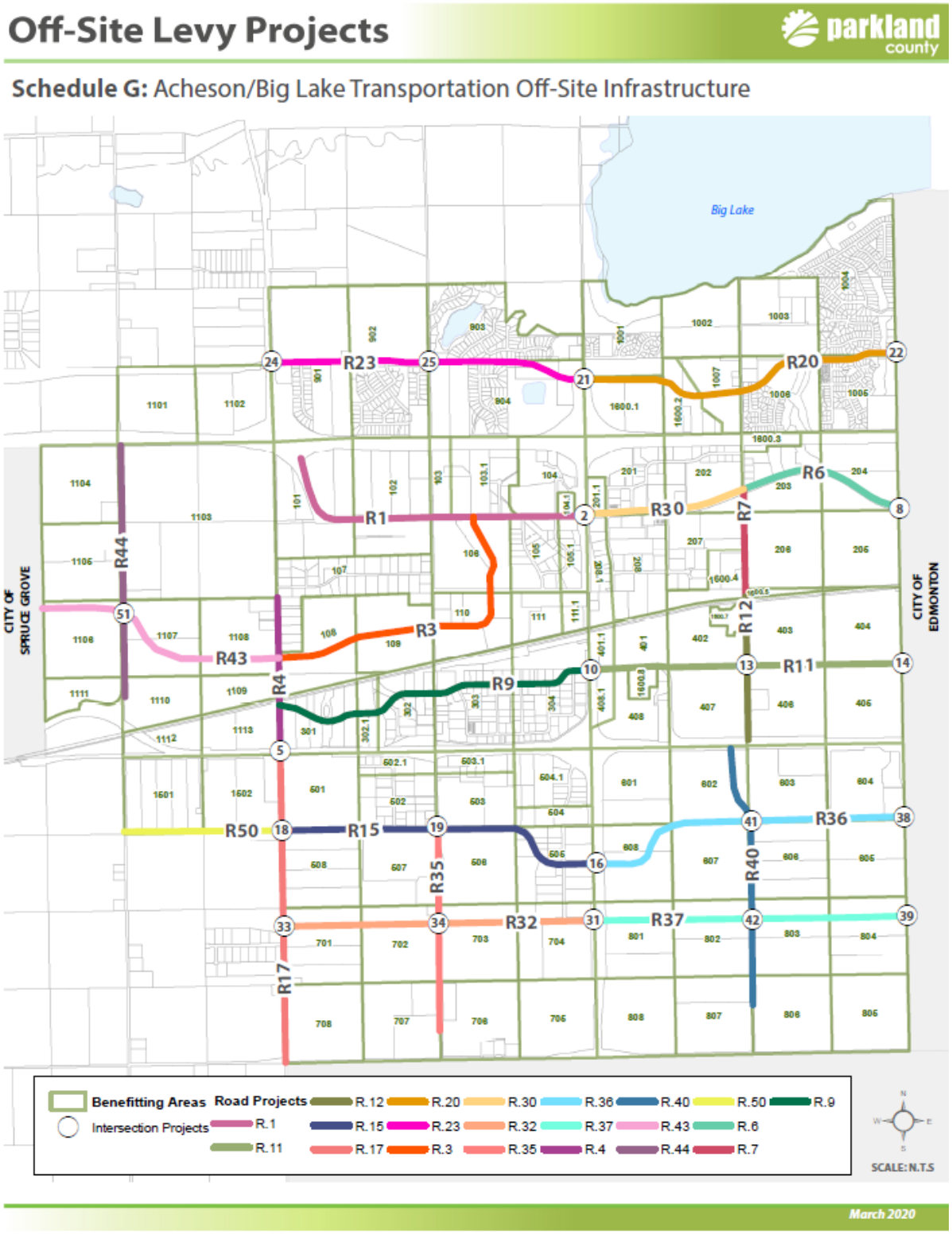
Summary of Transportation Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Cost
1	114 Avenue: Hwy 44 to Hwy 60 (Acheson Zone 1)	$ 4,345,151	$ -	$ 4,025,000	$ 8,370,151
2	114 Avenue / Hwy 60 Intersection (Acheson Zone 1 & 2)	$ 4,904,718	$ -	$ 80,000	$ 4,984,718
3	Zone 1 Collector Road: 114 Avenue to Spruce Valley Road	$ -	$ -	$ 3,787,813	$ 3,787,813
4	Spruce Valley Road: Hwy 16A to Osborne Acres (Acheson Zone 1)	$ -	$ -	$ 8,064,375	$ 8,064,375
5	Spruce Valley Road / Hwy 16A Intersection (Acheson Zone 1 & 5)	$ -	$ -	$ 1,596,631	$ 1,596,631
6	114 Avenue: Bevington Road to 231 Street (Acheson Zone 2)	$ 2,106,477	$ -	$ 1,491,963	$ 3,598,440
7	Bevington Road: 114 Avenue to CN Crossing (Acheson Zone 2)	$ -	$ -	$ 2,024,719	$ 2,024,719
8	114 Avenue / 231 Street Intersection (Acheson Zone 2 & Winterburn)	$ -	$ -	$ 1,078,125	$ 1,078,125
9	Acheson Road: Spruce Valley Road to Hwy 60 (Acheson Zone 3)	$ -	$ -	$ 934,375	$ 934,375
10	Acheson Road / Hwy 60 Intersection (Acheson Zone 3 & 4)	$ -	$ -	$ 3,593,750	$ 3,593,750
11	Acheson Road: Hwy 60 to 231 Street (Acheson Zone 4 & Winterburn)	$ -	$ -	$ 7,130,000	$ 7,130,000
12	Bevington Road: CN Crossing to Hwy 16A (Acheson Zone 4)	$ -	$ -	$ 3,342,188	$ 3,342,188
13	Acheson Road / Bevington Road Intesection (Acheson Zone 4)	$ -	$ -	$ 1,078,125	$ 1,078,125
14	Acheson Road / 231 Street Intersection (Acheson Zone 4 & Winturburn)	$ -	$ -	$ 1,078,125	$ 1,078,125
15	96 Avenue: Hwy 60 to Spruce Valley Road (Acheson Zone 5)	$ 4,585,639	$ -	$ 6,145,298	$ 10,730,937
16	96 Avenue / Hwy 60 Intersection (Acheson Zone 5 & 6)	$ 3,512,106	$ -	$ -	$ 3,512,106
17	Spruce Valley Road: Hwy 16A to Hwy 628 (Acheson Zone 5 & 7)	$ -	$ -	$ 3,881,250	$ 3,881,250
18	Spruce Valley Road / 96 Avenue Intersection (Acheson Zone 5)	$ -	$ -	$ 986,125	$ 986,125
19	96 Avenue / 279 Street Intersection (Acheson Zone 5)	$ -	$ -	$ 503,125	$ 503,125
20	Meridian Ave - Hwy 60 to 231 Street (Big Lake East)	$ 687,393	$ -	$ 4,143,326	$ 4,830,719
21	Meridian Ave / Hwy 60 Intersection (Big Lake East)	$ -	$ -	$ 1,246,744	$ 1,246,744
22	Meridian Ave / 231 Street Intersection (Big Lake East)	$ -	$ -	$ 589,734	$ 589,734
23	Meridian Ave: Hwy 44 to Hwy 60 (Big Lake West)	$ 1,538,353	$ -	$ 2,241,063	$ 3,779,416
24	Meridian Ave / Hwy 44 Intersection (Big Lake West)	$ -	$ -	$ 1,924,453	$ 1,924,453
25	Meridian Ave / RR264 Intersection (Big Lake West)	$ -	$ -	$ 756,844	$ 756,844
26	Hwy 779 / New Service Road Intersection (5th Meridian ASP)	$ -	$ -	$ 27,227,616	$ 27,227,616
27	Hwy 779 / Proposed Road (5th Meridian ASP)	$ -	$ -	$ 5,415,998	$ 5,415,998
28	Golf Course Road (5th Meridian ASP)	$ -	$ -	$ 3,342,188	$ 3,342,188
29	New Proposed Road (5th Meridian ASP)	$ -	$ -	$ 2,673,750	$ 2,673,750
30	114 Avenue: Hwy 60 to Bevington Road (Acheson Zone 2)	$ -	$ -	$ 3,655,102	$ 3,655,102
31	92 Avenue / Hwy 60 Intersection (Acheson Zone 7 & 8)	$ 4,100,000	$ -	$ -	$ 4,100,000
32	92 Avenue: Highway 60 to Spruce Valley Road (Acheson Zone 7)	$ 4,441,555	$ -	$ 15,148,099	$ 19,589,654
33	92 Avenue / Spruce Valley Road Intersection (Acheson Zone 7)	$ -	$ -	$ 986,125	$ 986,125
34	92 Avenue / 279 Street Intersection (Acheson Zone 7)	$ -	$ -	$ 503,125	$ 503,125
35	279 Street: Hwy 628 to 96 Avenue (Acheson Zone 5 & 7)	$ -	$ -	$ 10,608,750	$ 10,608,750
36	96th Avenue: Hwy 60 to 231st Street (Zone 6)	$ -	$ -	$ 7,575,625	$ 7,575,625
37	92nd Avenue: Hwy 60 to 231st Street (Zone 8)	$ -	$ -	$ 7,263,688	$ 7,263,688
38	96th Avenue & 231st Street Intersection (Zone 6)	$ -	$ -	$ 1,078,125	$ 1,078,125
39	92nd Avenue & 231st Street Intersection (Zone 8)	$ -	$ -	$ 1,078,125	$ 1,078,125
40	Pinchbeck Rd: Hwy 16A to Hwy 628 (Zone 6 & 8)	$ -	$ -	$ 6,060,500	$ 6,060,500
41	96th Ave & Pinchbeck Rd Intersection (Zone 6)	$ -	$ -	$ 503,125	$ 503,125
42	92nd Ave & Pinchbeck Rd Intersection (Zone 8)	$ -	$ -	$ 503,125	$ 503,125
43	Collector Rd: Spruce Valley Rd to Hwy 44 (West Acheson Area 11)	$ -	$ -	$ 5,181,469	$ 5,181,469
44	Atim Rd: Hwy 16 to Hwy 16A (West Acheson Area 11)	$ -	$ -	$ 4,331,188	$ 4,331,188
45	Acheson Traffic Impact Assessment Update - 2019	$ 130,353	$ -	$ -	$ 130,353
46	Acheson Traffic Impact Assessment Update - 2024	$ -	$ -	$ 71,875	$ 71,875
47	Acheson Traffic Impact Assessment Update - 2029	$ -	$ -	$ 71,875	$ 71,875
48	Acheson Traffic Impact Assessment Update - 2034	$ -	$ -	$ 71,875	$ 71,875
49	Acheson Traffic Impact Assessment Update - 2039	$ -	$ -	$ 71,875	$ 71,875
50	96th Ave: Spruce Valley Rd to Sandhills Rd (Acheson Zone 5 West)	$ -	$ -	$ 3,654,125	$ 3,654,125
51	Collector Rd & Atim Rd Intersection (West Acheson Area 11)	$ -	$ -	$ 503,125	$ 503,125
		$ 30,351,745	**$ -**	**$ 169,303,620**	**$ 199,655,365**

*Costs are based on 2019 estimates and include engineering costs and contingencies.

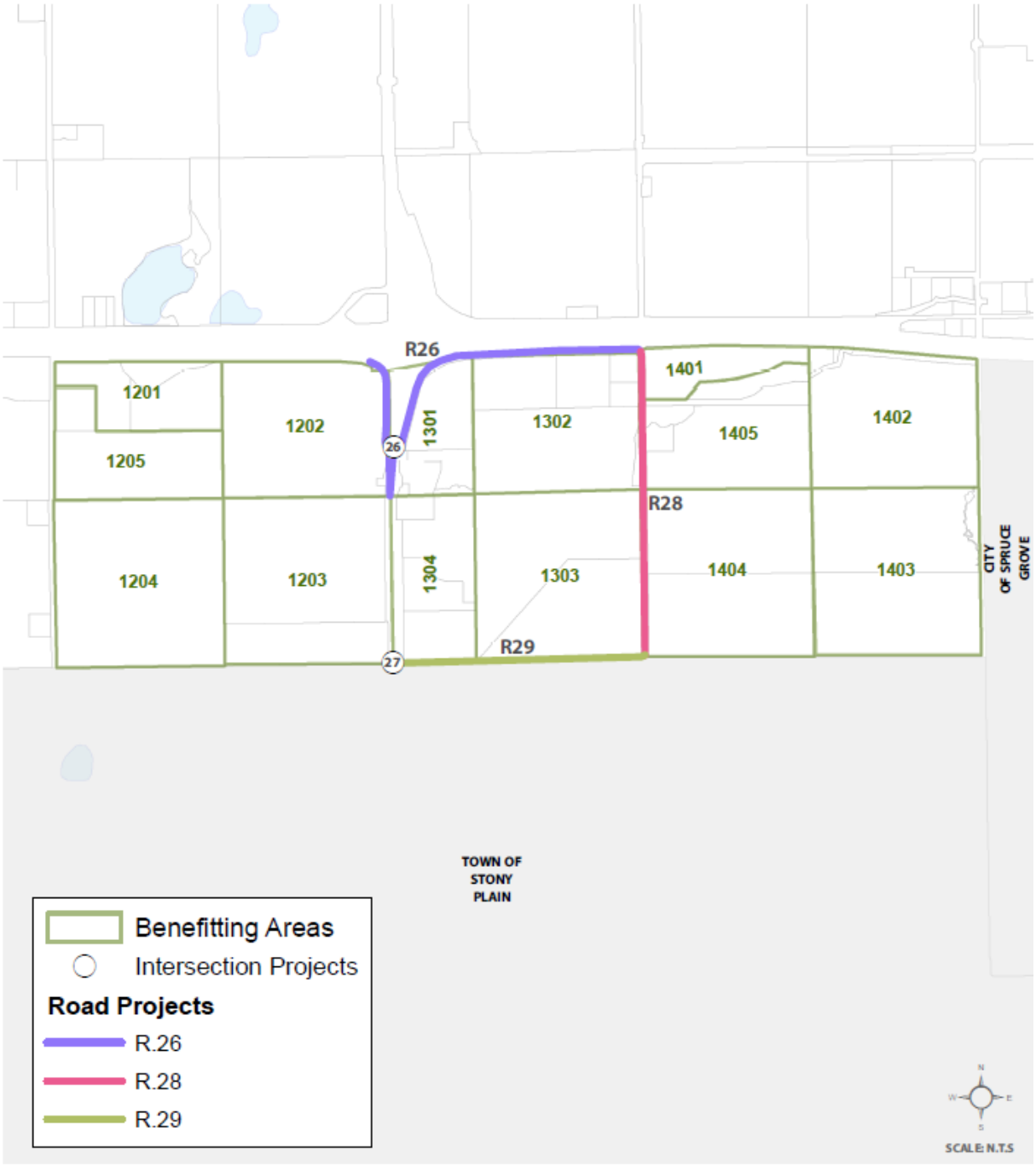
A map showing the location of the transportation offsite infrastructure is shown below.

Location of Transportation Offsite Infrastructure



Off-Site Levy Projects

Schedule H: Fifth Meridian Transportation Off-site Infrastructure



March 2020

D2. Transportation Offsite Infrastructure Grants & Contributions to Date

The *MGA* enables the County 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). Parkland County has/will receive **$7.95 million** in special grants and contributions for transportation offsite levy infrastructure as shown in the table below (note, if the County 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 project estimated cost is **$191.70 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	114 Avenue: Hwy 44 to Hwy 60 (Acheson Zone 1)	$ 8,370,151	$ -	$ 241,226	$ -	$ 8,128,925
2	114 Avenue / Hwy 60 Intersection (Acheson Zone 1 & 2)	$ 4,984,718	$ -	$ -	$ -	$ 4,984,718
3	Zone 1 Collector Road: 114 Avenue to Spruce Valley Road	$ 3,787,813	$ -	$ -	$ -	$ 3,787,813
4	Spruce Valley Road: Hwy 16A to Osborne Acres (Acheson Zone 1)	$ 8,064,375	$ -	$ -	$ -	$ 8,064,375
5	Spruce Valley Road / Hwy 16A Intersection (Acheson Zone 1 & 5)	$ 1,596,631	$ -	$ -	$ -	$ 1,596,631
6	114 Avenue: Bevington Road to 231 Street (Acheson Zone 2)	$ 3,598,440	$ -	$ 1,462,417	$ -	$ 2,136,023
7	Bevington Road: 114 Avenue to CN Crossing (Acheson Zone 2)	$ 2,024,719	$ -	$ -	$ -	$ 2,024,719
8	114 Avenue / 231 Street Intersection (Acheson Zone 2 & Winterburn)	$ 1,078,125	$ -	$ -	$ -	$ 1,078,125
9	Acheson Road: Spruce Valley Road to Hwy 60 (Acheson Zone 3)	$ 934,375	$ -	$ -	$ -	$ 934,375
10	Acheson Road / Hwy 60 Intersection (Acheson Zone 3 & 4)	$ 3,593,750	$ -	$ -	$ -	$ 3,593,750
11	Acheson Road: Hwy 60 to 231 Street (Acheson Zone 4 & Winterburn)	$ 7,130,000	$ -	$ -	$ -	$ 7,130,000
12	Bevington Road: CN Crossing to Hwy 16A (Acheson Zone 4)	$ 3,342,188	$ -	$ -	$ -	$ 3,342,188
13	Acheson Road / Bevington Road Intesection (Acheson Zone 4)	$ 1,078,125	$ -	$ -	$ -	$ 1,078,125
14	Acheson Road / 231 Street Intersection (Acheson Zone 4 & Winturburn)	$ 1,078,125	$ -	$ -	$ -	$ 1,078,125
15	96 Avenue: Hwy 60 to Spruce Valley Road (Acheson Zone 5)	$ 10,730,937	$ -	$ 1,497,581	$ -	$ 9,233,356
16	96 Avenue / Hwy 60 Intersection (Acheson Zone 5 & 6)	$ 3,512,106	$ -	$ 1,005,638	$ -	$ 2,506,467
17	Spruce Valley Road: Hwy 16A to Hwy 628 (Acheson Zone 5 & 7)	$ 3,881,250	$ -	$ -	$ -	$ 3,881,250
18	Spruce Valley Road / 96 Avenue Intersection (Acheson Zone 5)	$ 986,125	$ -	$ -	$ -	$ 986,125
19	96 Avenue / 279 Street Intersection (Acheson Zone 5)	$ 503,125	$ -	$ -	$ -	$ 503,125
20	Meridian Ave - Hwy 60 to 231 Street (Big Lake East)	$ 4,830,719	$ -	$ 107,034	$ -	$ 4,723,684
21	Meridian Ave / Hwy 60 Intersection (Big Lake East)	$ 1,246,744	$ -	$ -	$ -	$ 1,246,744
22	Meridian Ave / 231 Street Intersection (Big Lake East)	$ 589,734	$ -	$ -	$ -	$ 589,734
23	Meridian Ave: Hwy 44 to Hwy 60 (Big Lake West)	$ 3,779,416	$ -	$ -	$ -	$ 3,779,416
24	Meridian Ave / Hwy 44 Intersection (Big Lake West)	$ 1,924,453	$ -	$ -	$ -	$ 1,924,453
25	Meridian Ave / RR264 Intersection (Big Lake West)	$ 756,844	$ -	$ -	$ -	$ 756,844
26	Hwy 779 / New Service Road Intersection (5th Meridian ASP)	$ 27,227,616	$ -	$ -	$ -	$ 27,227,616
27	Hwy 779 / Proposed Road (5th Meridian ASP)	$ 5,415,998	$ -	$ -	$ -	$ 5,415,998
28	Golf Course Road (5th Meridian ASP)	$ 3,342,188	$ -	$ -	$ -	$ 3,342,188
29	New Proposed Road (5th Meridian ASP)	$ 2,673,750	$ -	$ -	$ -	$ 2,673,750
30	114 Avenue: Hwy 60 to Bevington Road (Acheson Zone 2)	$ 3,655,102	$ -	$ 140,090	$ -	$ 3,515,012
31	92 Avenue / Hwy 60 Intersection (Acheson Zone 7 & 8)	$ 4,100,000	$ 3,500,000	$ -	$ -	$ 600,000
32	92 Avenue: Highway 60 to Spruce Valley Road (Acheson Zone 7)	$ 19,589,654	$ -	$ -	$ -	$ 19,589,654
33	92 Avenue / Spruce Valley Road Intersection (Acheson Zone 7)	$ 986,125	$ -	$ -	$ -	$ 986,125
34	92 Avenue / 279 Street Intersection (Acheson Zone 7)	$ 503,125	$ -	$ -	$ -	$ 503,125
35	279 Street: Hwy 628 to 96 Avenue (Acheson Zone 5 & 7)	$ 10,608,750	$ -	$ -	$ -	$ 10,608,750
36	96th Avenue: Hwy 60 to 231st Street (Zone 6)	$ 7,575,625	$ -	$ -	$ -	$ 7,575,625
37	92nd Avenue: Hwy 60 to 231st Street (Zone 8)	$ 7,263,688	$ -	$ -	$ -	$ 7,263,688
38	96th Avenue & 231st Street Intersection (Zone 6)	$ 1,078,125	$ -	$ -	$ -	$ 1,078,125
39	92nd Avenue & 231st Street Intersection (Zone 8)	$ 1,078,125	$ -	$ -	$ -	$ 1,078,125
40	Pinchbeck Rd: Hwy 16A to Hwy 628 (Zone 6 & 8)	$ 6,060,500	$ -	$ -	$ -	$ 6,060,500
41	96th Ave & Pinchbeck Rd Intersection (Zone 6)	$ 503,125	$ -	$ -	$ -	$ 503,125
42	92nd Ave & Pinchbeck Rd Intersection (Zone 8)	$ 503,125	$ -	$ -	$ -	$ 503,125
43	Collector Rd: Spruce Valley Rd to Hwy 44 (West Acheson Area 11)	$ 5,181,469	$ -	$ -	$ -	$ 5,181,469
44	Atim Rd: Hwy 16 to Hwy 16A (West Acheson Area 11)	$ 4,331,188	$ -	$ -	$ -	$ 4,331,188
45	Acheson Traffic Impact Assessment Update - 2019	$ 130,353	$ -	$ -	$ -	$ 130,353
46	Acheson Traffic Impact Assessment Update - 2024	$ 71,875	$ -	$ -	$ -	$ 71,875
47	Acheson Traffic Impact Assessment Update - 2029	$ 71,875	$ -	$ -	$ -	$ 71,875
48	Acheson Traffic Impact Assessment Update - 2034	$ 71,875	$ -	$ -	$ -	$ 71,875
49	Acheson Traffic Impact Assessment Update - 2039	$ 71,875	$ -	$ -	$ -	$ 71,875
50	96th Ave: Spruce Valley Rd to Sandhills Rd (Acheson Zone 5 West)	$ 3,654,125	$ -	$ -	$ -	$ 3,654,125
51	Collector Rd & Atim Rd Intersection (West Acheson Area 11)	$ 503,125	$ -	$ -	$ -	$ 503,125
		$ 199,655,365	**$ 3,500,000**	**$ 4,453,986**	**$ -**	**$ 191,701,379**

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 Section D4). The County 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 County's annual rate/bylaw updates.

Transportation Infrastructure Staging

Item	Project Description	Construction Start Year
1	114 Avenue: Hwy 44 to Hwy 60 (Acheson Zone 1)	2035
2	114 Avenue / Hwy 60 Intersection (Acheson Zone 1 & 2)	2017
3	Zone 1 Collector Road: 114 Avenue to Spruce Valley Road	2020
4	Spruce Valley Road: Hwy 16A to Osborne Acres (Acheson Zone 1)	2023
5	Spruce Valley Road / Hwy 16A Intersection (Acheson Zone 1 & 5)	2023
6	114 Avenue: Bevington Road to 231 Street (Acheson Zone 2)	2020
7	Bevington Road: 114 Avenue to CN Crossing (Acheson Zone 2)	2020
8	114 Avenue / 231 Street Intersection (Acheson Zone 2 & Winterburn)	2020
9	Acheson Road: Spruce Valley Road to Hwy 60 (Acheson Zone 3)	2023
10	Acheson Road / Hwy 60 Intersection (Acheson Zone 3 & 4)	2022
11	Acheson Road: Hwy 60 to 231 Street (Acheson Zone 4 & Winterburn)	2023
12	Bevington Road: CN Crossing to Hwy 16A (Acheson Zone 4)	2025
13	Acheson Road / Bevington Road Intesection (Acheson Zone 4)	2028
14	Acheson Road / 231 Street Intersection (Acheson Zone 4 & Winturburn)	2020
15	96 Avenue: Hwy 60 to Spruce Valley Road (Acheson Zone 5)	2014
16	96 Avenue / Hwy 60 Intersection (Acheson Zone 5 & 6)	2014
17	Spruce Valley Road: Hwy 16A to Hwy 628 (Acheson Zone 5 & 7)	2033
18	Spruce Valley Road / 96 Avenue Intersection (Acheson Zone 5)	2023
19	96 Avenue / 279 Street Intersection (Acheson Zone 5)	2023
20	Meridian Ave - Hwy 60 to 231 Street (Big Lake East)	2029
21	Meridian Ave / Hwy 60 Intersection (Big Lake East)	2029
22	Meridian Ave / 231 Street Intersection (Big Lake East)	2026
23	Meridian Ave: Hwy 44 to Hwy 60 (Big Lake West)	2027
24	Meridian Ave / Hwy 44 Intersection (Big Lake West)	2030
25	Meridian Ave / RR264 Intersection (Big Lake West)	2027
26	Hwy 779 / New Service Road Intersection (5th Meridian ASP)	2036
27	Hwy 779 / Proposed Road (5th Meridian ASP)	2042
28	Golf Course Road (5th Meridian ASP)	2043
29	New Proposed Road (5th Meridian ASP)	2043
30	114 Avenue: Hwy 60 to Bevington Road (Acheson Zone 2)	2020
31	92 Avenue / Hwy 60 Intersection (Acheson Zone 7 & 8)	2019
32	92 Avenue: Highway 60 to Spruce Valley Road (Acheson Zone 7)	2019
33	92 Avenue / Spruce Valley Road Intersection (Acheson Zone 7)	2044
34	92 Avenue / 279 Street Intersection (Acheson Zone 7)	2036
35	279 Street: 92 Avenue to 96 Avenue (Acheson Zone 5 & 7)	2024
36	96th Avenue: Hwy 60 to 231st Street (Zone 6)	2027
37	92nd Avenue: Hwy 60 to 231st Street (Zone 8)	2035
38	96th Avenue & 231st Street Intersection (Zone 6)	2044
39	92nd Avenue & 231st Street Intersection (Zone 8)	2044
40	Pinchbeck Rd: Hwy 16A to Hwy 628 (Zone 6 & 8)	2044
41	96th Ave & Pinchbeck Rd Intersection (Zone 6)	2027
42	92nd Ave & Pinchbeck Rd Intersection (Zone 8)	2044
43	Collector Rd: Spruce Valley Rd to Hwy 44 (West Acheson Area 11)	2044
44	Atim Rd: Hwy 16 to Hwy 16A (West Acheson Area 11)	2044
45	Acheson Traffic Impact Assessment Update - 2019	2018
46	Acheson Traffic Impact Assessment Update - 2024	2024
47	Acheson Traffic Impact Assessment Update - 2029	2029
48	Acheson Traffic Impact Assessment Update - 2034	2034
49	Acheson Traffic Impact Assessment Update - 2039	2039
50	96th Ave: Spruce Valley Rd to Sandhills Rd (Acheson Zone 5 West)	2043
51	Collector Rd & Atim Rd Intersection (West Acheson Area 11)	2044

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

**Project costs were inflated by 2% per annum for the first 3 years, and 3% per annum thereafter to the year of construction.

***A blank year (if any) represents a project which has been combined with another project, costs have been removed from the model, or project has been completed.

D4. Transportation Offsite Infrastructure Benefiting Parties

The transportation offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by the County. Four potential benefiting parties were identified including:

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

The table below outlines the allocation of transportation offsite levy infrastructure costs to benefiting parties. Project allocations were determined by County 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	114 Avenue: Hwy 44 to Hwy 60 (Acheson Zone 1)	$ 8,128,925			60.0%	40.0%
2	114 Avenue / Hwy 60 Intersection (Acheson Zone 1 & 2)	$ 4,984,718			0.0%	100.0%
3	Zone 1 Collector Road: 114 Avenue to Spruce Valley Road	$ 3,787,813			0.0%	100.0%
4	Spruce Valley Road: Hwy 16A to Osborne Acres (Acheson Zone 1)	$ 8,064,375			12.0%	88.0%
5	Spruce Valley Road / Hwy 16A Intersection (Acheson Zone 1 & 5)	$ 1,596,631			12.0%	88.0%
6	114 Avenue: Bevington Road to 231 Street (Acheson Zone 2)	$ 2,136,023			0.0%	100.0%
7	Bevington Road: 114 Avenue to CN Crossing (Acheson Zone 2)	$ 2,024,719			0.0%	100.0%
8	114 Avenue / 231 Street Intersection (Acheson Zone 2 & Winterburn)	$ 1,078,125			0.0%	100.0%
9	Acheson Road: Spruce Valley Road to Hwy 60 (Acheson Zone 3)	$ 934,375			12.0%	88.0%
10	Acheson Road / Hwy 60 Intersection (Acheson Zone 3 & 4)	$ 3,593,750			8.0%	92.0%
11	Acheson Road: Hwy 60 to 231 Street (Acheson Zone 4 & Winterburn)	$ 7,130,000			12.0%	88.0%
12	Bevington Road: CN Crossing to Hwy 16A (Acheson Zone 4)	$ 3,342,188			20.0%	80.0%
13	Acheson Road / Bevington Road Intesection (Acheson Zone 4)	$ 1,078,125			32.0%	68.0%
14	Acheson Road / 231 Street Intersection (Acheson Zone 4 & Winturburn)	$ 1,078,125			0.0%	100.0%
15	96 Avenue: Hwy 60 to Spruce Valley Road (Acheson Zone 5)	$ 9,233,356			0.0%	100.0%
16	96 Avenue / Hwy 60 Intersection (Acheson Zone 5 & 6)	$ 2,506,467			0.0%	100.0%
17	Spruce Valley Road: Hwy 16A to Hwy 628 (Acheson Zone 5 & 7)	$ 3,881,250			52.0%	48.0%
18	Spruce Valley Road / 96 Avenue Intersection (Acheson Zone 5)	$ 986,125			12.0%	88.0%
19	96 Avenue / 279 Street Intersection (Acheson Zone 5)	$ 503,125			12.0%	88.0%
20	Meridian Ave - Hwy 60 to 231 Street (Big Lake East)	$ 4,723,684			36.0%	64.0%
21	Meridian Ave / Hwy 60 Intersection (Big Lake East)	$ 1,246,744			36.0%	64.0%
22	Meridian Ave / 231 Street Intersection (Big Lake East)	$ 589,734			24.0%	76.0%
23	Meridian Ave: Hwy 44 to Hwy 60 (Big Lake West)	$ 3,779,416			28.0%	72.0%
24	Meridian Ave / Hwy 44 Intersection (Big Lake West)	$ 1,924,453			40.0%	60.0%
25	Meridian Ave / RR264 Intersection (Big Lake West)	$ 756,844			28.0%	72.0%
26	Hwy 779 / New Service Road Intersection (5th Meridian ASP)	$ 27,227,616			64.0%	36.0%
27	Hwy 779 / Proposed Road (5th Meridian ASP)	$ 5,415,998			88.0%	12.0%
28	Golf Course Road (5th Meridian ASP)	$ 3,342,188			92.0%	8.0%
29	New Proposed Road (5th Meridian ASP)	$ 2,673,750			92.0%	8.0%
30	114 Avenue: Hwy 60 to Bevington Road (Acheson Zone 2)	$ 3,515,012			0.0%	100.0%
31	92 Avenue / Hwy 60 Intersection (Acheson Zone 7 & 8)	$ 600,000			0.0%	100.0%
32	92 Avenue: Highway 60 to Spruce Valley Road (Acheson Zone 7)	$ 19,589,654			0.0%	100.0%
33	92 Avenue / Spruce Valley Road Intersection (Acheson Zone 7)	$ 986,125			96.0%	4.0%
34	92 Avenue / 279 Street Intersection (Acheson Zone 7)	$ 503,125			64.0%	36.0%
35	279 Street: Hwy 628 to 96 Avenue (Acheson Zone 5 & 7)	$ 10,608,750			16.0%	84.0%
36	96th Avenue: Hwy 60 to 231st Street (Zone 6)	$ 7,575,625			28.0%	72.0%
37	92nd Avenue: Hwy 60 to 231st Street (Zone 8)	$ 7,263,688			60.0%	40.0%
38	96th Avenue & 231st Street Intersection (Zone 6)	$ 1,078,125			96.0%	4.0%
39	92nd Avenue & 231st Street Intersection (Zone 8)	$ 1,078,125			96.0%	4.0%
40	Pinchbeck Rd: Hwy 16A to Hwy 628 (Zone 6 & 8)	$ 6,060,500			96.0%	4.0%
41	96th Ave & Pinchbeck Rd Intersection (Zone 6)	$ 503,125			28.0%	72.0%
42	92nd Ave & Pinchbeck Rd Intersection (Zone 8)	$ 503,125			96.0%	4.0%
43	Collector Rd: Spruce Valley Rd to Hwy 44 (West Acheson Area 11)	$ 5,181,469			96.0%	4.0%
44	Atim Rd: Hwy 16 to Hwy 16A (West Acheson Area 11)	$ 4,331,188			96.0%	4.0%
45	Acheson Traffic Impact Assessment Update - 2019	$ 130,353			0.0%	100.0%
46	Acheson Traffic Impact Assessment Update - 2024	$ 71,875			16.0%	84.0%
47	Acheson Traffic Impact Assessment Update - 2029	$ 71,875			36.0%	64.0%
48	Acheson Traffic Impact Assessment Update - 2034	$ 71,875			56.0%	44.0%
49	Acheson Traffic Impact Assessment Update - 2039	$ 71,875			76.0%	24.0%
50	96th Ave: Spruce Valley Rd to Sandhills Rd (Acheson Zone 5 West)	$ 3,654,125			92.0%	8.0%
51	Collector Rd & Atim Rd Intersection (West Acheson Area 11)	$ 503,125			96.0%	4.0%
		$ 191,701,379				

**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. In future, as the 25-year review period moves further out these additional developer costs will gradually be included in future rate calculations.

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 **$118.08 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 County has collected **$15.12 million** in transportation offsite levies to date. This results in an adjusted offsite levy cost of approximately **$102.96 million**.

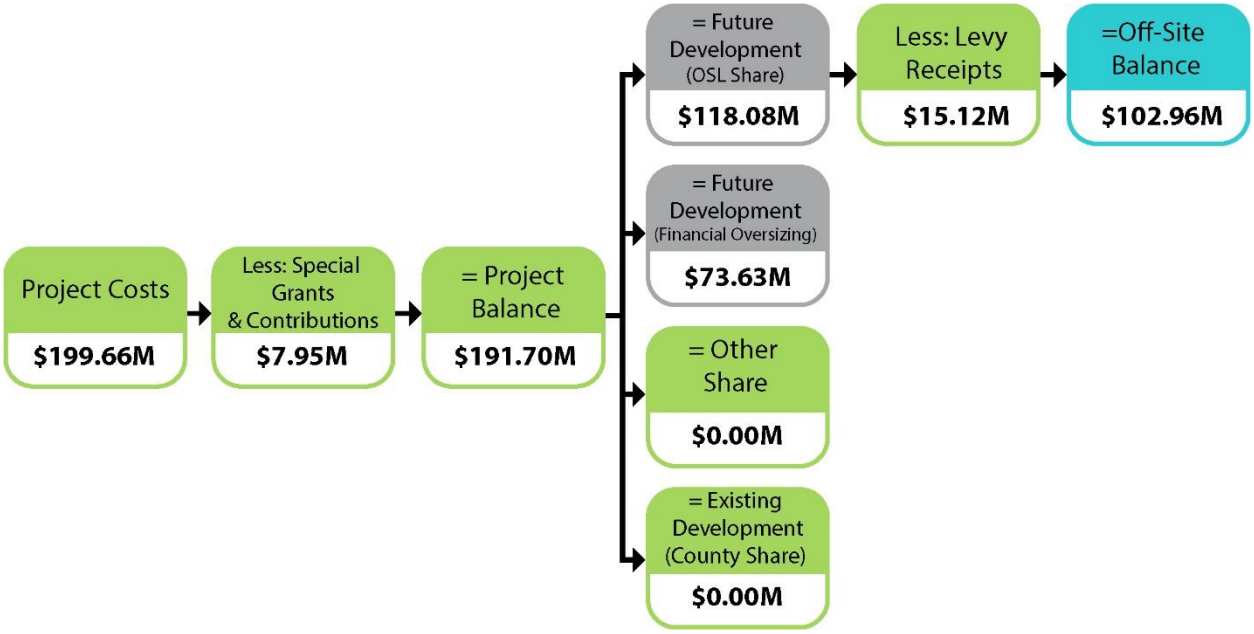
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected Under Old Bylaw to Dec 31 2013	Offsite Levy Funds Collected Starting Jan 1, 2013	Adjusted Developer (Levy) Cost
1	114 Avenue: Hwy 44 to Hwy 60 (Acheson Zone 1)	$ 3,251,570	$ 1,285,258	$ 422,301	$ 1,544,011
2	114 Avenue / Hwy 60 Intersection (Acheson Zone 1 & 2)	$ 4,984,718	$ 537,406	$ 498,934	$ 3,948,378
3	Zone 1 Collector Road: 114 Avenue to Spruce Valley Road	$ 3,787,813	$ 553,547	$ 216,274	$ 3,017,991
4	Spruce Valley Road: Hwy 16A to Osborne Acres (Acheson Zone 1)	$ 7,096,650	$ 156,611	$ 85,542	$ 6,854,498
5	Spruce Valley Road / Hwy 16A Intersection (Acheson Zone 1 & 5)	$ 1,405,036	$ 183,660	$ 100,227	$ 1,121,148
6	114 Avenue: Bevington Road to 231 Street (Acheson Zone 2)	$ 2,136,023	$ 905,954	$ 351,683	$ 878,386
7	Bevington Road: 114 Avenue to CN Crossing (Acheson Zone 2)	$ 2,024,719	$ 342,307	$ 92,502	$ 1,589,910
8	114 Avenue / 231 Street Intersection (Acheson Zone 2 & Winterburn)	$ 1,078,125	$ 182,272	$ 35,831	$ 860,021
9	Acheson Road: Spruce Valley Road to Hwy 60 (Acheson Zone 3)	$ 822,250	$ -	$ -	$ 822,250
10	Acheson Road / Hwy 60 Intersection (Acheson Zone 3 & 4)	$ 3,306,250	$ 4,154	$ -	$ 3,302,096
11	Acheson Road: Hwy 60 to 231 Street (Acheson Zone 4 & Winterburn)	$ 6,274,400	$ 8,861	$ -	$ 6,265,539
12	Bevington Road: CN Crossing to Hwy 16A (Acheson Zone 4)	$ 2,673,750	$ 4,154	$ -	$ 2,669,596
13	Acheson Road / Bevington Road Intesection (Acheson Zone 4)	$ 733,125	$ 1,340	$ -	$ 731,785
14	Acheson Road / 231 Street Intersection (Acheson Zone 4 & Winturburn)	$ 1,078,125	$ 1,340	$ -	$ 1,076,785
15	96 Avenue: Hwy 60 to Spruce Valley Road (Acheson Zone 5)	$ 9,233,356	$ 2,150,339	$ 1,294,194	$ 5,788,824
16	96 Avenue / Hwy 60 Intersection (Acheson Zone 5 & 6)	$ 2,506,467	$ 205,844	$ 234,207	$ 2,066,416
17	Spruce Valley Road: Hwy 16A to Hwy 628 (Acheson Zone 5 & 7)	$ 1,863,000	$ 91,434	$ (24,595)	$ 1,796,161
18	Spruce Valley Road / 96 Avenue Intersection (Acheson Zone 5)	$ 867,790	$ 94,080	$ (9,605)	$ 783,315
19	96 Avenue / 279 Street Intersection (Acheson Zone 5)	$ 442,750	$ 48,000	$ 19,181	$ 375,569
20	Meridian Ave - Hwy 60 to 231 Street (Big Lake East)	$ 3,023,158	$ 395,455	$ 150,295	$ 2,477,408
21	Meridian Ave / Hwy 60 Intersection (Big Lake East)	$ 797,916	$ 72,629	$ 21,849	$ 703,438
22	Meridian Ave / 231 Street Intersection (Big Lake East)	$ 448,198	$ -	$ 18,995	$ 429,203
23	Meridian Ave: Hwy 44 to Hwy 60 (Big Lake West)	$ 2,721,179	$ 300,937	$ -	$ 2,420,243
24	Meridian Ave / Hwy 44 Intersection (Big Lake West)	$ 1,154,672	$ 522,346	$ -	$ 632,326
25	Meridian Ave / RR264 Intersection (Big Lake West)	$ 544,928	$ 94,297	$ -	$ 450,630
26	Hwy 779 / New Service Road Intersection (5th Meridian ASP)	$ 9,801,942	$ -	$ -	$ 9,801,942
27	Hwy 779 / Proposed Road (5th Meridian ASP)	$ 649,920	$ -	$ -	$ 649,920
28	Golf Course Road (5th Meridian ASP)	$ 267,375	$ -	$ -	$ 267,375
29	New Proposed Road (5th Meridian ASP)	$ 213,900	$ -	$ -	$ 213,900
30	114 Avenue: Hwy 60 to Bevington Road (Acheson Zone 2)	$ 3,515,012	$ -	$ 131,771	$ 3,383,240
31	92 Avenue / Hwy 60 Intersection (Acheson Zone 7 & 8)	$ 600,000	$ -	$ 964,559	$ (364,559)
32	92 Avenue: Highway 60 to Spruce Valley Road (Acheson Zone 7)	$ 19,589,654	$ -	$ 2,067,807	$ 17,521,847
33	92 Avenue / Spruce Valley Road Intersection (Acheson Zone 7)	$ 39,445	$ -	$ -	$ 39,445
34	92 Avenue / 279 Street Intersection (Acheson Zone 7)	$ 181,125	$ -	$ 155,751	$ 25,374
35	279 Street: Hwy 628 to 96 Avenue (Acheson Zone 5 & 7)	$ 8,911,350	$ -	$ 146,571	$ 8,764,779
36	96th Avenue: Hwy 60 to 231st Street (Zone 6)	$ 5,454,450	$ -	$ -	$ 5,454,450
37	92nd Avenue: Hwy 60 to 231st Street (Zone 8)	$ 2,905,475	$ -	$ -	$ 2,905,475
38	96th Avenue & 231st Street Intersection (Zone 6)	$ 43,125	$ -	$ -	$ 43,125
39	92nd Avenue & 231st Street Intersection (Zone 8)	$ 43,125	$ -	$ -	$ 43,125
40	Pinchbeck Rd: Hwy 16A to Hwy 628 (Zone 6 & 8)	$ 242,420	$ -	$ -	$ 242,420
41	96th Ave & Pinchbeck Rd Intersection (Zone 6)	$ 362,250	$ -	$ -	$ 362,250
42	92nd Ave & Pinchbeck Rd Intersection (Zone 8)	$ 20,125	$ -	$ -	$ 20,125
43	Collector Rd: Spruce Valley Rd to Hwy 44 (West Acheson Area 11)	$ 207,259	$ -	$ -	$ 207,259
44	Atim Rd: Hwy 16 to Hwy 16A (West Acheson Area 11)	$ 173,248	$ -	$ -	$ 173,248
45	Acheson Traffic Impact Assessment Update - 2019	$ 130,353	$ -	$ 671	$ 129,682
46	Acheson Traffic Impact Assessment Update - 2024	$ 60,375	$ -	$ 452	$ 59,923
47	Acheson Traffic Impact Assessment Update - 2029	$ 46,000	$ -	$ 329	$ 45,671
48	Acheson Traffic Impact Assessment Update - 2034	$ 31,625	$ -	$ 206	$ 31,419
49	Acheson Traffic Impact Assessment Update - 2039	$ 17,250	$ -	$ 83	$ 17,167
50	96th Ave: Spruce Valley Rd to Sandhills Rd (Acheson Zone 5 West)	$ 292,330	$ -	$ -	$ 292,330
51	Collector Rd & Atim Rd Intersection (West Acheson Area 11)	$ 20,125	$ -	$ -	$ 20,125
		$ 118,075,223	**$ 8,142,226**	**$ 6,976,014**	**$ 102,956,983**

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 **$102.96 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 County staff. The lands anticipated to develop over the 25-years in each offsite levy benefitting area are used to determine rates.

Benefiting Areas for Transportation Offsite Infrastructure

Item	Developer Cost	101.0	102.0	103.0	103.1	104.0	104.1	105.0	105.1	106.0	107.0	108.0	109.0	110.0	111.0	111.1	201.0	201.1	202.0	203.0	204.0	205.0	206.0	207.0	208.0	208.1	301.0	302.0	302.1	303.0	304.0
1	$ 1,544,011	1	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	$ 3,948,378	1	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	$ 3,017,991	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															
4	$ 6,854,498	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	1	1	1
5	$ 1,121,148	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1											1	1	1	1	1
6	$ 878,386	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
7	$ 1,589,910																1	1	1	1	1	1	1	1	1	1					
8	$ 860,021																1	1	1	1	1	1	1	1	1	1					
9	$ 822,250																										1	1	1	1	1
10	$ 3,302,096																										1	1	1	1	1
11	$ 6,265,539																														
12	$ 2,669,596																														
13	$ 731,785																														
14	$ 1,076,785																														
15	$ 5,788,824																														
16	$ 2,066,416																														
17	$ 1,796,161																														
18	$ 783,315																														
19	$ 375,569																														
20	$ 2,477,408																														
21	$ 703,438																														
22	$ 429,203																														
23	$ 2,420,243																														
24	$ 632,326																														
25	$ 450,630																														
26	$ 9,801,942																														
27	$ 649,920																														
28	$ 267,375																														
29	$ 213,900																														
30	$ 3,383,240	1	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	$ (364,559)																														
32	$ 17,521,847																														
33	$ 39,445																														
34	$ 25,374																														
35	$ 8,764,779																														
36	$ 5,454,450																														
37	$ 2,905,475																														
38	$ 43,125																														
39	$ 43,125																														
40	$ 242,420																														
41	$ 362,250																														
42	$ 20,125																														
43	$ 207,259																														
44	$ 173,248																														
45	$ 129,682	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
46	$ 59,923	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
47	$ 45,671	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48	$ 31,419	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
49	$ 17,167	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	$ 292,330																														
51	$ 20,125																														
	$ 102,956,983																														

Item	Developer Cost	401.0	401.1	402.0	403.0	404.0	405.0	406.0	407.0	408.0	408.1	501.0	502.0	502.1	503.0	503.1	504.0	504.1	505.0	506.0	507.0	508.0	601.0	602.0	603.0	604.0	605.0	606.0	607.0	608.0
1	$ 1,544,011																													
2	$ 3,948,378																													
3	$ 3,017,991																													
4	$ 6,854,498																													
5	$ 1,121,148											1	1	1	1	1	1	1	1	1	1	1								
6	$ 878,386																													
7	$ 1,589,910																													
8	$ 860,021																													
9	$ 822,250																													
10	$ 3,302,096	1	1	1	1	1	1	1	1	1	1																			
11	$ 6,265,539	1	1	1	1	1	1	1	1	1	1																			
12	$ 2,669,596	1	1	1	1	1	1	1	1	1	1																			
13	$ 731,785	1	1	1	1	1	1	1	1	1	1																			
14	$ 1,076,785	1	1	1	1	1	1	1	1	1	1																			
15	$ 5,788,824											1	1	1	1	1	1	1	1	1	1	1								
16	$ 2,066,416											1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	$ 1,796,161											1	1	1	1	1	1	1	1	1	1	1								
18	$ 783,315											1	1	1	1	1	1	1	1	1	1	1								
19	$ 375,569											1	1	1	1	1	1	1	1	1	1	1								
20	$ 2,477,408																													
21	$ 703,438																													
22	$ 429,203																													
23	$ 2,420,243																													
24	$ 632,326																													
25	$ 450,630																													
26	$ 9,801,942																													
27	$ 649,920																													
28	$ 267,375																													
29	$ 213,900																													
30	$ 3,383,240																													
31	$ (364,559)																													
32	$ 17,521,847																													
33	$ 39,445																													
34	$ 25,374																													
35	$ 8,764,779											1	1	1	1	1	1	1	1	1	1	1								
36	$ 5,454,450																						1	1	1	1	1	1	1	1
37	$ 2,905,475																													
38	$ 43,125																						1	1	1	1	1	1	1	1
39	$ 43,125																													
40	$ 242,420																						1	1	1	1	1	1	1	1
41	$ 362,250																						1	1	1	1	1	1	1	1
42	$ 20,125																													
43	$ 207,259																													
44	$ 173,248																													
45	$ 129,682	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
46	$ 59,923	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
47	$ 45,671	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48	$ 31,419	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
49	$ 17,167	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	$ 292,330																													
51	$ 20,125																													
	$ 102,956,983																													

Item	Developer Cost	701.0	702.0	703.0	704.0	705.0	706.0	707.0	708.0	801.0	802.0	803.0	804.0	805.0	806.0	807.0	808.0	901.0	902.0	903.0	904.0	1001.0	1002.0	1003.0	1004.0	1005.0	1006.0	1007.0	1101.0	1102.0	1103.0	1104.0
1	$ 1,544,011																															
2	$ 3,948,378																															
3	$ 3,017,991																															
4	$ 6,854,498																														1	1
5	$ 1,121,148																														1	1
6	$ 878,386																															
7	$ 1,589,910																															
8	$ 860,021																															
9	$ 822,250																															
10	$ 3,302,096																															
11	$ 6,265,539																															
12	$ 2,669,596																															
13	$ 731,785																															
14	$ 1,076,785																															
15	$ 5,788,824																															
16	$ 2,066,416																															
17	$ 1,796,161	1	1	1	1	1	1	1	1																							
18	$ 783,315																															
19	$ 375,569																															
20	$ 2,477,408																					1	1	1	1	1	1	1				
21	$ 703,438																	1	1	1	1	1	1	1	1	1	1	1				
22	$ 429,203																					1	1	1	1	1	1	1				
23	$ 2,420,243																	1	1	1	1											
24	$ 632,326																	1	1	1	1								1	1		
25	$ 450,630																	1	1	1	1											
26	$ 9,801,942																															
27	$ 649,920																															
28	$ 267,375																															
29	$ 213,900																															
30	$ 3,383,240																															
31	$ (364,559)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															
32	$ 17,521,847	1	1	1	1	1	1	1	1																							
33	$ 39,445	1	1	1	1	1	1	1	1																							
34	$ 25,374	1	1	1	1	1	1	1	1																							
35	$ 8,764,779	1	1	1	1	1	1	1	1																							
36	$ 5,454,450																															
37	$ 2,905,475									1	1	1	1	1	1	1	1															
38	$ 43,125																															
39	$ 43,125									1	1	1	1	1	1	1	1															
40	$ 242,420									1	1	1	1	1	1	1	1															
41	$ 362,250																															
42	$ 20,125									1	1	1	1	1	1	1	1															
43	$ 207,259																														1	1
44	$ 173,248																														1	1
45	$ 129,682	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
46	$ 59,923	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
47	$ 45,671	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
48	$ 31,419	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
49	$ 17,167	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
50	$ 292,330																															
51	$ 20,125																														1	1
	$ 102,956,983																															

Item	Developer Cost	1105.0	1106.0	1107.0	1108.0	1109.0	1110.0	1111.0	1112.0	1113.0	1201.0	1202.0	1203.0	1204.0	1205.0	1301.0	1302.0	1303.0	1304.0	1401.0	1402.0	1403.0	1404.0	1405.0	1501.0	1502.0	1600.1	1600.2	1600.3	1600.4	1600.5	1600.6	1600.7	1600.8
1	$ 1,544,011																										1	1	1	1		
2	$ 3,948,378																										1	1	1	1		
3	$ 3,017,991																															
4	$ 6,854,498	1	1	1	1	1	1	1	1	1																						
5	$ 1,121,148	1	1	1	1	1	1	1	1	1														1	1							
6	$ 878,386																										1	1	1	1		
7	$ 1,589,910																										1	1	1	1		
8	$ 860,021																										1	1	1	1		
9	$ 822,250																															
10	$ 3,302,096																														1	1
11	$ 6,265,539																														1	1
12	$ 2,669,596																														1	1
13	$ 731,785																														1	1
14	$ 1,076,785																														1	1
15	$ 5,788,824																															
16	$ 2,066,416																															
17	$ 1,796,161																							1	1							
18	$ 783,315																							1	1							
19	$ 375,569																															
20	$ 2,477,408																									1	1					
21	$ 703,438																									1	1					
22	$ 429,203																									1	1					
23	$ 2,420,243																															
24	$ 632,326																															
25	$ 450,630																															
26	$ 9,801,942										1	1	1	1	1	1	1	1	1	1	1	1	1									
27	$ 649,920										1	1	1	1	1	1	1	1	1	1	1	1	1									
28	$ 267,375															1	1	1	1	1	1	1	1									
29	$ 213,900															1	1	1	1	1	1	1	1									
30	$ 3,383,240																											1	1	1	1	
31	$ (364,559)																															
32	$ 17,521,847																															
33	$ 39,445																															
34	$ 25,374																															
35	$ 8,764,779																															
36	$ 5,454,450																															
37	$ 2,905,475																															
38	$ 43,125																															
39	$ 43,125																															
40	$ 242,420																															
41	$ 362,250																															
42	$ 20,125																															
43	$ 207,259	1	1	1	1	1	1	1																								
44	$ 173,248	1	1	1	1	1	1	1																								
45	$ 129,682	1	1	1	1	1	1	1	1	1														1	1	1	1	1	1	1	1	1
46	$ 59,923	1	1	1	1	1	1	1	1	1														1	1	1	1	1	1	1	1	1
47	$ 45,671	1	1	1	1	1	1	1	1	1														1	1	1	1	1	1	1	1	1
48	$ 31,419	1	1	1	1	1	1	1	1	1														1	1	1	1	1	1	1	1	1
49	$ 17,167	1	1	1	1	1	1	1	1	1														1	1	1	1	1	1	1	1	1
50	$ 292,330																							1	1							
51	$ 20,125	1	1	1	1	1	1	1																								
	$ 102,956,983																															

D8. Development and Transportation Infrastructure Staging Impacts

Transportation offsite infrastructure will be constructed in a staged fashion over the 25-year review period. County Staff 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, therefore 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.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.31%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **2.25%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast transportation levy reserve balances over the 25-year development period.

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

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 **$44.47 million** as outlined in the table below. Actual costs, infrastructure staging, and cost estimates were provided by County Engineering staff. It is important to note that these costs represent "gross" costs, of which only a portion will go to support future development during the 25-year review period. The remainder of this section outlines how the "net" costs for future development are determined.

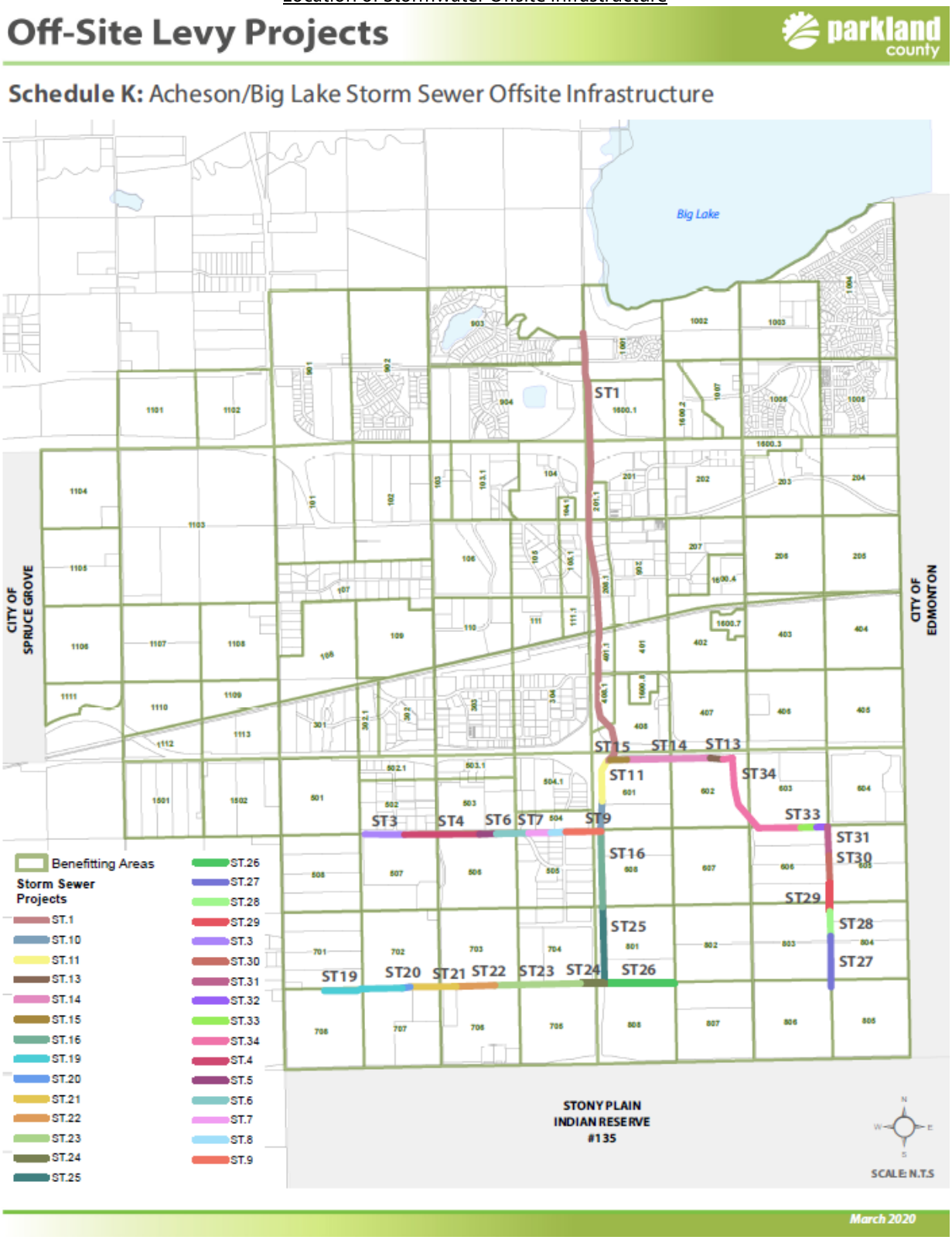
Summary of Stormwater Offsite Infrastructure

Item	Project Description	Cost of Completed Work	Debenture Interest	Estimated Cost of Work Yet to be Completed	Total Project Estimated Cost
1	Outfall	$ 15,815,936	$ 3,423,959.54	$ -	$ 19,239,895
2	Acheson Big Lake Master Drainage Plan Update - 2021	$ -	$ -	$ 67,500	$ 67,500
3	Collector Stage 1, Zone 5 N-111 to N-112	$ 920,460	$ -	$ -	$ 920,460
4	Collector Stage 1, Zone 5 N-112 to N-113	$ 1,195,725	$ -	$ -	$ 1,195,725
5	Collector Stage 1, Zone 5 N-113 to N-114	$ 267,775	$ -	$ -	$ 267,775
6	Collector Stage 1, Zone 5 N-114 to N-115	$ 516,566	$ -	$ -	$ 516,566
7	Collector Stage 1, Zone 5 N-115 to N-116	$ 352,440	$ -	$ -	$ 352,440
8	Collector Stage 1, Zone 5 N-116 to N-117	$ 237,614	$ -	$ -	$ 237,614
9	Collector Stage 1, Zone 5 N-117 to N-118	$ 560,200	$ -	$ -	$ 560,200
10	Collector Stage 1, Zone 5,6,7&8 N-118 to N110	$ 1,863,985	$ -	$ 12,725	$ 1,876,710
11	Collector Stage 1, Zone 5,6,7&8 N-110 to N104	$ 3,113,467	$ -	$ 12,725	$ 3,126,192
12	Acheson Big Lake Master Drainage Plan Update - 2026	$ -	$ -	$ 67,500	$ 67,500
13	Collector Stage 2, Zone 4&6 N-201 to N-202	$ -	$ -	$ 64,609	$ 64,609
14	Collector Stage 2, Zone 4&6 N-202 to N-203	$ -	$ -	$ 1,765,641	$ 1,765,641
15	Collector Stage 2, Zone 4&6 N-203 to N-104	$ -	$ -	$ 945,451	$ 945,451
16	Collector Stage 2, Zone 4&6 N-204 to N-118	$ 1,582,612	$ -	$ 134,529	$ 1,717,141
17	Acheson Big Lake Master Drainage Plan Update - 2031	$ -	$ -	$ 67,500	$ 67,500
18	Acheson Big Lake Master Drainage Plan Update - 2036	$ -	$ -	$ 67,500	$ 67,500
19	Collector Stage 3, Zone 7 N-301 to N-302	$ -	$ -	$ 810,101	$ 810,101
20	Collector Stage 3, Zone 7 N-302 to N-303	$ -	$ -	$ 60,804	$ 60,804
21	Collector Stage 3, Zone 7 N-303 to N-304	$ -	$ -	$ 536,345	$ 536,345
22	Collector Stage 3, Zone 7 N-304 to N-305	$ -	$ -	$ 558,710	$ 558,710
23	Collector Stage 3, Zone 7 N-305 to N-306	$ 288,936	$ -	$ 1,383,543	$ 1,672,479
24	Collector Stage 3, Zone 7 N-306 to N-307	$ 1,039,492	$ -	$ 99,944	$ 1,139,436
25	Collector Stage 3, Zone 7&8 N-307 to N-204	$ -	$ -	$ 949,158	$ 949,158
26	Collector Stage 3, Zone 8 N-308 to N-307	$ -	$ -	$ 738,824	$ 738,824
27	Collector Stage 3, Zone 8 N-309 to N-310	$ -	$ -	$ 528,051	$ 528,051
28	Collector Stage 3, Zone 8 N-310 to N-311	$ -	$ -	$ 300,802	$ 300,802
29	Collector Stage 3, Zone 8 N-311 to N-312	$ -	$ -	$ 372,003	$ 372,003
30	Collector Stage 3, Zone 6 N-312 to N-313	$ -	$ -	$ 366,778	$ 366,778
31	Collector Stage 3, Zone 6 N-313 to N-314	$ -	$ -	$ 353,167	$ 353,167
32	Collector Stage 3, Zone 6 N-314 to N-315	$ -	$ -	$ 94,576	$ 94,576
33	Collector Stage 3, Zone 6 N-315 to N-316	$ -	$ -	$ 239,090	$ 239,090
34	Collector Stage 3, Zone 6 N-316 to N-317	$ -	$ -	$ 2,623,937	$ 2,623,937
35	Acheson Big Lake Master Drainage Plan Update - 2041	$ -	$ -	$ 67,500	$ 67,500
		$ 27,755,207	**$ 3,423,960**	**$ 13,289,012**	**$ 44,468,178**

*Costs are based on 2019 estimates and include engineering costs and contingencies.

A map showing the location of the stormwater offsite infrastructure is shown below.

Location of Stormwater Offsite Infrastructure



E2. Stormwater Offsite Infrastructure Grants & Contributions to Date

The MGA enables the County 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). Parkland County has/will receive **$1.28 million** in special grants and contributions for stormwater offsite levy infrastructure as shown in the table below (note, if the County 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 cost is **$43.19 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
1	Outfall	$ 19,239,895	$ -	$ 1,008,910	$ -	$ 18,230,985
2	Acheson Big Lake Master Drainage Plan Update - 2021	$ 67,500	$ -	$ -	$ -	$ 67,500
3	Collector Stage 1, Zone 5 N-111 to N-112	$ 920,460	$ -	$ -	$ 271,401	$ 649,059
4	Collector Stage 1, Zone 5 N-112 to N-113	$ 1,195,725	$ -	$ -	$ -	$ 1,195,725
5	Collector Stage 1, Zone 5 N-113 to N-114	$ 267,775	$ -	$ -	$ -	$ 267,775
6	Collector Stage 1, Zone 5 N-114 to N-115	$ 516,566	$ -	$ -	$ -	$ 516,566
7	Collector Stage 1, Zone 5 N-115 to N-116	$ 352,440	$ -	$ -	$ -	$ 352,440
8	Collector Stage 1, Zone 5 N-116 to N-117	$ 237,614	$ -	$ -	$ -	$ 237,614
9	Collector Stage 1, Zone 5 N-117 to N-118	$ 560,200	$ -	$ -	$ -	$ 560,200
10	Collector Stage 1, Zone 5,6,7&8 N-118 to N110	$ 1,876,710	$ -	$ -	$ -	$ 1,876,710
11	Collector Stage 1, Zone 5,6,7&8 N-110 to N104	$ 3,126,192	$ -	$ -	$ -	$ 3,126,192
12	Acheson Big Lake Master Drainage Plan Update - 2026	$ 67,500	$ -	$ -	$ -	$ 67,500
13	Collector Stage 2, Zone 4&6 N-201 to N-202	$ 64,609	$ -	$ -	$ -	$ 64,609
14	Collector Stage 2, Zone 4&6 N-202 to N-203	$ 1,765,641	$ -	$ -	$ -	$ 1,765,641
15	Collector Stage 2, Zone 4&6 N-203 to N-104	$ 945,451	$ -	$ -	$ -	$ 945,451
16	Collector Stage 2, Zone 4&6 N-204 to N-118	$ 1,717,141	$ -	$ -	$ -	$ 1,717,141
17	Acheson Big Lake Master Drainage Plan Update - 2031	$ 67,500	$ -	$ -	$ -	$ 67,500
18	Acheson Big Lake Master Drainage Plan Update - 2036	$ 67,500	$ -	$ -	$ -	$ 67,500
19	Collector Stage 3, Zone 7 N-301 to N-302	$ 810,101	$ -	$ -	$ -	$ 810,101
20	Collector Stage 3, Zone 7 N-302 to N-303	$ 60,804	$ -	$ -	$ -	$ 60,804
21	Collector Stage 3, Zone 7 N-303 to N-304	$ 536,345	$ -	$ -	$ -	$ 536,345
22	Collector Stage 3, Zone 7 N-304 to N-305	$ 558,710	$ -	$ -	$ -	$ 558,710
23	Collector Stage 3, Zone 7 N-305 to N-306	$ 1,672,479	$ -	$ -	$ -	$ 1,672,479
24	Collector Stage 3, Zone 7 N-306 to N-307	$ 1,139,436	$ -	$ -	$ -	$ 1,139,436
25	Collector Stage 3, Zone 7&8 N-307 to N-204	$ 949,158	$ -	$ -	$ -	$ 949,158
26	Collector Stage 3, Zone 8 N-308 to N-307	$ 738,824	$ -	$ -	$ -	$ 738,824
27	Collector Stage 3, Zone 8 N-309 to N-310	$ 528,051	$ -	$ -	$ -	$ 528,051
28	Collector Stage 3, Zone 8 N-310 to N-311	$ 300,802	$ -	$ -	$ -	$ 300,802
29	Collector Stage 3, Zone 8 N-311 to N-312	$ 372,003	$ -	$ -	$ -	$ 372,003
30	Collector Stage 3, Zone 6 N-312 to N-313	$ 366,778	$ -	$ -	$ -	$ 366,778
31	Collector Stage 3, Zone 6 N-313 to N-314	$ 353,167	$ -	$ -	$ -	$ 353,167
32	Collector Stage 3, Zone 6 N-314 to N-315	$ 94,576	$ -	$ -	$ -	$ 94,576
33	Collector Stage 3, Zone 6 N-315 to N-316	$ 239,090	$ -	$ -	$ -	$ 239,090
34	Collector Stage 3, Zone 6 N-316 to N-317	$ 2,623,937	$ -	$ -	$ -	$ 2,623,937
35	Acheson Big Lake Master Drainage Plan Update - 2041	$ 67,500	$ -	$ -	$ -	$ 67,500
		$ 44,468,178	**$ -**	**$ 1,008,910**	**$ 271,401**	**$ 43,187,866**

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 Section E4). The County 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 County's annual rate/bylaw updates.

Stormwater Infrastructure Staging

Item	Project Description	Construction Start Year
1	Outfall	2016
2	Acheson Big Lake Master Drainage Plan Update - 2021	2021
3	Collector Stage 1, Zone 5 N-111 to N-112	2016
4	Collector Stage 1, Zone 5 N-112 to N-113	2016
5	Collector Stage 1, Zone 5 N-113 to N-114	2016
6	Collector Stage 1, Zone 5 N-114 to N-115	2016
7	Collector Stage 1, Zone 5 N-115 to N-116	2016
8	Collector Stage 1, Zone 5 N-116 to N-117	2016
9	Collector Stage 1, Zone 5 N-117 to N-118	2016
10	Collector Stage 1, Zone 5,6,7&8 N-118 to N110	2017
11	Collector Stage 1, Zone 5,6,7&8 N-110 to N104	2017
12	Acheson Big Lake Master Drainage Plan Update - 2026	2026
13	Collector Stage 2, Zone 4&6 N-201 to N-202	2041
14	Collector Stage 2, Zone 4&6 N-202 to N-203	2023
15	Collector Stage 2, Zone 4&6 N-203 to N-104	2023
16	Collector Stage 2, Zone 4&6 N-204 to N-118	2019
17	Acheson Big Lake Master Drainage Plan Update - 2031	2031
18	Acheson Big Lake Master Drainage Plan Update - 2036	2036
19	Collector Stage 3, Zone 7 N-301 to N-302	2044
20	Collector Stage 3, Zone 7 N-302 to N-303	2037
21	Collector Stage 3, Zone 7 N-303 to N-304	2037
22	Collector Stage 3, Zone 7 N-304 to N-305	2020
23	Collector Stage 3, Zone 7 N-305 to N-306	2019
24	Collector Stage 3, Zone 7 N-306 to N-307	2019
25	Collector Stage 3, Zone 7&8 N-307 to N-204	2019
26	Collector Stage 3, Zone 8 N-308 to N-307	2044
27	Collector Stage 3, Zone 8 N-309 to N-310	2044
28	Collector Stage 3, Zone 8 N-310 to N-311	2044
29	Collector Stage 3, Zone 8 N-311 to N-312	2044
30	Collector Stage 3, Zone 6 N-312 to N-313	2044
31	Collector Stage 3, Zone 6 N-313 to N-314	2044
32	Collector Stage 3, Zone 6 N-314 to N-315	2044
33	Collector Stage 3, Zone 6 N-315 to N-316	2022
34	Collector Stage 3, Zone 6 N-316 to N-317	2022
35	Acheson Big Lake Master Drainage Plan Update - 2041	2041

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

**Project costs were inflated by 2% per annum for the first 3 years, and 3% per annum thereafter to the year of construction.

***A blank year (if any) represents a project which has been combined with another project, costs have been removed from the model, or project has been completed.

E4. Stormwater Offsite Infrastructure Benefiting Parties

The stormwater offsite infrastructure previously outlined will benefit various parties to varying degrees as determined by County staff. Four potential benefiting parties were identified including:

- Parkland County – a portion of the stormwater infrastructure which is required to service existing residents/businesses.
- Other Stakeholders – other parties (such as neighboring municipalities) that benefit from the infrastructure.
- Parkland County Future Development (Financial Oversizing) - that portion of cost which benefits future development beyond the 25-year review period.
- Parkland County Future Development (In Rates) – all growth-related infrastructure (i.e., levyable stormwater infrastructure costs) during the 25-year rate planning period.

The table below outlines the allocation of stormwater offsite levy infrastructure costs to benefiting parties. Project allocations were determined by County 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 %
1	Outfall	$ 18,230,985			0.0%	100.0%
2	Acheson Big Lake Master Drainage Plan Update - 2021	$ 67,500			0.0%	100.0%
3	Collector Stage 1, Zone 5 N-111 to N-112	$ 649,059			0.0%	100.0%
4	Collector Stage 1, Zone 5 N-112 to N-113	$ 1,195,725			0.0%	100.0%
5	Collector Stage 1, Zone 5 N-113 to N-114	$ 267,775			0.0%	100.0%
6	Collector Stage 1, Zone 5 N-114 to N-115	$ 516,566			0.0%	100.0%
7	Collector Stage 1, Zone 5 N-115 to N-116	$ 352,440			0.0%	100.0%
8	Collector Stage 1, Zone 5 N-116 to N-117	$ 237,614			0.0%	100.0%
9	Collector Stage 1, Zone 5 N-117 to N-118	$ 560,200			0.0%	100.0%
10	Collector Stage 1, Zone 5,6,7&8 N-118 to N110	$ 1,876,710			0.0%	100.0%
11	Collector Stage 1, Zone 5,6,7&8 N-110 to N104	$ 3,126,192			0.0%	100.0%
12	Acheson Big Lake Master Drainage Plan Update - 2026	$ 67,500			24.0%	76.0%
13	Collector Stage 2, Zone 4&6 N-201 to N-202	$ 64,609			84.0%	16.0%
14	Collector Stage 2, Zone 4&6 N-202 to N-203	$ 1,765,641			12.0%	88.0%
15	Collector Stage 2, Zone 4&6 N-203 to N-104	$ 945,451			12.0%	88.0%
16	Collector Stage 2, Zone 4&6 N-204 to N-118	$ 1,717,141			0.0%	100.0%
17	Acheson Big Lake Master Drainage Plan Update - 2031	$ 67,500			44.0%	56.0%
18	Acheson Big Lake Master Drainage Plan Update - 2036	$ 67,500			64.0%	36.0%
19	Collector Stage 3, Zone 7 N-301 to N-302	$ 810,101			96.0%	4.0%
20	Collector Stage 3, Zone 7 N-302 to N-303	$ 60,804			68.0%	32.0%
21	Collector Stage 3, Zone 7 N-303 to N-304	$ 536,345			68.0%	32.0%
22	Collector Stage 3, Zone 7 N-304 to N-305	$ 558,710			0.0%	100.0%
23	Collector Stage 3, Zone 7 N-305 to N-306	$ 1,672,479			0.0%	100.0%
24	Collector Stage 3, Zone 7 N-306 to N-307	$ 1,139,436			0.0%	100.0%
25	Collector Stage 3, Zone 7&8 N-307 to N-204	$ 949,158			0.0%	100.0%
26	Collector Stage 3, Zone 8 N-308 to N-307	$ 738,824			96.0%	4.0%
27	Collector Stage 3, Zone 8 N-309 to N-310	$ 528,051			96.0%	4.0%
28	Collector Stage 3, Zone 8 N-310 to N-311	$ 300,802			96.0%	4.0%
29	Collector Stage 3, Zone 8 N-311 to N-312	$ 372,003			96.0%	4.0%
30	Collector Stage 3, Zone 6 N-312 to N-313	$ 366,778			96.0%	4.0%
31	Collector Stage 3, Zone 6 N-313 to N-314	$ 353,167			96.0%	4.0%
32	Collector Stage 3, Zone 6 N-314 to N-315	$ 94,576			96.0%	4.0%
33	Collector Stage 3, Zone 6 N-315 to N-316	$ 239,090			8.0%	92.0%
34	Collector Stage 3, Zone 6 N-316 to N-317	$ 2,623,937			8.0%	92.0%
35	Acheson Big Lake Master Drainage Plan Update - 2041	$ 67,500			84.0%	16.0%
		$ 43,187,866				

**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. In future, as the 25-year review period moves further out these additional developer costs will gradually be included in future rate calculations.

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 **$38.61 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 County has collected **$8.79 million** in offsite levies to date. This results in an adjusted offsite levy cost of approximately **$29.82 million**.

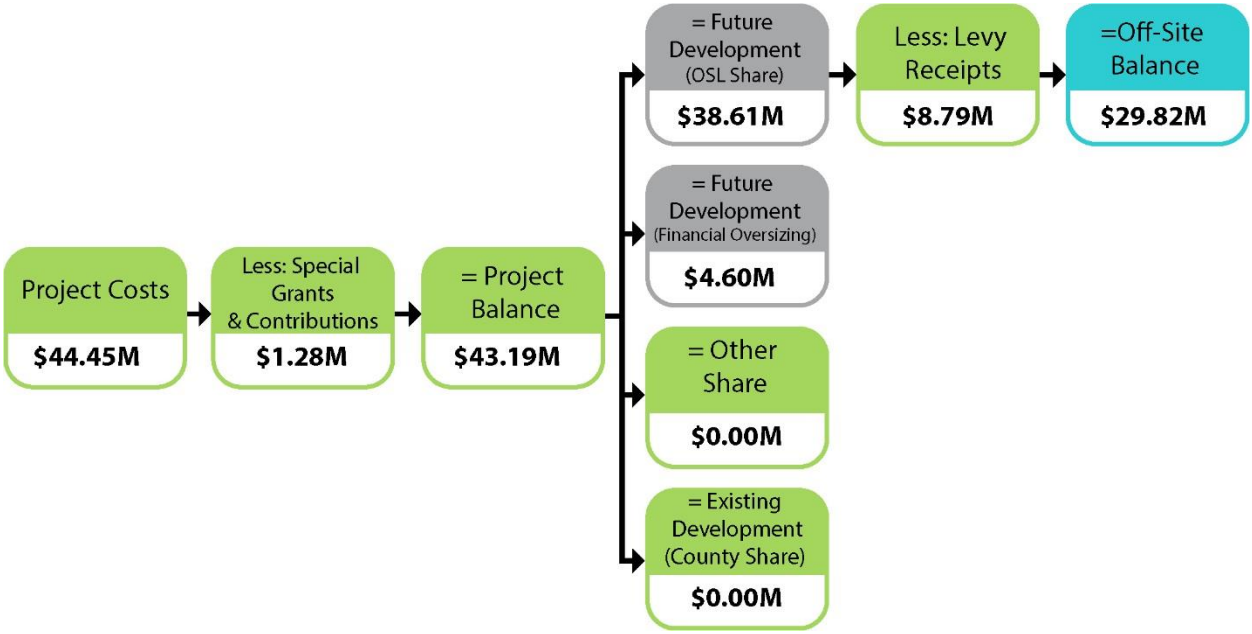
Offsite Levy Funds Collected to Date & Adjusted Levy Cost

Item	Project Description	OSL / Developer Cost	Offsite Levy Funds Collected Under Old Bylaw #52-2003	Offsite Levy Funds Collected Starting Jan 1, 2013	Adjusted Developer (Levy) Cost
1	Outfall	$ 18,230,985	$ 2,964,467	$ 2,940,159	$ 12,326,359
2	Acheson Big Lake Master Drainage Plan Update - 2021	$ 67,500	$ -	$ 736	$ 66,764
3	Collector Stage 1, Zone 5 N-111 to N-112	$ 649,059	$ -	$ -	$ 649,059
4	Collector Stage 1, Zone 5 N-112 to N-113	$ 1,195,725	$ -	$ -	$ 1,195,725
5	Collector Stage 1, Zone 5 N-113 to N-114	$ 267,775	$ -	$ 18,731	$ 249,044
6	Collector Stage 1, Zone 5 N-114 to N-115	$ 516,566	$ -	$ 32,665	$ 483,900
7	Collector Stage 1, Zone 5 N-115 to N-116	$ 352,440	$ -	$ 22,387	$ 330,053
8	Collector Stage 1, Zone 5 N-116 to N-117	$ 237,614	$ -	$ 75,353	$ 162,261
9	Collector Stage 1, Zone 5 N-117 to N-118	$ 560,200	$ -	$ 260,378	$ 299,822
10	Collector Stage 1, Zone 5,6,7&8 N-118 to N110	$ 1,876,710	$ -	$ 535,544	$ 1,341,165
11	Collector Stage 1, Zone 5,6,7&8 N-110 to N104	$ 3,126,192	$ -	$ 999,645	$ 2,126,546
12	Acheson Big Lake Master Drainage Plan Update - 2026	$ 51,300	$ -	$ 553	$ 50,747
13	Collector Stage 2, Zone 4&6 N-201 to N-202	$ 10,337	$ -	$ -	$ 10,337
14	Collector Stage 2, Zone 4&6 N-202 to N-203	$ 1,553,764	$ -	$ -	$ 1,553,764
15	Collector Stage 2, Zone 4&6 N-203 to N-104	$ 831,997	$ -	$ -	$ 831,997
16	Collector Stage 2, Zone 4&6 N-204 to N-118	$ 1,717,141	$ -	$ 348,672	$ 1,368,469
17	Acheson Big Lake Master Drainage Plan Update - 2031	$ 37,800	$ -	$ 394	$ 37,406
18	Acheson Big Lake Master Drainage Plan Update - 2036	$ 24,300	$ -	$ 235	$ 24,065
19	Collector Stage 3, Zone 7 N-301 to N-302	$ 32,404	$ -	$ -	$ 32,404
20	Collector Stage 3, Zone 7 N-302 to N-303	$ 19,457	$ -	$ -	$ 19,457
21	Collector Stage 3, Zone 7 N-303 to N-304	$ 171,630	$ -	$ -	$ 171,630
22	Collector Stage 3, Zone 7 N-304 to N-305	$ 558,710	$ -	$ 63,080	$ 495,629
23	Collector Stage 3, Zone 7 N-305 to N-306	$ 1,672,479	$ -	$ 155,266	$ 1,517,213
24	Collector Stage 3, Zone 7 N-306 to N-307	$ 1,139,436	$ -	$ 33,390	$ 1,106,046
25	Collector Stage 3, Zone 7&8 N-307 to N-204	$ 949,158	$ -	$ 334,776	$ 614,382
26	Collector Stage 3, Zone 8 N-308 to N-307	$ 29,553	$ -	$ -	$ 29,553
27	Collector Stage 3, Zone 8 N-309 to N-310	$ 21,122	$ -	$ -	$ 21,122
28	Collector Stage 3, Zone 8 N-310 to N-311	$ 12,032	$ -	$ -	$ 12,032
29	Collector Stage 3, Zone 8 N-311 to N-312	$ 14,880	$ -	$ -	$ 14,880
30	Collector Stage 3, Zone 6 N-312 to N-313	$ 14,671	$ -	$ -	$ 14,671
31	Collector Stage 3, Zone 6 N-313 to N-314	$ 14,127	$ -	$ -	$ 14,127
32	Collector Stage 3, Zone 6 N-314 to N-315	$ 3,783	$ -	$ -	$ 3,783
33	Collector Stage 3, Zone 6 N-315 to N-316	$ 219,963	$ -	$ -	$ 219,963
34	Collector Stage 3, Zone 6 N-316 to N-317	$ 2,414,022	$ -	$ -	$ 2,414,022
35	Acheson Big Lake Master Drainage Plan Update - 2041	$ 10,800	$ -	$ 76	$ 10,724
		$ 38,605,630	**$ 2,964,467**	**$ 5,822,042**	**$ 29,819,122**

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 **$29.82 million**. The cost allocations to each benefitting party are based on the benefitting percentages shown in Section B4. The offsite levy balance (due from developers) is allocated to various benefitting areas (as described in the next section).

Total Stormwater Offsite Levy Costs



E7. Stormwater Infrastructure Benefiting Areas

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

Benefiting Areas for Stormwater Offsite Infrastructure

Item	Developer Cost	101.0	102.0	103.0	103.1	104.0	104.1	105.0	105.1	106.0	107.0	108.0	109.0	110.0	111.0	111.1	201.0	201.1	202.0	203.0	204.0	205.0	206.0	207.0	208.0	208.1	301.0	302.0	302.1	303.0	304.0
1	$ 12,326,359																														
2	$ 66,764	1	1	1	1	1	1	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	$ 649,059																														
4	$ 1,195,725																														
5	$ 249,044																														
6	$ 483,900																														
7	$ 330,053																														
8	$ 162,261																														
9	$ 299,822																														
10	$ 1,341,165																														
11	$ 2,126,546																														
12	$ 50,747	1	1	1	1	1	1	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	$ 10,337																														
14	$ 1,553,764																														
15	$ 831,997																														
16	$ 1,368,469																														
17	$ 37,406	1	1	1	1	1	1	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	$ 24,065	1	1	1	1	1	1	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	$ 32,404																														
20	$ 19,457																														
21	$ 171,630																														
22	$ 495,629																														
23	$ 1,517,213																														
24	$ 1,106,046																														
25	$ 614,382																														
26	$ 29,553																														
27	$ 21,122																														
28	$ 12,032																														
29	$ 14,880																														
30	$ 14,671																														
31	$ 14,127																														
32	$ 3,783																														
33	$ 219,963																														
34	$ 2,414,022																														
35	$ 10,724	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 29,819,122																														

Item	Developer Cost	401.0	401.1	402.0	403.0	404.0	405.0	406.0	407.0	408.0	408.1	501.0	502.0	502.1	503.0	503.1	504.0	504.1	505.0	506.0	507.0	508.0	601.0	602.0	603.0	604.0	605.0	606.0	607.0	608.0
1	$ 12,326,359	1	1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1
2	$ 66,764	1	1	1	1	1	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	$ 649,059											1	1	1							1	1								
4	$ 1,195,725											1	1	1							1	1								
5	$ 249,044											1	1	1	1	1					1	1								
6	$ 483,900											1	1	1	1	1				1	1	1								
7	$ 330,053											1	1	1	1	1	1	1		1	1	1								
8	$ 162,261											1	1	1	1	1	1	1	1	1	1	1								
9	$ 299,822											1	1	1	1	1	1	1	1	1	1	1								
10	$ 1,341,165											1	1	1	1	1	1	1	1	1	1	1								
11	$ 2,126,546											1	1	1	1	1	1	1	1	1	1	1								
12	$ 50,747	1	1	1	1	1	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	$ 10,337								1																1	1	1		
14	$ 1,553,764								1															1	1	1	1			
15	$ 831,997								1														1	1	1	1	1		1
16	$ 1,368,469																													
17	$ 37,406	1	1	1	1	1	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	$ 24,065	1	1	1	1	1	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	$ 32,404																													
20	$ 19,457																													
21	$ 171,630																													
22	$ 495,629																													
23	$ 1,517,213																													
24	$ 1,106,046																													
25	$ 614,382																													
26	$ 29,553																													
27	$ 21,122																													
28	$ 12,032																													
29	$ 14,880																													
30	$ 14,671																										1	1		
31	$ 14,127																										1	1		
32	$ 3,783																									1	1	1		
33	$ 219,963																									1	1	1		
34	$ 2,414,022																								1	1	1	1		
35	$ 10,724	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 29,819,122																													

Item	Developer Cost	701.0	702.0	703.0	704.0	705.0	706.0	707.0	708.0	801.0	802.0	803.0	804.0	805.0	806.0	807.0	808.0	901.0	902.0	903.0	904.0	1001.0	1002.0	1003.0	1004.0	1005.0	1006.0	1007.0	1101.0	1102.0	1103.0	1104.0
1	$ 12,326,359	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1															
2	$ 66,764	1	1	1	1	1	1	1	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	$ 649,059																															
4	$ 1,195,725																															
5	$ 249,044																															
6	$ 483,900																															
7	$ 330,053																															
8	$ 162,261																															
9	$ 299,822																															
10	$ 1,341,165	1	1	1	1	1	1	1	1	1	1					1	1															
11	$ 2,126,546	1	1	1	1	1	1	1	1	1	1					1	1															
12	$ 50,747	1	1	1	1	1	1	1	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	$ 10,337											1	1	1	1	1	1															
14	$ 1,553,764											1	1	1	1	1	1															
15	$ 831,997											1	1	1	1	1	1															
16	$ 1,368,469	1	1	1	1	1	1	1	1	1	1					1	1															
17	$ 37,406	1	1	1	1	1	1	1	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	$ 24,065	1	1	1	1	1	1	1	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	$ 32,404	1							1																							
20	$ 19,457	1	1						1																							
21	$ 171,630	1	1				1	1	1																							
22	$ 495,629	1	1	1	1		1	1	1																							
23	$ 1,517,213	1	1	1	1		1	1	1																							
24	$ 1,106,046	1	1	1	1	1	1	1	1																							
25	$ 614,382	1	1	1	1	1	1	1	1		1					1	1															
26	$ 29,553										1					1	1															
27	$ 21,122													1	1																	
28	$ 12,032												1	1	1																	
29	$ 14,880											1	1	1	1																	
30	$ 14,671											1	1	1	1																	
31	$ 14,127											1	1	1	1																	
32	$ 3,783											1	1	1	1																	
33	$ 219,963											1	1	1	1																	
34	$ 2,414,022											1	1	1	1																	
35	$ 10,724	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	$ 29,819,122																															

Item	Developer Cost	1105.0	1106.0	1107.0	1108.0	1109.0	1110.0	1111.0	1112.0	1113.0	1201.0	1202.0	1203.0	1204.0	1205.0	1301.0	1302.0	1303.0	1304.0	1401.0	1402.0	1403.0	1404.0	1405.0	1501.0	1502.0	1600.1	1600.2	1600.3	1600.4	1600.5	1600.6	1600.7	1600.8
1	$ 12,326,359																																1
2	$ 66,764	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1
3	$ 649,059																																
4	$ 1,195,725																																
5	$ 249,044																																
6	$ 483,900																																
7	$ 330,053																																
8	$ 162,261																																
9	$ 299,822																																
10	$ 1,341,165																																
11	$ 2,126,546																																
12	$ 50,747	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1
13	$ 10,337																																
14	$ 1,553,764																																
15	$ 831,997																																
16	$ 1,368,469																																
17	$ 37,406	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1
18	$ 24,065	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1
19	$ 32,404																																
20	$ 19,457																																
21	$ 171,630																																
22	$ 495,629																																
23	$ 1,517,213																																
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30	$ 14,671																																
31	$ 14,127																																
32	$ 3,783																																
33	$ 219,963																																
34	$ 2,414,022																																
35	$ 10,724	1	1	1	1	1	1	1	1	1															1	1	1	1	1	1	1	1	1
	$ 29,819,122																																

E8. Development and Stormwater Infrastructure Staging Impacts

Stormwater offsite infrastructure will be constructed in a staged fashion over the 25-year review period. County Staff 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, therefore 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.

To compensate parties for capital they provide in front-ending offsite infrastructure construction, a **2.31%** interest allowance has been charged to the reserve when it is forecast to be in a negative balance. Further, a **2.25%** interest credit has been provided to the reserve when it is forecast to be in a positive balance. The graph and table below outline the forecast stormwater levy reserve balances over the 25-year development period.

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