

Cemetery Needs Assessment

Phase 3 Report

November 2022



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Acknowledgements

Thank you to the many community groups, cemetery managers, and stakeholders who participated in Phase 3 of this cemetery assessment.

Strathcona County is located on Treaty Six Territory and the homeland of the Métis Nation of Alberta, Region Two and Four. Strathcona County honours the First Peoples of this land. We recognize that we stand upon land that carries the footsteps of Cree, Métis, and Blackfoot amongst many other Nations, who have been here for thousands of years. Therefore, Strathcona County has an inherent responsibility to foster healthier relationships with First Peoples and further the Calls to Action.

Executive Summary

Strathcona Cemetery – Phase 3 – Executive Summary

In 2018, Council initiated an external review and report on the viability and desirability of a community cemetery in Strathcona County ([Community Cemetery Assessment](#)). Phases 1 and 2 were completed in 2020 and key findings were that the existing cemeteries in Strathcona County have the capacity to meet demand for the next 30 years, but there are some challenges related to awareness and accessibility. Community engagement indicated an interest in cemetery options, inclusivity, and affordability. Two scenarios for a community cemetery were presented – a full-service community cemetery established by the County, or a cemetery offering only green burial and scattering.

In the spring of 2022, the County initiated work on Phase 3 of this project. The primary purpose of Phase 3 was to conduct a financial feasibility and funding analysis of the scenarios. In addition, options for existing rural and faith-based cemeteries were explored.

In response to the feedback received from Council in Phases 1 and 2, and the current financial environment, the scenarios were modified, and analysis was completed on the three scenarios identified below. The financial analysis reflects 30 years of construction and operation.

- **Scenario 1** – Develop a full-service community cemetery as proposed in the Community Cemetery Assessment
- Scenario 1 would provide an exclusive new cemetery for County residents, but at the highest cost, and is dependent on finding a suitable site ideally close to Sherwood Park

Revenues	Operating Costs	Capital Costs	Surplus/Deficit w/o Capital Expenditures	Surplus/Deficit w/ Capital Expenditures
\$13.3M	\$12.7M	\$6.7M	\$0.6 M	-\$6.1M

- **Scenario 2** - Partner with one or more existing cemeteries to offer limited cemetery services based on the capacity of the cemetery
- Scenario 2 would provide opportunities to leverage existing cemeteries, but the quality of the cemetery experience may be compromised, and the cost could still be significant

Revenues	Operating Costs	Capital Costs	Surplus/Deficit w/o Capital Expenditures	Surplus/Deficit w/ Capital Expenditures
\$2.2M	\$4.2M	\$0.7M	-\$2.0M	-\$2.7M

- **Scenario 3** – Enhance cemetery services through the supporting actions identified below:
 - **Supporting Action 1** - Publicize opportunities and services at existing cemeteries
 - **Supporting Action 2** - Designate a location on public land for scattering in the County
 - **Supporting Action 3** - Connect rural and historic cemeteries with local supports

Scenario 3 provides opportunities to support existing cemeteries, but the County would have limited control over cemetery services and experiences

One or more of the supporting actions could be implemented along with any of the scenarios.

Should Council decide to proceed with the cemetery project, they would select a preferred scenario and supporting actions, if any. Selecting scenarios 1 and 2 would require a Phase 4 of the project, while selecting scenario 3 would not require Phase 4 and could be completed by County administration. The following next steps are associated with each of the scenarios:

- **Scenario 1:** (Phase 4 required) - identify and evaluate potential locations for a cemetery, including site analysis, stakeholder and community engagement, and a recommendation for a preferred site
- **Scenario 2:** (Phase 4 required) – review potential cemeteries in terms of their capacity to support interments, negotiate partnership(s), conduct financial analysis, and identify cemetery services to be provided at the partner cemetery(ies)
- **Scenario 3:** (Phase 4 not required) - action is supported by County administration
 - **Supporting Action 1** – collect information on existing cemeteries and prepare and post material on the County’s website
 - **Supporting Action 2** – identify and evaluate potential locations for scattering on County land and complete any bylaw changes required
 - **Supporting Action 3** – facilitate connection of existing cemeteries with volunteer supports and resources

1. Introduction

1.1 Context

Strathcona County does not currently own or operate a community cemetery. Cemetery services are provided within the County by a private corporation, religious-affiliated organizations, and some volunteer community-based groups.

In 2018, Council initiated an external review and report on the viability and desirability of a community cemetery in Strathcona County. The following are the project's four phases:

- **Phase 1** - assessment of cemetery needs (completed in 2020, Community Cemetery Assessment, Urban Systems)
- **Phase 2** - review of the current market, the potential services, and form of a new community cemetery (completed in 2020, in same report as Phase 1)
- **Phase 3** - analysis of financial feasibility and operational structure (in progress, summarized in this report)
- **Phase 4** - evaluation of potential sites (pending Council direction)

Phases 1 and 2 included a comprehensive community engagement process, analysis of existing and comparable cemeteries, market and demand analysis, and next steps.

The key findings of the Community Cemetery Assessment were as follows:

- Existing cemeteries in Strathcona County have the capacity to meet demand for the next 30 years
- Capacity is primarily in the private cemetery and two faith-based cemeteries
- Although many of the faith-based cemeteries are open to people of all denominations, faith-based cemeteries may not be a preferred option for some residents
- Fees at the private cemetery are higher than at other cemeteries reviewed, including municipal cemeteries
- Existing cemeteries have limited offerings of green burial

The following common themes from the Strategic Plan and Social Framework were also echoed in the community engagement process:

Options

Inclusivity

Affordability

Two scenarios for a community cemetery were presented in response to the key findings:

- **Scenario 1** - Strathcona County establishes a full-service community cemetery to provide all residents with a variety of affordable services
- **Scenario 2** - Strathcona County establishes a cemetery offering only green burial and scattering, to complement the services available at the private cemetery and to offer limited affordable options

Comments on historic and rural cemeteries were also received during the 2020 engagement process of Phases 1 and 2 of the cemetery assessment. Most of these cemeteries are still offering interments. Some of the small operational cemeteries indicated they anticipate future challenges maintaining volunteerism to support cemetery operations.

1.2 Purpose of Phase 3

In the spring of 2022, the County initiated work on Phase 3 of this project. The primary purpose of Phase 3 was to conduct a financial feasibility and funding analysis of the scenarios. In addition, options for existing rural and faith-based cemeteries were explored.

In response to the feedback received from Council in Phases 1 and 2, and the current fiscal environment, the scenarios were modified to the following scenarios and supporting actions:

- **Scenario 1** – Develop a full-service community cemetery as proposed in the Community Cemetery Assessment
- **Scenario 2** - Partner with one or more existing cemeteries to offer limited cemetery services based on the capacity of the cemetery
- **Scenario 3** – Enhance cemetery services through the supporting actions identified below:
 - **Supporting Action 1** - Publicize opportunities and services at existing cemeteries
 - **Supporting Action 2** - Designate a location on public land for scattering in the County
 - **Supporting Action 3** – Connect rural and historic cemeteries with local supports

One or more of the supporting actions could be implemented along with any of the scenarios.

This report explores the scenarios and supporting actions, with financial modelling where applicable.

1.3 Process

This process involved working closely with County staff from three departments – Family and Community Services; Recreation, Parks and Culture; and Planning and Development Services. Meetings were also held with those who manage the cemeteries that were identified in the previous report as having the greatest capacity for more interments.

Targeted stakeholders including cemetery operators, boards of directors, and religious and community cemetery leaders were also contacted to assess and gather additional information on existing and historic cemeteries.

2. Scenarios and Supporting Actions

2.1 Scenario 1

Summary

Scenario 1 assumes that a potential community cemetery will offer a wide range of cemetery service options including the following:

- Traditional full burial - placement of a full casket in the ground, with mowed grass and a monument on the surface, can allow for two caskets on top of each other for efficiency; full burial plot can also be used for up to eight cremated remains interments with one or no full burial
- Green burial – placement of un-embalmed remains in a biodegradable shroud or box in the ground; surface is planted and allowed to naturalize, name is inscribed on a communal monument (or an individual monument, which is less “green”); can be double depth
- Cremation plots - placement of cremated remains in an urn or container in the ground, with mowed grass and a monument on the surface
- Columbarium niches – placement of cremated remains in a niche (securely locked enclosure within a columbarium wall) with a plaque or engraving on the niche door – columbaria can be a range of sizes with small ones serving one family
- Scattering gardens - cremated remains are placed directly in the ground (not in a vessel) in a specific area of the cemetery, name is inscribed on a communal monument

Assumptions

The assumptions for Scenario 1 are adapted from the previous report. Existing rural and faith-based cemeteries accommodate 13% of the market share of burials, and 2% of cremation interments. For the remaining demand, we assume that Glenwood Memorial Gardens would retain 70% of the burial and cremation market share and that the remaining 30% of the market share would be directed towards the community cemetery. This projection would result in demand over 30 years for approximately 2,100 burials and 4,100 cremated remains interments in the community cemetery. These projections were originally prepared in 2020 for a 30-year period. The same projections are used in this analysis with an updated 30-year period of 2024-2053.

Projected interment demand by service type at the community cemetery is based on trends in similar communities and the public survey results. Over half of community survey respondents in Phase 1 indicated they are very or somewhat interested in green burial, which has been factored into projections. Assumptions are made to determine the proportionate demand for each service type and the space required to accommodate all interments, as follows:

- 50% of burials will be traditional full burials interred in double depth plots
- Plots will accommodate an average of 1.5 interments per plot for the first 10 years, then increase to 1.75 interments per plot thereafter
- 50% of burials will be green burials interred in double depth plots (green burial demand could also be higher due to limited options for green burial in the existing cemeteries)

- 10% of the market share for cremations will switch to green burial in years 1 to 10, 15% in years 11-20, and 20% in years 21-30; this will result in decreasing proportions of demand in each of the other cremation options
- 20% of green burials will be in single depth plots
- 80% of green burials will be in double depth plots
- This option could consist of a double depth plot purchased by a single family, or consecutive double depth burial (those interred are not related)
- Plots will average 1.75 interments each to reflect potential for a higher number of second interments earlier than traditional burial through offering consecutive burial option
- 45% of cremated remains (cremains) interments will be interred in cremation plots in years 1-10, 42% in years 11-20, and 40% in years 21 to 30
- 20% of cremains for the first five years and 40% thereafter will be interred as the second interment in a cremation plot or over a full burial
- 23% of cremains interments will be placed in a columbarium niche in years 1-10, 21% in years 11-20, and 20% in years 21 to 30
- 67% of niches will accommodate two sets of cremains
- 23% of cremains interments will be interred in scattering gardens (or a memorial option may be chosen instead of scattering) in years 1-10, 21% in years 11-20, and 20% in years 21-30

Projected demand for the first few years of operation is reduced to reflect anticipated availability of services after construction. We assume that no interments will be conducted in the first year as construction will be occurring. We then assume a gradual increase in interment demand, so projected interments are phased in at 20% of projected demand in 2025, increasing by 20% each year until 2029 when 100% of projected interment demand will be accommodated.

Based on the population projections, anticipated market share captured by a community cemetery, and the demand by service type, the resulting interments by type and space requirements are shown below in 10-year increments.

PROJECTED 30-YEAR INTERMENTS AT COMMUNITY CEMETERY – SCENARIO 1

Interment Service	2024-2033	2034-2043	2044-2053	30-Year Total Projected
Traditional Burials – Single and Double Depth	158	197	238	592
Green Burials – Single and Double Depth	232	439	701	1372
Total Burials	390	636	939	1964
Cremation Plot	327	679	929	1935
Columbarium Niche	164	342	466	972
Scattering	164	342	466	972
Total Cremations*	655	1363	1861	3879
Total Interments	1045	1999	2800	5843

**"Cremations" is used in this context to include cremation interments and placement in niches*

PROJECTED 30-YEAR SPACE REQUIREMENTS AT COMMUNITY CEMETERY – SCENARIO 1

Interment Service	2024-2033	2034-2043	2044-2053	30-Year Total Projected
Traditional Burials - Double Depth	105	112	136	353
Green Burials - Single Depth	46	88	140	274
Green Burials - Double Depth	106	201	320	637
Total Burials	257	401	596	1254
Cremation Plot	213	408	559	1180
Columbarium Niche	109	228	309	646
Scattering	164	342	466	972
Total Cremations	486	978	1334	2798
Total Interments	743	1379	1930	4052

Land acquisition costs are not included in the financial analysis because it is possible that the cemetery could be developed on land owned by the County or another government or organization. Should the County need to purchase land for the cemetery, there is a wide variation in potential land costs based on location and many other factors.

Financial Analysis

Revenues and Fees

Cemetery revenues are derived from the following sources:

- Right of interment sales (license fees)
- Interment fees (open/close fees charged at the time of interment)
- Additional fees (marker permit fees, niche, and monument installation fees, etc.)

Additional fees are excluded from the financial analysis as any applicable fees are usually set to achieve full cost recovery, or the expenses incurred by the County would be minimal and not result in a meaningful impact on financial outcomes.

As part of the financial analysis, we prepared cash flow scenarios with two fee options. The first was the average of fees in comparable cemeteries in Alberta, which would provide a lower fee option to County residents, and the other was based on the fees for South Haven Cemetery, operated by the City of Edmonton.

Right of interment fees are charged at the time a plot or niche is purchased. Proposed fees, including right of interment, PCF allowance, and interment (open/close), i.e., the total cost to the purchaser, are shown in the figures below for both options. For double depth burial, the open/close fee applies per interment. The variation in prices for columbarium niches is based on niches higher on the wall being more desirable and typically more expensive than the lowest ones.

Fees are shown in 2022 dollars and are not inflated in the scenarios as it is expected that fees will be adjusted annually to reflect increases in operating and maintenance costs.

FEES FROM COMPARABLE COMMUNITIES

Interment Type	Right of Interment	Perpetual Care Fund	Open/Close	Total Cost to Purchaser
Full Burial – Single and Double Depth	\$1,920.00	\$620.00	\$1,015.63	\$3,555.63
Green Burial – Single and Double Depth	\$1,920.00	\$620.00	\$1,070.00	\$3,610.00
Cremation Plot	\$870.00	\$240.00	\$457.38	\$1,567.38
Columbarium Niche Lower	\$1,560.00	\$620.00	\$157.21	\$2,337.21
Columbarium Niche Upper	\$2,240.00	\$620.00	\$157.21	\$3,017.21
Scattering	\$0.00	\$41.25	\$275.00	\$316.25

Comparable cemeteries include St. Albert, Red Deer, Lethbridge, Medicine Hat, Ft. Saskatchewan, and Edmonton's South Haven.

FEES AT SOUTH HAVEN CEMETERY

Interment Type	Right of Interment	Perpetual Care Fund	Open/Close	Total Cost to Purchaser
Full Burial – Double Depth	\$3,000.00	\$750.00	\$1,740.00	\$5,490.00
Green Burial – Double Depth	\$3,000.00	\$750.00	\$1,570.00	\$5,320.00
Cremation Plot	\$1,600.00	\$400.00	\$525.00	\$2,525.00
Columbarium Niche Lower	\$3,620.00	\$543.00	\$275.00	\$4,438.00
Columbarium Niche Upper	\$4,760.00	\$714.00	\$275.00	\$5,749.00
Scattering	\$0.00	\$70.00	\$275.00	\$350.00

Note: Scattering is not charged a right of interment fee as there is no dedicated space so PCF is charged on the open/close fee.

Cash flow projections for both fee options are provided later in this section, but the option with fees from comparable cemeteries is not provided in detail as the potential financial impact was determined to be prohibitive. The Scenario 1 cemetery is envisioned as offering a similar level of service as South Haven, including the provision of a variety of services in an attractive, well maintained, and tranquil site. This scenario therefore places fees higher than those of comparable cemeteries but much less than a private cemetery. The revenue projections provided below reflect fees at South Haven Cemetery.

Revenue projections are based on the projected number of interments and cemetery fees. Projected revenues in 10-year increments are provided in the figure below. Revenue projections only include rights of interment and interment (open/close) fees based on the interment types. Weekend and overtime interment fees are excluded from this analysis as it is difficult to determine demand, but these fees generally include a small markup.

REVENUE PROJECTIONS

Revenue Types	2024-2033	2034-2043	2044-2053	30-Year Total
Right of Interment Revenue	\$1,600,165	\$2,876,122	\$4,067,980	\$8,544,267
Interment Revenue	\$900,627	\$1,576,195	\$2,257,895	\$4,734,717
Total Revenue (Gross)	\$2,500,792	\$4,452,317	\$6,325,875	\$13,278,984
Average Per Year	\$250,079	\$445,232	\$632,587	\$442,633

Perpetual Care Fund

A perpetual care fund (PCF) may be set up for the care and maintenance of the cemetery after the cemetery has reached capacity and revenues will no longer be available. Establishing a PCF is a best practice for municipal cemeteries although it is not required by Alberta legislation. Although the County could withdraw interest earned on the PCF as soon as the cemetery is operating, it is a better practice to retain funds in the PCF to continue accruing interest over time. The PCF should grow large enough that interest earned on the balance can be used to maintain the cemetery in perpetuity.

A PCF contribution is usually calculated as a percentage of the right of interment fee. Based on the County's interest in implementing a PCF, we propose PCF allowances applied to the right of interment fees as follows:

- 25% for full and green burials, and in-ground cremation
- 15% for columbaria niches and scattering

These allowances reflect the higher ongoing maintenance required for plots compared to niches and scattering. Similar Alberta communities of Red Deer, Medicine Hat and Edmonton were reviewed, and the proposed PCF is aligned with, and in some cases lower than, these communities. The proposed PCF is based on discussion with County staff and the typical allowance in BC cemeteries where PCF is required. PCF contributions and interest earned on the PCF are not considered revenue in the financial model since these funds are held in trust.

PCF projections show the accumulated balance based on the PCF fees collected. For projection purposes, we assume an annual interest rate of 3% will be accrued and retained in the PCF. Since the cemetery site should be chosen to accommodate capacity beyond 30 years, the interest earned on the PCF over the next 30 years is not expected to be enough to maintain the cemetery in perpetuity. The PCF allowances should be reviewed regularly in the future to ensure the balance will generate enough interest to maintain the cemetery once it reaches capacity. The projected PCF balance in 10-year increments is provided in the figure below. Interest in year 30 (2053) is estimated to be approximately \$81,000.

PCF CONTRIBUTION PROJECTIONS

Perpetual Care Fund	2024-2033	2034-2043	2044-2053	30-Year Total
Contributions	\$358,160	\$631,084	\$897,776	\$1,887,020
Interest	\$46,526	\$248,172	\$595,929	\$890,628
Total Earned (Gross)	\$404,686	\$879,257	\$1,493,705	\$2,777,648
Average Per Year	\$40,469	\$87,926	\$149,371	\$92,588

Costs

The municipal cemetery will incur two types of costs – capital costs and operations/maintenance costs.

Capital costs are one-time costs associated with cemetery infrastructure development. Capital investments are expected initially to build the cemetery and every 10 years afterwards to develop the space needed to meet projected demand. A high-level estimate of capital costs is provided in the figure below based on capital costs per hectare in other communities. Costs are in 2022 dollars, with a further escalation rate of 4% annually until the capital construction year. Capital costs will be further refined along with the development of a concept plan and phasing plan should the County decide to pursue a full-service community cemetery.

CAPITAL IMPROVEMENT PROJECTIONS

Year Required	Costs (2022\$)	Costs (Escalated)
2024	\$1,000,000	\$1,169,859
2034	\$1,128,200	\$1,736,812
2044	\$1,662,000	\$3,787,313
Total Capital Improvements	\$3,790,200	\$6,693,983

Operating costs are associated with the ongoing operations of the cemetery, including administration, site maintenance, and the labour and equipment to conduct interments. There are two types of maintenance required in a cemetery. One is maintenance of the grounds, which is similar to maintenance of a park, including grass care (e.g., mowing, weeding, fertilizing, watering), litter removal, and tree and shrub care (e.g., pruning, trimming, weeding, fertilizing, watering). The other type of work is related to interments, requiring excavating and backfilling for in-ground interments, and opening and closing of niches.

Most communities have their parks operations or municipal infrastructure crews maintain their larger cemeteries. Interments can be conducted by parks operations staff, engineering/public works crews, or by contractors. The estimates for operations in Scenario 1 are based on all operations being conducted by County staff.

For the financial analysis, operating costs include:

- cemetery staff requirements for administration, interments, and general site maintenance
- equipment funding and financing, materials, and other costs

Staff costs are based on a rule-of-thumb that recommends staff positions at a ratio of approximately 1 full time equivalent (FTE) per 42 interments. Estimated cemetery staff requirements are shown in the table below and account for the following:

- In 2024, construction is anticipated to prepare for accepting interments in 2025. For the first year, only 0.5 FTE is estimated for a Cemeteries Manager to manage initial cemetery development needs, with no additional staff requirements
- FTEs are phased in over the first years of operation based on the following percentages of FTEs – 75% in 2025, 80% in 2026 and 2027, 85% in 2028, and 90% in 2029, with the full staff complement expected starting in 2030. This reflects the expectation there will be a gradual increase in interment demand at the cemetery

CEMETERY STAFF REQUIREMENTS (5-YEAR AVERAGES) FOR STRATHCONA COUNTY COMMUNITY CEMETERY

Cemetery Position (Annual FTE)	2024- 2028	2029- 2033	2034- 2038	2039- 2043	2044- 2048	2049- 2053	30-Year Annual Average
Cemeteries Manager	0.4	0.5	0.6	0.7	0.9	1.0	
Cemeteries Clerk	0.3	0.5	0.6	0.7	0.9	1.0	
Cemeteries Clerk - PT	0.0	0.0	0.3	0.4	0.4	0.5	
Operations - Lead Hand/Equipment Operator	0.6	1.0	1.1	1.2	1.4	1.5	
Operations - Labourer/ Groundskeeper	0.5	0.7	0.8	0.9	0.9	1.0	
Summer / Seasonal Labour	0.2	0.3	0.7	1.2	1.7	2.0	
Total Annual FTEs	2.0	3.0	4.2	5.2	6.1	6.9	
Annual Interments	54	155	184	218	258	301	
Interment per FTE	27	52	44	42	42	44	
Average Annual Staff Operating Costs	\$181,812	\$260,426	\$348,421	\$417,557	\$486,693	\$546,233	\$373,524

Equipment and materials would need to be purchased to operate the cemetery (see figure below). Some equipment is expected to be shared resulting in an allocation of those equipment expenses to be attributable to the cemetery. Where the equipment allocation is expected to increase, the range is provided. Equipment costs are depreciated annually over the service life of the equipment. Equipment costing less than \$5,000 is not usually depreciated but is included in the expenses for the financial analysis.

EQUIPMENT COSTS AND ANNUAL AMORTIZATION EXPENSES

Asset Description	Year Installed	Service Life	Asset Value	Equipment Allocation	Annual Amortization
Vehicle	2024	10	\$80,000	50%-100%	\$4,000-\$8,000
Backhoe	2024	10	\$300,000	50%-75%	\$15,000-\$22,500
Gator	2024	10	\$30,000	100%	\$3,000
Lawnmower	2024	15	\$35,000	50%-75%	\$1,167 - \$1,750
Push lawnmower	2024	5	\$1,000	100%	\$200
Lowering Device	2024	5	\$7,500	100%	\$1,500
Chain/Cable Rigs	2024	10	\$7,500	100%	\$750
Misc Burial Equipment	2024	5	\$15,000	100%	\$3,000
Misc Lawn Maintenance	2024	5	\$15,000	100%	\$3,000
Misc General Maintenance	2024	5	\$7,500	100%	\$1,500
Reel & Hose system	2024	10	\$22,500	100%	\$2,250
Fuel Tank	2024	25	\$30,000	100%	\$1,200
Oil Tank	2024	25	\$4,500	100%	\$180
Shoring Device	2024	10	\$7,500	100%	\$750
Total			\$563,000		\$37,497 - \$49,580

The initial anticipated developed site area for the cemetery is 0.4 ha, increasing by 0.48 ha (total site 0.88 ha) in 2034, and increasing again by 0.6 ha (total site 1.48 ha) in 2044. These are conservative estimates, allowing space for full interments (including green burial), cremation plots, columbaria, and scattering gardens, plus roads, paths, trees, gathering spaces, drainage infrastructure, and a perimeter fence with space beside it.

Other annual expenses to operate and maintain the cemetery consist of a \$5,000 annual allowance for future building maintenance / utilities.

Total operating cost estimates are shown in the figures below. Operating costs will increase as the number of interments increases and the developed area of the cemetery grows due to staff requirements. All costs are in 2022 dollars.

CEMETERY OPERATING COSTS PROJECTIONS

Category	2024-2033 Average	2034-2043 Average	2044-2053 Average	30- Year Annual Average
Staff Salaries/ Benefits	\$221,119	\$382,989	\$516,463	\$373,524
Equipment Amortization	\$39,097	\$41,497	\$49,580	\$43,391
All Other Expenses	\$5,000	\$5,000	\$5,000	\$5,000
Total Annual Operating Costs	\$265,216	\$429,485	\$571,043	\$421,915
Annual Interments	104	200	280	195
Operating Costs per Interment	\$2,539	\$2,149	\$2,040	\$2,166

CEMETERY OPERATING COST ASSUMPTIONS

Staff Position	Salary (FTE)
Cemeteries Manager	\$136,182
Cemeteries Clerk	\$75,522
Cemeteries Clerk - PT	\$75,522
Operations - Lead Hand/Equipment Operator	\$90,293
Operations - Labourer/Groundskeeper	\$72,883
Summer / Seasonal Labour	\$47,985

Cash Flow Projections

Cash flow projections use projected revenues and operating costs to determine annual surplus/deficit amounts, which determine the effects on County finances. Inflation is excluded for revenues and operating costs as we assume fees will be adjusted annually to account for actual inflation. For projection purposes, we assume an annual interest rate of 3% will be accrued and retained in the Capital/Operating Reserve Fund.

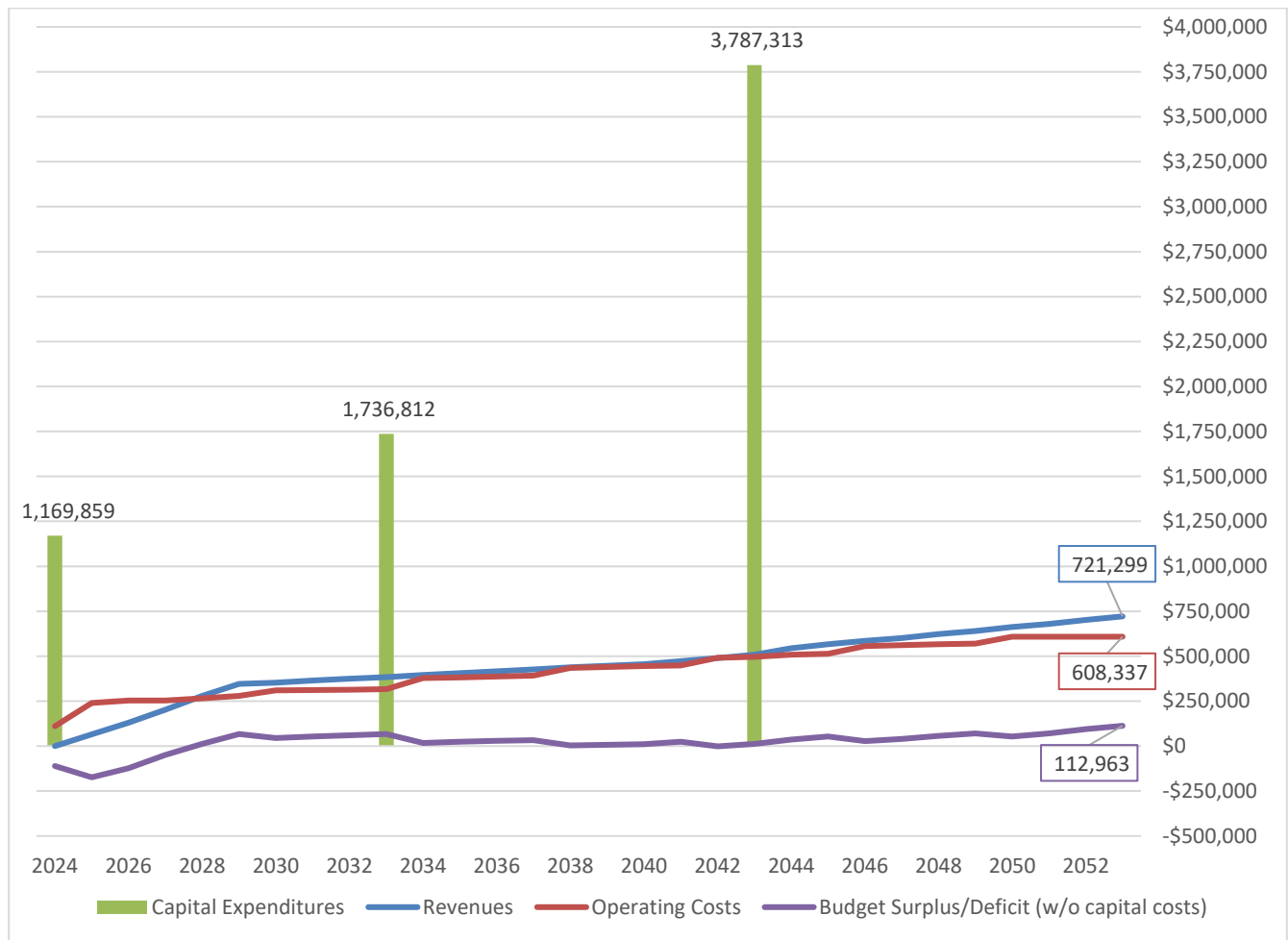
Revenues are projected to be zero in year 1 as capital improvements will be under construction with full interment services available at the beginning of 2025. Since there will likely be a gradual increase in interment demand, the demand is phased in between 2025 and 2029, starting at 20% of market demand in 2025 and increasing by 20% annually to reach full market demand in 2029 or year 6.

When we ran this scenario using the average comparable fees, as outlined in the fees section, the annual surplus/deficit without capital expenditures in 2024 was -\$110,000 and the annual surplus/deficit with capital expenditures was -\$1.3M. Over 30 years, these values cumulatively totaled -\$4.7M and -\$11.4M, respectively. We therefore calculated the 30-year cash flow projections using Edmonton's South Haven fees, and the other costs detailed in this section are provided in the figure below on an annual basis.

30-YEAR CASH FLOW PROJECTIONS

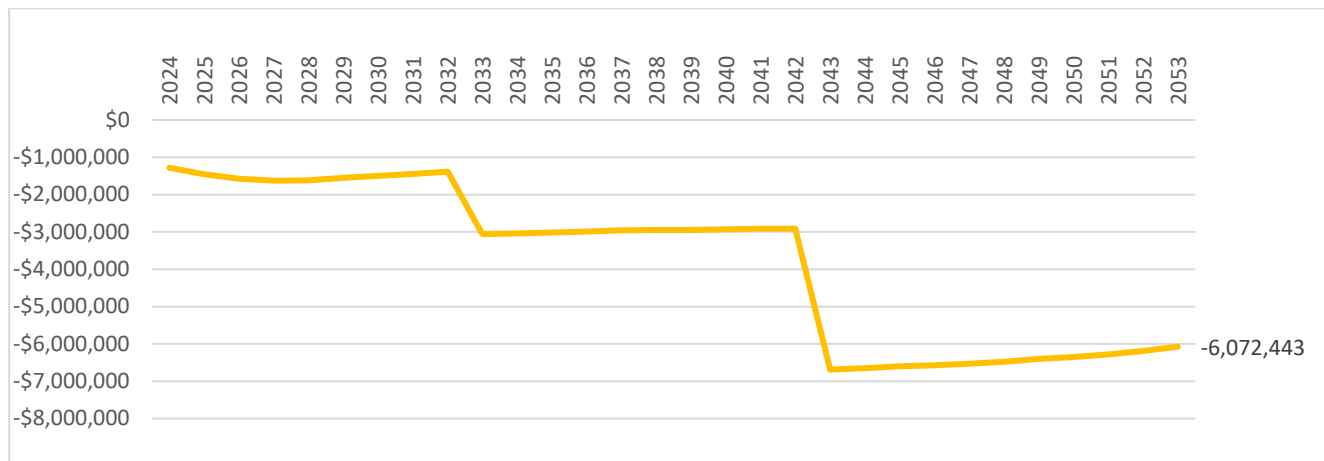
Year	Revenues	Operating Costs	Capital Costs	Annual Surplus/Deficit w/o Capital Expenditures	Annual Surplus/Deficit w/ Capital Expenditures
2024	0	110,588	1,169,859	-110,588	-1,280,446
2025	66,007	239,599	0	-173,592	-173,592
2026	130,649	252,739	0	-122,090	-122,090
2027	202,587	252,739	0	-50,152	-50,152
2028	278,744	265,879	0	12,865	12,865
2029	346,541	279,019	0	67,521	67,521
2030	353,475	309,300	0	44,176	44,176
2031	365,201	311,699	0	53,502	53,502
2032	374,890	314,098	0	60,792	60,792
2033	382,698	316,497	1,736,812	66,201	-1,670,611
2034	395,841	377,796	0	18,045	18,045
2035	406,458	382,595	0	23,863	23,863
2037	425,720	392,192	0	33,528	33,528
2038	437,905	434,610	0	3,295	3,295
2039	445,979	439,409	0	6,570	6,570
2040	454,495	444,207	0	10,288	10,288
2041	472,576	449,006	0	23,570	23,570
2042	489,373	491,424	0	-2,051	-2,051
2043	507,618	496,223	3,787,313	11,395	-3,775,917
2044	545,043	509,104	0	35,938	35,938
2045	567,165	513,903	0	53,262	53,262
2046	584,719	556,321	0	28,398	28,398
2047	600,570	561,120	0	39,450	39,450
2048	622,542	565,918	0	56,624	56,624
2049	640,810	570,717	0	70,093	70,093
2050	661,784	608,337	0	53,448	53,448
2051	679,498	608,337	0	71,161	71,161
2052	702,445	608,337	0	94,108	94,108
2053	721,299	608,337	0	112,963	112,963
Total	13,278,984	12,657,443	6,693,983	621,541	-6,072,443

REVENUE, CAPITAL COSTS, OPERATING COSTS AND BUDGET SURPLUS/DEFICIT (30 YEARS)



The capital/operating cumulative balance is comprised of the annual surplus/deficit amounts. The balance in 2053 is projected to be approximately -\$6.1M. This represents the value of cemetery infrastructure and operating costs not funded through revenues.

30-YEAR CAPITAL/OPERATING CUMULATIVE DEFICIT WITH CAPITAL COSTS



2.2 Scenario 2

Summary

Scenario 2 involves partnering with one or more existing cemeteries to offer cemetery services based on the capacity of the respective cemetery. Preliminary conversations were held with several existing cemeteries who were identified as possible candidates based on the space they have available and/or their previously-expressed interest in partnering. The following analysis is based on estimates from these preliminary conversations. Further discussion would be required to determine the specifics of a partnership with the County, based on the needs of each cemetery.

Rural and Faith-based Cemeteries

Most rural and faith-based cemeteries provide full interments (mostly single depth and a few double depth), and burial of cremains over traditional burial plots and in cremation plots. Two cemeteries will soon have columbarium niches, and one is offering green burial.

These cemeteries are typically administered by volunteers. Maintenance and operations are usually a combination of contracting services and volunteer efforts.

Based on historic average annual demand, the rural and faith-based cemeteries capture 15% of the resident market share (13% of burial and 2% of cremation).

Assuming this portion of the market share remains the same over 30 years, projected total demand will reach approximately 630 burial and 730 cremains (1,360 total) interments.

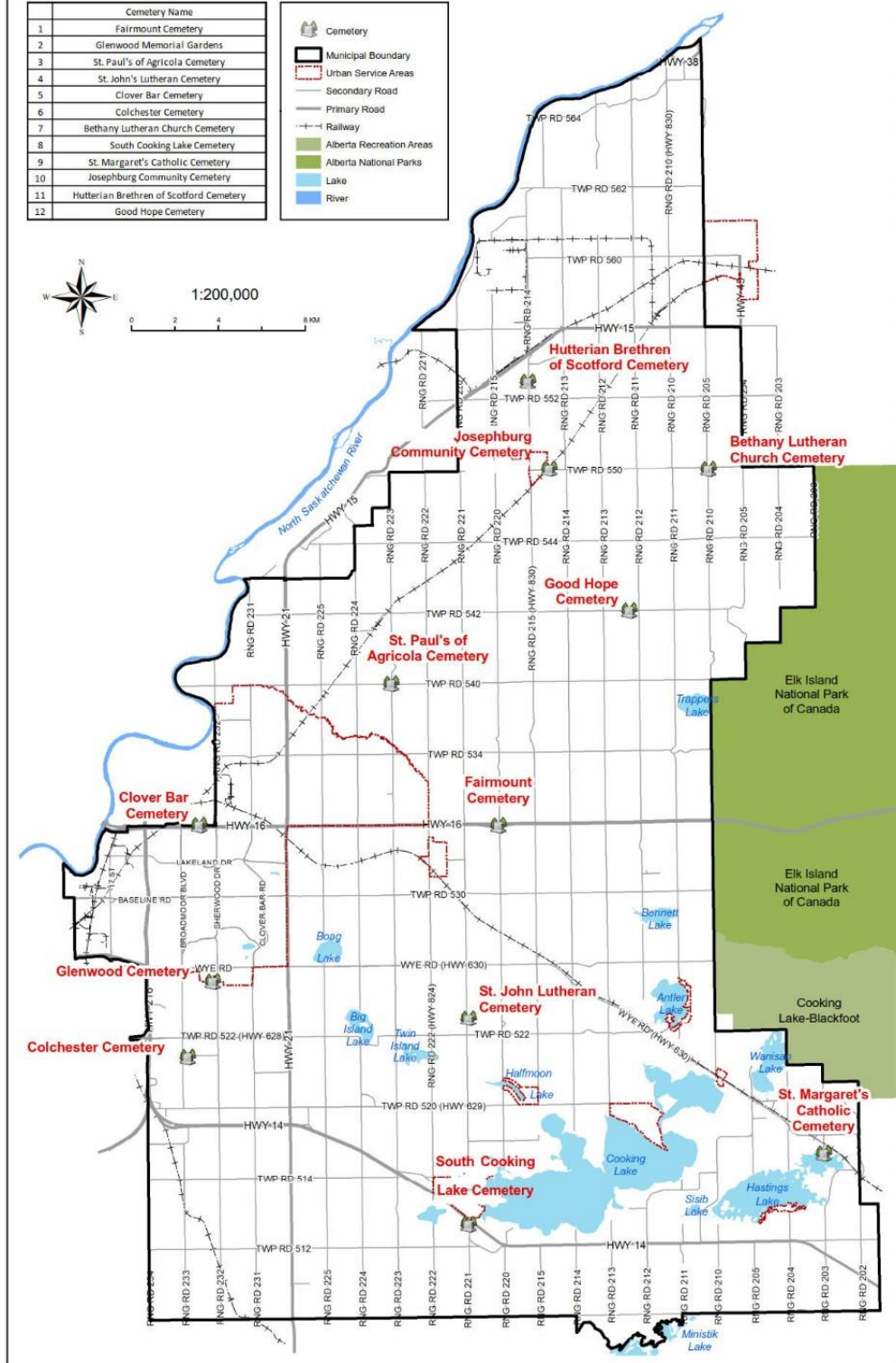
The table below shows an estimate of the remaining capacity at rural and faith-based cemeteries per information provided by these cemeteries. The focus is mostly on full plots because of the space they require. Most cemeteries allow multiple cremation interments within a full plot. There were some cemeteries that the County was unable to contact and their information has not been captured here.

Cemetery	Plot Availability (Estimate)	Notes
Colchester Cemetery	100 full burial	Anyone can be interred there
Fairmount Cemetery (Ardrossan United Church)	420 full burial	Non-denominational, open to the public, they ask about connections to the cemetery or church
Josephburg United Church of Christ (Reformed) Cemetery	1,500 full burial	Anyone can be interred there
St. Margaret Roman Catholic Cemetery	50 full burial	Open to members and local residents only
Cooking Lake Cemetery	340 full burial	Available for all Strathcona County residents
St. Paul's Agricola Cemetery	160 full burial	Anyone can be interred there
Clover Bar Cemetery	250 full burial	Not in Strathcona County, but close Public cemetery owned and operated by City of Edmonton
Total Estimate	2,820 burial (excluding interring cremains on full burial plots)	

In addition to the rural and faith-based cemeteries listed above, Glenwood Memorial Gardens has a 60-acre site, of which 40% is currently developed. The cemetery is approaching 11,000 interments (burial and cremation) and has capacity to accommodate the demand for at least 30 years. South Haven Cemetery in Edmonton is another cemetery nearby that has significant capacity.

Cemeteries in Strathcona County

	Cemetery Name
1	Fairmount Cemetery
2	Glenwood Memorial Gardens
3	St. Paul's of Agricola Cemetery
4	St. John's Lutheran Cemetery
5	Clover Bar Cemetery
6	Colchester Cemetery
7	Bethany Lutheran Church Cemetery
8	South Cooking Lake Cemetery
9	St. Margaret's Catholic Cemetery
10	Josephburg Community Cemetery
11	Hutterian Brethren of Scotford Cemetery
12	Good Hope Cemetery



Disclaimer: The information on this map is based on the most current information available to Strathcona County Geographic Information Systems. Strathcona County does not warrant its accuracy or suitability for any particular purpose. The information on this map is not intended to replace engineering, financial or primary records research.

Author: Strathcona County GIS Team Date: Feb 05, 2018

Partnership Forms and Projections

Potential Partnership Forms

There are multiple forms that a partnership could take, depending on the interests of the cemetery. The following are some preliminary options:

- The County could take over administration, operations, and maintenance. Land ownership would need to be negotiated, as would many other aspects of the partnership.
- The County could take over administration, operations, and maintenance of a designated portion of the cemetery.
- The County could begin supporting the cemetery with administration and maintenance, with responsibilities increasing over time if the cemetery's volunteers become less available.

Projected Demand

To assist the County in understanding potential revenues and costs, projections are based on the assumption that the County would partner with two rural cemeteries. Two cemeteries were used for this exercise because of their potential interests in partnering and differing characteristics and opportunities. Projected interment demand for potential partner cemeteries is based on the following assumptions:

- The locations of the rural cemeteries may not be ideal and/or may experience noise issues, therefore the market capture in this scenario is reduced to 20% of the original 30% market share for burials and 20% of the original 35% market share for cremations, which results in revised market shares of 6% and 8% respectively for interments in potential existing cemeteries.
- Each cemetery may not offer a full range of new cemetery services (e.g., one cemetery may provide only in-ground cremation, niche, and scattering interments while another may provide only full and green burial options).
- Interment demands assume only 80% of the full interment projections will be interred in the first three years; this is a conservative estimate that allows time for County residents to become familiar with the new interment options and locations.
- Where there are opportunities to provide new service options requiring capital improvements, these are expected to be constructed in 2024 and available in 2025.
- Assumptions used to calculate the number of spaces required to meet the interment demand (e.g., average capacity in double depth plots) are similar to Scenario 1.
- Existing demand at rural cemeteries will remain as forecasted.

The projected interments and space requirements based on the assumptions above are provided in the figures below. These figures include a minimal allowance for plots that may have been purchased pre-need.

PROJECTED 10-YEAR INTERMENTS

Interment Service	2024-2033	2034-2043	2044-2053	30-Year Total Projected
Total Burials	135	160	231	525
Total Cremations	262	393	511	1,166
Total Interments	397	553	742	1,691

PROJECTED 10-YEAR SPACE NEEDS

Interment Service	2024-2033	2034-2043	2044-2053	30-Year Total Projected
Total Burials	78	94	139	311
Total Cremations	200	276	360	836
Total Interments	278	370	499	1,147

Financial Analysis

Revenues and Fees

Just as in Scenario 1, this analysis is limited to the right of interment and interment fees as these are the primary sources of revenue. All financial projections are preliminary and for initial consideration only as these values are based on multiple variables dependent on the nature of any specific partnerships the County may pursue.

Right of interment refers to the amount paid for the use of a plot or niche.

We expect the right of interment fees would either reflect the existing cemetery fees, or where fees are lower than the average of comparable municipal cemeteries in the region, fees would be increased to the comparable average to ensure a sufficient level of cost recovery. Due to the significantly lower number of projected annual interments compared to Scenario 1, we expect the County would hire a contractor to perform interments (open/close); therefore, interment fees would be based on the cost for services plus a small charge to cover County administration costs.

Interment fees refers to the amount paid for burial or placement of remains in a niche.

In year 1 (2024), gross revenues are projected to total \$41,000. Revenues are projected to increase annually as demand increases, resulting in projected gross revenues in year 30 (2053) of \$111,000.

Perpetual Care Fund

Proposed PCF allowances would align with those proposed in Scenario 1 consisting of 25% for in-ground cremations and 15% for niche interments and scattering, calculated on the right of interment. For PCF projections, we assume interest will be accrued annually at a rate of 3% that will be retained in the PCF.

The balance in the PCF in year 1 (2024) is projected to total \$6,000, increasing to \$490,000 in year 30 (2053).

Costs

Capital costs would likely be needed for improvements to meet the demand for full and green burial, cremation plots, columbarium niches, and interments in a scattering garden. Construction of columbaria and additional capital improvements over 30 years are estimated at around \$680,000 in 2022 dollars.

Operating costs are based on the assumption that the County would provide in-house administrative services in the form of a cemetery manager. Grounds maintenance and interment-related work (open/close) are assumed to be contracted out. This makes good financial sense when the cemetery sites are relatively small and/or located far from County operations bases. Contracting out open/close services is reasonable due to the limited number of anticipated annual interments in each location.

The financial analysis assumes the following approach to operating costs:

- County staff support administration of the cemeteries
- Limited equipment allocation for cemetery manager and allowance for miscellaneous supplies
- Contracted services for grounds maintenance (including grass care, litter removal, shrub/tree care, etc.)
- Contracted services for interment related work (open/close)

We estimate that a cemeteries manager will be required in year 1 (2024) on a part-time basis, increasing over 30 years to nearly full time by 2053. Projected operating costs assume the demand for a cemeteries manager is phased in over the first three years to allow for a gradual increase in demand and need for staffing.

Equipment and materials required will be minimal, including partial use of a vehicle, which will increase over time, and a small allowance for miscellaneous general maintenance. Operating costs for interments are based on the projected number and type of interments each year and will cover staff requirements for administration and liaising with contractors. Total projected operating costs in year 1 (2024) total \$85,000, increasing to \$201,000 in year 30 (2053).

Financial Projections

Based on the projected revenues, operating, and capital costs described above, the 30-year cash flow projections are provided in the table below. Inflation is excluded for revenues and operating costs as we assume fees will be adjusted annually to account for actual inflation. Capital improvements are escalated at 4% annually.

Over 30 years, the financial analysis shows a projected deficit of approximately \$2.7M, capital costs included. These financial projections are high level estimates and revenues are dependent on the actual fees charged. If the County were to charge fees higher than the comparable average, revenues would increase and the deficit would decrease.

30-YEAR CASH FLOW PROJECTIONS

Year	Revenues	Operating Costs	Capital Costs	Surplus/Deficit w/o Capital Expenditures	Surplus/Deficit w/ Capital Expenditures
2024	41,000	85,000	275,000	-44,000	-319,000
2025	48,000	86,000	0	-38,000	-38,000
2026	50,000	86,000	0	-37,000	-37,000
2027	55,000	111,000	0	-56,000	-56,000
2028	56,000	113,000	158,000	-57,000	-215,000
2029	54,000	113,000	0	-60,000	-60,000
2030	59,000	115,000	0	-55,000	-55,000
2031	60,000	115,000	0	-55,000	-55,000
2032	61,000	115,000	0	-54,000	-54,000
2033	62,000	120,000	169,000	-57,000	-227,000
2034	65,000	121,000	0	-56,000	-56,000
2035	66,000	125,000	0	-59,000	-59,000
2036	66,000	129,000	0	-63,000	-63,000
2037	68,000	132,000	0	-64,000	-64,000
2038	69,000	137,000	0	-67,000	-67,000
2039	70,000	145,000	0	-75,000	-75,000
2040	72,000	146,000	0	-74,000	-74,000
2041	77,000	146,000	0	-69,000	-69,000
2042	78,000	147,000	0	-69,000	-69,000
2043	79,000	156,000	80,000	-77,000	-157,000
2044	86,000	167,000	0	-80,000	-80,000
2045	87,000	167,000	0	-80,000	-80,000
2046	93,000	172,000	0	-78,000	-78,000
2047	94,000	172,000	0	-78,000	-78,000
2048	95,000	180,000	0	-85,000	-85,000
2049	99,000	182,000	0	-83,000	-83,000
2050	102,000	183,000	0	-81,000	-81,000
2051	105,000	187,000	0	-82,000	-82,000
2052	107,000	187,000	0	-80,000	-80,000
2053	111,000	201,000	0	-90,000	-90,000
Total	\$2,235,000	\$4,241,000	\$682,000	-\$2,003,000	-\$2,686,000

2.3 Scenario 3

Scenario 3 focuses on actions that the County could take to expand cemetery services without building or operating a cemetery. The following supporting actions involve ways to enhance the delivery of services through the existing cemeteries and an opportunity for scattering on municipal land. These could be pursued individually or collectively as key County actions or combined with Scenarios 1 or 2.

Supporting Action 1 - Publicize opportunities at existing cemeteries

During community engagement for the Community Cemetery Assessment, it became clear that there is high public awareness of a few key cemeteries. These include the private cemetery in Strathcona County and the large public cemeteries in Edmonton, particularly South Haven, which is the major City cemetery closest to Strathcona County.

There is little public awareness of the faith-based and rural cemeteries, and that the majority of these offer cemetery services to all Strathcona County residents at affordable rates, regardless of faith. In the County's regular satisfaction survey What We Heard reports, participants identified that there was a lack of information related to cemetery options in the County. County staff have also received inquiries from residents about cemetery services available.

One supporting action for the County is therefore to publicize the opportunities at existing cemeteries on the County website, pending permission from the relevant cemeteries. Preliminary discussions show significant interest in this from some of the cemeteries, as many do not have information available online.

This would make information on cemetery options more available to County residents, and it could help the existing cemeteries increase their revenues. The costs to the County would be minimal. It is not possible to predict how many County residents might choose to use the services of these existing cemeteries if the options were more widely communicated.

Supporting Action 2 - Designate a location on public land for scattering in the County

Another supporting action is to designate a location for scattering on public land in the County. This could be in a County park that is largely green space and trails, i.e., not developed with recreation facilities.

The *Alberta Cemeteries Act* does not address cremated remains because cremation is considered final disposition. Whereas placement of remains in a cemetery offers protection in perpetuity, because cemeteries are registered sites, there would be a caveat on using any other land for scattering, as it would not be protected in perpetuity. Legislation requires columbaria to be placed in a cemetery, church, or crematory.

Final disposition means what ultimately happens to a physical body after death. It is a legal term with different specific definitions.

The *Province of Alberta* does not prohibit scattering on lands regulated by the Province. The process of scattering cremated remains in these locations should consider the impact to the public and the environment. Alberta Environment and Parks recommends the following guidance, in summary:

- Cremated remains should be completely pulverized prior to scattering
- Cremated remains should be fully dispersed such that no obvious remnants of scattering remain
- Only biodegradable vessels may be used when scattering cremated remains and no other objects may be deposited with the cremated remains
- Cremated remains should be scattered to avoid developed areas or high public activity areas
- Cremated remains should be scattered to avoid the depositing of high concentrations in one location
- If a ceremony is to take place, it should not impede the enjoyment of others in a public setting
- Care should be taken to ensure that cremated remains are not scattered near drinking water intakes or recreational water activities, such as swimming areas
- Some municipalities have followed up on this with their own policies on scattering. For example, the City of Edmonton allows the scattering of cremated remains in open waterways. This includes the North Saskatchewan River as well as any creek or ravine. Some provincial parks, including Strathcona Science Provincial Park, also allow scattering of cremated remains.

The County could establish a scattering area in a park for very little cost, at the minimum bringing forward a bylaw change to establish a specific area where scattering was permitted, posting the opportunity on the County website, and placing a sign at the location with information and protocols. Some of the key information for the sign would include the caveat about site protection, guidelines similar to those of the Province, and limitations on County responsibilities or record keeping. It would be important for parks maintenance staff to visit the location regularly to ensure that protocols are followed and that the site is kept in a respectful condition.

This supporting action could make scattering more available to County residents. The costs would be minimal to low.

Supporting Action 3 - Connect rural and faith-based cemeteries with local supports

Supporting action 3 is about providing options to support rural and faith-based cemeteries, many of which have high historic values. Strathcona County has the following cemeteries :

- Bethany Lutheran Cemetery
- Colchester Cemetery
- Fairmount Cemetery
- Josephburg United Church of Christ (Reformed) Cemetery
- St Paul's of Agricola Cemetery
- St. John's Lutheran Cemetery
- St. Margaret Roman Catholic Cemetery
- Fort Saskatchewan Hutterite Cemetery
- Good Hope Cemetery
- Cooking Lake Cemetery

Many cemeteries indicated that, while they currently have the volunteers to administer and maintain the cemetery, this may increasingly become a challenge as volunteers age. To support the ongoing operation of rural and historic cemeteries, the County could facilitate connections with local volunteer supports and resources.

There is a trend in some municipalities, including Edmonton, to take over community cemeteries so they do not fall into disrepair. Historic cemeteries that are no longer in operation are cultural resources that offer rich information on the past, and it is important to maintain a respectful place of rest for those interred there and those who may come to pay their respects. In Strathcona County, all of the cemeteries contacted (efforts to reach Bethany and St. John's Lutheran were unsuccessful) still conduct interments, even if on a very limited basis.

2.4 Scenario Comparison

Cost Comparison

A comparison of the cash flow analysis for Scenarios 1 and 2 is provided in the figure below.

SUMMARY CASH FLOW ANALYSIS – SCENARIO 1 AND SCENARIO 2

Scenario	Revenues	Operating Costs	Capital Costs	Surplus/Deficit w/o Capital Expenditures	Surplus/Deficit w/ Capital Expenditures
Scenario 1- Full Service Cemetery	\$13.3M	\$12.7M	\$6.7M	\$0.6 M	-\$6.1M
Scenario 2 – Cemetery Partnership	\$2.2M	\$4.2M	\$0.7M	-\$2.0M	-\$2.7M

Costs to pursue Scenario 3 would be minimal.

Key Factors

The following is a high-level summary of the three scenarios:

- **Scenario 1** provides an exclusive new cemetery for County residents, but at the highest cost, and it is dependent on finding a suitable site ideally close to Sherwood Park
- **Scenario 2** provides opportunities to partner with existing cemeteries, but the quality of the cemetery experience may be compromised, and the cost is still significant
- **Scenario 3** provides opportunities to support existing cemeteries, but the County would have limited control over cemetery services and experiences

3. Next Steps

Should Council decide to proceed with the cemetery project, they would select a preferred scenario and supporting actions, if any. Selecting scenarios 1 and 2 would require a Phase 4 of the project, while selecting scenario 3 would not require Phase 4 and could be completed by County administration. The following future actions are associated with each of the scenarios:

- **Scenario 1:** (Phase 4 required) - identify and evaluate potential locations for a cemetery, including site analysis, stakeholder and community engagement, and a recommendation for a preferred site
- **Scenario 2:** (Phase 4 required) – review potential cemeteries in terms of their capacity to support interments, negotiate partnership(s), conduct financial analysis, and identify cemetery services to be provided at the partner cemetery(ies)
- **Scenario 3:** (Phase 4 not required) and action is supported by County administration
 - **Supporting Action 1** – collect information on existing cemeteries and prepare and post material on the County’s website
 - **Supporting Action 2** – identify and evaluate potential locations for scattering on County land and complete any bylaw changes required
 - **Supporting Action 3** – facilitate connection of existing cemeteries with volunteer supports and resources